

Genesee County, New York

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*Agricultural and Farmland
Protection Plan*



Farmland Protection Plan

Agricultural Development Plan

Cost of Community Services Study for the Town of Byron

SWOT Analysis

Maps

Chronology of the Development of the Genesee County Agricultural and Farmland Protection Plan

- May 10, 1994 Planning Department staff advises the Genesee County Agricultural and Farmland Protection Board at their regular meeting that \$300,000 in State funds have been made available for the development of County Agricultural and Farmland Protection Plans.
- November 29, 1994 Genesee County Agricultural and Farmland Protection Board discusses the development of an Agricultural and Farmland Protection Plan for Genesee County. Board requests information from the NYS Department of Agriculture and Markets and other counties which are developing plans.
- September, 1997 A key recommendation of the Genesee County Comprehensive Plan calls for the County to, "prepare a countywide Agricultural and Farmland Protection Plan".
- July 22, 1998 Meeting of representatives from Planning Department, SWCD, Cooperative Extension and Real Property Tax Office held to discuss the development of a Genesee County Agricultural and Farmland Protection Plan.
- August 21, 1998 Follow-up meeting of representatives from Planning, SWCD, Cooperative Extension and Real Property Tax Office held to discuss the strategy for the development of an Agricultural and Farmland Protection Plan.
- May 7, 1999 Meeting with Stuart I. Brown Associates and representatives from Planning, SWCD, Cooperative Extension and Real Property Tax Office held to discuss the development of an Application for Funding of an Agricultural and Farmland Protection Plan.
- May 28, 1999 Meeting with Stuart I. Brown Associates and representatives from Planning, SWCD, Cooperative Extension and Real Property Tax Office held to review various components of the Application for Funding of an Agricultural and Farmland Protection Plan.
- July, 1999 Application for Funding of an Agricultural and Farmland Protection Plan completed with the assistance of Stuart I. Brown Associates.
- July 29, 1999 Application for Funding of an Agricultural and Farmland Protection Plan approved by the Genesee County Agricultural and Farmland Protection Board and submitted to the NYS Department of Agriculture and Markets
- November 18, 1999 Planning Department staff advises the Genesee County Agricultural and Farmland Protection Board at their regular meeting regarding the progress of the County's Application for Funding.
- December 15, 1999 NYS Department of Agriculture and Markets notifies the County Legislature that a grant in the amount of \$50,000 will be awarded for the development of an Agricultural and Farmland Protection Plan for Genesee County.

February, 2000	The Genesee County Legislature officially adopts a resolution accepting the NYS Department of Agriculture and Markets award of \$50,000 to develop an Agricultural and Farmland Protection Plan.
March 22, 2000	Request for Proposals for consulting services to provide technical assistance to Genesee County on the development of an Agricultural and Farmland Protection Plan issued.
April 14, 2000	The Genesee County Agricultural and Farmland Protection Board meets to discuss the progress of the development of the Genesee County Agricultural and Farmland Protection Plan and the consultant proposals which were submitted.
April, 2000	Proposals for consulting services to provide technical assistance to Genesee County on the development of an Agricultural and Farmland Protection Plan reviewed by the Consultant Selection Committee consisting of representatives from the Board, Planning Department, SWCD, Cooperative Extension and Real Property Tax Office.
May 4, 2000	Three planning consulting firms interviewed. Agricultural and Community Development Services (ACDS) and its sub-contractors, the American Farmland Trust and Peter J. Smith & Co., is recommended by the Consultant Selection Committee as the firm to assist the County.
May 24, 2000	Genesee County enters into an agreement with Agricultural and Community Development Services for the provision of technical assistance to Genesee County on the development of an Agricultural and Farmland Protection Plan in an amount not to exceed \$70,000.00.
June 29, 2000	Agricultural and Farmland Protection Plan Kick-Off Meeting - Genesee County Building No. 2.
July 20, 2000	News release issued pertaining to the development of an Agricultural and Farmland Protection Plan for Genesee County. Extensive article published in the Batavia Daily News on July 26, 2000.
November 14, 2000	Agricultural and Farmland Protection Plan Project Meeting and Agricultural Land Preservation Techniques Training Session - Cooperative Extension.
February 20, 2001	Agricultural and Farmland Protection Plan Project Update Meeting - Richmond Library.
March 20, 2001	Genesee County Agricultural and Farmland Protection Board meets and officially approves the plan and adopts a resolution to recommend the plan to the County Legislature.
May, 2001	Agricultural and Farmland Protection Plan Recommendation No. 7 revised to reflect input from Legislator John Sackett.

- April 30, 2001**

Copies of the Agricultural and Farmland Protection Plan sent to Genesee County Farm Bureau, Cooperative Extension Board, Genesee County Chamber of Commerce Agricultural Committee, Comprehensive Plan Land Use Focus Group, Genesee County Chamber of Commerce Business Development Committee, Genesee County Soil and Water Conservation District Board, Genesee County Industrial Development Agency Board and County Planning Board for review.
- June 19, 2001**

Article pertaining to the Agricultural and Farmland Protection Plan and Public Hearing is published on the front page of the Batavia Daily News
- June 20, 2001**

Presentation of Agricultural and Farmland Protection Plan to Committee of the Whole. Agricultural and Farmland Protection Plan Public Hearing.
- November 7, 2001**

County Legislature's Ways and Means Committee forwards plan adoption resolution to full Legislature.
- November 14, 2001**

County Legislature acts on Agricultural and Farmland Protection Plan adoption resolution.

The Genesee County Agricultural and Farmland Protection Plan was crafted under the direction of the Genesee County Agricultural and Farmland Protection Board and through the efforts of the County Departments of Planning and Real Property Tax Services, the Genesee County Soil and Water Conservation District and Cornell Cooperative Extension of Genesee County, with the assistance of Agricultural and Community Development Services, the American Farmland Trust, and Peter J. Smith and Company. Throughout the process of developing the Plan, citizen participation was emphasized. Numerous informal meetings and conversations were held between the ACDS consulting team, the involved County Departments, local farming organizations, individual farmers, agribusinesses and other representatives of the farming community.

Genesee County: Agricultural and Farmland Protection Plan

March 22, 2001

TO: GENESEE COUNTY AGRICULTURAL & FARMLAND PROTECTION BOARD

FROM: AGRICULTURAL & COMMUNITY DEVELOPMENT SERVICE, INC.
AMERICAN FARMLAND TRUST
PETER J. SMITH & COMPANY

RE: COMPLETION OF AGRICULTURAL AND FARMLAND PROTECTION PLAN

The ACDS, Inc. study team would like to thank the Genesee County Agricultural and Farmland Protection Board for the opportunity to work with the community while it developed the Genesee County Agricultural and Farmland Protection Plan. We were also pleased to hear that the Board accepted the plan on March 20, 2001 and look forward to following its progress.

As follow-up to our last meeting, the study team wished to summarize both the plan and the process the Board, the Genesee County Legislature, County and Town Agencies, and other impacted parties must engage to fully implement this plan.

PLAN SUMMARY

The Genesee County Agricultural and Farmland Protection Plan is a compendium of two strategic plans; the Farmland Protection Plan and the Agricultural Development Plan; an analysis of the fiscal impact of specific land-uses in the Town of Byron called the “Town of Byron Cost of Community Services Study”, and maps detailing critical geographic and demographic data. Collectively, these studies address land-use, economic development, planning, policy formation and many other issues. Below is a summary of the key findings and recommendations.

FARMLAND PROTECTION PLAN

The Genesee County Farmland Protection Plan sets forth a series of sequential recommendations that lead, ultimately, to the creation of “Agricultural Security Districts” and a County-wide Purchase of Development Rights Program. This plan includes background information on Agricultural Land Preservation in New York, an analysis of techniques used within the discipline, and case studies of best practices that are relevant to Genesee County’s unique situation.

A summary of the recommendations from the Farmland Protection Plan follows:

Recommendation 1: Refine the Strategic Farmland Map and incorporate it into the Smart Growth Plan. The map itself should become a companion to the Smart Growth Plan and be used with it to inform town decision-making on land use and infrastructure issues.

Genesee County: Agricultural and Farmland Protection Plan

Recommendation 2: Reaffirm the importance of existing agricultural districts especially with regard to water and sewer extensions. The decision of one or more towns to allow lateral access without extenuating circumstances could create a precedent that endangers agricultural district integrity as well as other farmland protection measures throughout the County.

Recommendation 3: Conduct an ‘audit’ of each town’s zoning and subdivision provisions and recent past development patterns to help the towns understand the potential impact on maintaining a critical mass of farmland. Once the audits are conducted, the County Planning Department and the Agriculture and Farmland Protection Board should host a summit of all town officials to present results and discuss alternatives.

Recommendation 4: Consider the designation of an ‘agricultural production zone’. The concentration of large, highly-productive farms in Genesee County, as well as smaller farms clustered together, may lend themselves to a designation of a zone to protect the land’s ‘highest and best use’ – production agriculture.

Recommendation 5: Consider the use of incentive zoning as a mitigation tool. Take the opportunity with incentive zone to leverage protected land or protection funds when upzoning land within the Smart Growth Development areas.

Recommendation 6: Develop new funding sources specifically for a farmland protection fund. See farmland protection as avoidance of future infrastructure costs, by finding ways to tap the engine of future development and protecting the investment you make.

Recommendation 7: Create ‘Enhanced Agricultural District Program’ for mid-term protection of Farmland. Involves a voluntary commitment to restrict non-farm development for a period of 10 years, with automatic re-enrollment, in exchange for annual payments and priority in Genesee County's participation in the state's PDR program.

Recommendation 8: Prepare to Purchase Development Rights. Set an acreage goal, develop dedicated revenue sources, refine the selection components, and position Genesee County, with its exceptional resources to make maximum use of increasing State PDR funding.

Recommendation 9: Integrate a farmland protection component into the County’s public education efforts about agriculture.

Recommendation 10: Conduct periodic estate planning seminars for farmers and professionals.

Recommendation 11: Advocate for implementation of the Agriculture Development Plan.

Genesee County: Agricultural and Farmland Protection Plan

The recommendations in this plan are designed to be carried out sequentially and under the direction of the Genesee County Government.

AGRICULTURAL DEVELOPMENT PLAN

The Agricultural Development Plan consists of a menu of options for agricultural economic development opportunities. The study team realizes that the County will not be able to implement all aspects of these recommendations, but expects that this list should spark a debate that helps to further classify, refine, and prioritize agricultural development initiatives. As priorities are developed, key agencies should adopt them as part of their individual work plans, and the County should integrate them into its Master Plan.

The Agricultural Development Plan identifies six key focus areas in which to undertake 38 new initiatives or renew current efforts. These six focus areas are:

- Economic Development
- Business Development
- Policy and Planning
- Work Force Development
- Public Outreach and Education
- Regulation and Legislation

A summary of these recommendations follows:

ECONOMIC DEVELOPMENT

Recommendation 1: Promote Innovative Financing Options. Genesee's agricultural industry shows signs of outgrowing the region's existing capital resources, which consist mostly of community banks and the Farm Credit System. This is due largely to the concentration of large, diversified farming operations as well as the presence of numerous entrepreneurial agricultural and agriculturally-related businesses.

Recommendation 2: Retain, Expand, and Recruit Agribusiness.

Recommendation 3: Create a Research and Development Grant Program. Genesee's innovative agribusinesses are a hotbed of entrepreneurial development. However, funding to support early stage product development, technical services, and commercialization is limited.

Recommendation 4: Integrate Business Support Services.

Recommendation 5: Explore Regional Labor Recruitment Options.

Genesee County: Agricultural and Farmland Protection Plan

Recommendation 6: Study Labor Training Needs.

Recommendation 7: Prepare SBDC and SCORE Counselors to Work with Farmers.

Recommendation 8: Support Leadership Development. The success of Genesee's agricultural industry is a direct function of its exemplary agricultural leadership.

Recommendation 9: Support Improvements to Rural Utilities. Specific limiting factors are the quality and cost of electric service and the unavailability of high speed internet services.

Recommendation 10: Study Water Use Issues. In some areas of the county, farmers are experiencing decreases in water quality as well as increasing competition for ground and surface water resources making water a limiting production factor in the future.

Recommendation 11: Seek State Support for a Regulatory Impact Review. Recent and dramatic changes in federal and state regulations have significant impact on farm viability.

BUSINESS DEVELOPMENT

Recommendation 1: Conduct Business Management Training. Middle and senior management skills should be supported through aggressive use of structured, targeted seminars; roundtables; and distance learning protocols. The County may also wish to explore the possibility of making a satellite location available to a regional University for the purpose of periodically running an executive MBA program for agribusinesses.

Recommendation 2: Develop Industry Specific Short Courses.

Recommendation 3: Identify and Access Product Development Resources. A significant number of Genesee farms are engaged in or are considering specific product development initiatives. The County should assist this process by identifying a network of food technologists, nutritional consultants, engineers, marketers, financiers, and others that can professionally support this trend.

Recommendation 4: Study and Improve Production Service Response. The most common theme among Genesee farmers is the lack of responsiveness/relevance of Cornell University/Regional level production support.

Recommendation 5: Engage a Grant Writer

Recommendation 6: Provide Individual Counseling (to Farmers)

POLICY AND PLANNING

Recommendation 1: Integrate County Plans, Policies, and Programs. Genesee County and numerous towns have recently engaged in or are preparing to engage in planning efforts. It is critical for the success of any county level program that these policies be integrated or at least compatible in the foremost.

Recommendation 2: Direct Consistent and Supportive Land-Use Policies. As Genesee County agriculture continues its current transformation, it will be important for the County and each town to support its growth through land-use policy and planning.

Recommendation 3: Advocate for Appropriate Infrastructure Development. Farmers in Genesee County are focused on two broad concerns regarding infrastructure development depending on their geography. These concerns are public utilities and traffic patterns.

Recommendation 4: Study Funding Mechanisms. If the County is to meet the objectives of the Agricultural and Farmland Protection Plan, it must find a means to financially support this plan beyond existing revenues and grant funding programs.

Recommendation 5: Accommodate Labor Housing.

Recommendation 6: Encourage Regional Planning and Cooperation.

Recommendation 7: Advocate Increases in State Purchase of Development Rights (PDR) Funding.

WORK FORCE DEVELOPMENT

Recommendation 1: Conduct Regulatory Compliance Workshops. Complying with personnel laws, labor housing, and hiring immigrant labor are three troublesome issues addressed by farm operators. Currently, fear of the regulatory structure is a significant barrier to full employment of the available labor pool.

Recommendation 2: Advocate for Improved Secondary Education.

Recommendation 3: Develop Distance Learning Modules. New entrants to the labor force, especially non-native English speaking populations, may need additional training resources delivered at the work place on an as needed basis.

Recommendation 4: Open Regional Dialogue on Management Recruitment. Farmers and agribusinesses throughout the region complain about the difficulty of recruiting and retaining qualified management.

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PUBLIC OUTREACH AND EDUCATION

Recommendation 1: Expand Existing Programs to Educate Policy Makers and the General Public.

Recommendation 2: Conduct Advanced Training in Economic Development and Land-Use Planning.

Recommendation 3: Develop and Promote Public Information Packets.

It is recommended that the County develop web-based information packets and public service announcements to educate the general public about agricultural practices and the importance of agriculture to the community.

Recommendation 4: Create a Neighbor Relations Program. Conflicting land-uses are becoming a larger issue as new residents move in next to farming operations, especially animal operations.

Recommendation 5: Develop an Agricultural Highlights Video Series.

REGULATION AND LEGISLATION

Recommendation 1: Create a Regulatory Compliance Bulletin. Farms are highly regulated small businesses that frequently lack the resources to know and/or to understand the regulatory requirements they face.

Recommendation 2: Advocate for Local Content Legislation. Genesee County should advocate for state legislation that would require state institutions and school systems to purchase dairy products with local dairy content.

Recommendation 3: Advocate for Improved Energy Policy. Genesee County farmers are exploring numerous alternative energy strategies, but are restricted by Niagara-Mohawk (NIMO) policies that limit the sale of power back into the NIMO grid.

Recommendation 4: Advocate for Country of Origin Labeling. It is anticipated that such labeling, when combined with compliance to the Food Quality Protection Act (FQPA), may increase the demand for local agricultural products.

Recommendation 5: Prepare Farmers for Compliance with HACCP, Food Quality Protection Act, and Food Safety Microbial Standards. The County should sponsor a winter meeting to review elements of the FQPA, HACCP, and other food safety standards and help farmers position products.

The Agricultural Development Plan deals with many of the complex issues discussed with farmers during the interview phase of this project and attempts to programmatically address these concerns and opportunities.

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TOWN OF BYRON COST OF COMMUNITY SERVICES STUDY (COCCS)

A COCS Study reorganizes local financial records of a community to determine the net effect of various land uses in a single fiscal period. The COCS study compares costs and revenues from residential; commercial and industrial; and agricultural, forest and open land sectors to provide a snapshot of the financial contributions of current land uses to local governments.

A COCS Study was completed for the Town of Byron, New York as part of a County-wide Farmland Protection Plan prepared for Genesee County. According to the results of the study completed for Byron, the average ratio of dollars generated by residential development to services required was \$1.00 to \$1.30. In other words, for every dollar raised from residential revenues, the Town spent an extra 30 cents on average in direct services. These services include education, health and human services, fire safety, and public works. The average ratio for agricultural land, forest and other open space was \$1.00 to \$.49 cents; for every dollar raised in revenue the Town retained \$.51 cents.

Average Land Use Ratios for the Town of Byron, New York

Residential	Commercial/Industrial	Agricultural/Forest/Open Space
\$1.00: \$1.30	\$1.00: \$0.77	\$1.00: \$0.49

PLAN IMPLEMENTATION

It is important for the Agricultural and Farmland Protection Board to remain focused on the objective of this effort, which is to seek the implementation of a set of programs and policies that support both the business of agriculture and the natural resources that make Genesee County such a thriving agricultural community.

To achieve this, the Agricultural and Farmland Protection Board must play an active role in educating both the agricultural community and the citizens at large about the key role agriculture and agribusiness plays in their daily lives. Furthermore, the Board must lead the public debate that precedes the adoption and implementation of this plan or elements thereof, and must remain active as agencies of the towns, County, and State respond to the intent of this document. Put simply, the plan will only be as effective as the people behind it.

As the County works through the implementation of this plan, it will be critical that an agency(s) be assigned responsibility and authority for its successful employment. It has been our experience that a program of this scale should initially be staffed by at least one dedicated, full time professional staff member in either Planning, Cooperative Extension, or Industrial Development. However, all agencies impacted should be involved and should have adopted elements of the plan within their annual work statements.

Genesee County: Agricultural and Farmland Protection Plan

KEY ISSUES

The ACDS, Inc staff members have identified several common issues that accompany agricultural and farmland protection planning. The Board should be aware of these as they proceed:

Public Buy-In: Many communities feel that the public education / public support portion of implementing these plans are full of conflict and therefore distasteful. However, public buy-in is a critical success factor and imperative for generating the support and ultimately the revenue sources necessary to offer many of the programs outlined in this document.

The Equity Argument: Nearly all communities considering revision to land-use ordinances, implementation of purchase of development rights programs, water-sewer access, and other land-use issues go through the equity value debate. This is a legitimate debate that in most cases is based as much in fear as it is in fact. Discussion of the following issues may be helpful:

- Most land-use changes stabilize and/or enhance equity value, not de-value it.
- Equity value is at its least stable where there are few or no land-use restrictions.
- Purchase of Development Rights programs are voluntary. They do not force farmers into lowering the value of their “retirement equity.”
- Purchase of Development Rights programs are very consistent with the property rights movement because they allow a farmer/landowner more options to recover the intrinsic value of the land (agricultural/resource value) while at the same time enjoying the proceeds of development by selling the development rights bestowed by law.
- Agriculture, despite many peoples’ view to the contrary, is an industrial use. Most zoning restricts the co-mingling of residential and industrial uses because of the natural conflict of uses. This is also appropriate in agricultural areas.
- Farming pays more in revenue than it uses in services and is a critical part of balancing any political jurisdiction’s fiscal position.

Policy Integration: Agricultural programming is most effective when it is integrated into broader policy discussions and plans. Therefore, it is important for the Agricultural and Farmland Protection Plan to become an integral part of the County’s overall planning initiative.

Once again, thank you for the opportunity to participate in this planning project.

FARMLAND Protection Plan

Genesee County, New York

February 2001

Agriculture and Community Development Services, Inc.

Genesee County Farmland Protection Plan

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Genesee County Farmland Protection Plan

EXECUTIVE SUMMARY

The best farmland land protection program cannot, by itself, save the business of agriculture when no attention is paid to the economics of local farming. By the same token, the erosion of the land base it needs to operate can undermine the best economic development efforts and skillful farm managers. When development pressure and weak land use controls artificially inflate productive land values, then agricultural communities are vulnerable. And vice versa, the will to take these steps to sustain farmland will depend in large part on the viability of the agricultural industry in Genesee County.

The *Background* section of this plan looks at what is currently available in the farmland protection toolbox in the state of New York. These include agricultural districts that bring right-to-farm protections to operations, layers of tax relief, and a statewide purchase-of-developments program, which is presently only modestly funded but is expected to grow. Participation in that program requires a planning effort such as the one reflected in this entire document including the economic development components.

Looking beyond Genesee County and New York State, the Findings sections summarizes the variety of tools in the farmland protection toolbox. At the local level, planning and zoning techniques are critical. When an area strives to sustain its agricultural economy and protect farmland, these objectives should be reflected in the planning and zoning process. The communities around the nation making the greatest strides to protect the land base for their agricultural industry are those who employ a combination of techniques. The case studies present some modifications and creative applications of the basic tools by communities around the country. Each illustrates a point of some relevance to Genesee County as its designs its local initiatives. This section also outlines the issues to consider with Genesee County's participation in the State Purchase of Development Rights (PDR) Program. A set of eligibility criteria and a ranking formula for Genesee County are included in the first Appendix. Finally, the thoughts of the agriculture community, collected in a series of interviews, are summarized.

When it comes to planning for the protection of its agricultural land base, Genesee County has several strengths not always present when a community puts it's mind to this complex task. Namely, Genesee County contains a combination of excellent soils and climate conditions, along with strong economic indicators for industry viability. Agriculture remains a major economic force in the county and is home to some very large operations as well as many smaller ones. At the same time, suburban development (along with its inevitable fragmentation and land use conflicts) is only beginning to occur. It is a moment in time when the potential threat to a critical mass of farmland is present but is not yet overwhelming. That means that there is time for Genesee County and its towns to better prepare themselves for the next ten to fifteen years – perhaps 'to change in order to stay the same'.

Based on an analysis of the Genesee County's current situation this plan recommends a significant ramping up of the County and towns' farmland protection efforts. They include:

RECOMMENDATION 1: **Refine the Strategic Farmland Map and incorporate it into the Smart Growth Plan.** The map itself should become a companion to the Smart Growth Plan and be used with it to inform town decision-making on land use and infrastructure issues.

RECOMMENDATION 2: **Reaffirm the importance of existing agricultural districts especially with regard to water and sewer extensions.** The decision of one or more towns to allow lateral access without extenuating circumstances could create a precedent that endangers agricultural district integrity as well as other farmland protection measures throughout the county.

RECOMMENDATION 3: **Conduct an ‘audit’ of each town’s zoning and subdivision provisions and recent past development patterns to help the towns understand the potential impact on maintaining a critical mass of farmland.** Once the audits are conducted the County Planning Department and the Agriculture and Farmland Protection Board should host a summit of all town officials to present results and discuss alternatives.

RECOMMENDATION 4: **Consider the designation of an ‘agricultural production zone’.** The concentration of large, highly-productive farms in Genesee County as well as smaller farms clustered together may lend themselves to a designation of a zone to protect the land’s ‘highest and best use’ – production agriculture.

RECOMMENDATION 5: **Consider use of incentive zoning as a mitigation tool.** Take the opportunity with incentive zone to leverage protected land or protection funds when upzoning land within the Smart Growth Development areas.

RECOMMENDATION 6: **Develop new funding sources specifically for a farmland protection fund.** See farmland protection as ‘avoidance of future infrastructure costs, find ways now to tap the engine of the coming develop, and protect the investment you make.

RECOMMENDATION 7: **Create ‘Enhanced Agricultural District Program’ for mid-term protection of Farmland.** Involves a voluntary commitment to restrict non-farm development for a period of 10 years, with automatic re-enrollment, in exchange for annual payments and priority in Genesee County's participation in the state's PDR program.

RECOMMENDATION 8: **Prepare to Purchase Development Rights.** Set an acreage goal, develop dedicated revenue sources, refine the selection components, and position Genesee County, with its exceptional resources to make maximum use of increasing State PDR funding.

RECOMMENDATION 9: **Integrate a farmland protection component into the County’s public education efforts about agriculture.**

RECOMMENDATION 10: **Conduct periodic estate planning seminars for farmers and professionals.**

RECOMMENDATION 11: **Advocate for implementation of the Agriculture Development Plan.**

INTRODUCTION

Unlike other industries, the basic natural resources of agriculture - soil and climate - cannot simply pick up and move when residential neighbors become bothersome, land holdings become fragmented, or land prices get too high. All soils and climates are not the same nor are they interchangeable. Add to that the fact that conversion to non-farming uses is usually irreversible. That makes securing a base of valuable resource land vital to the long-term mutual benefit of the industry and the individual operators. The problem of productive farmland loss is complex and solutions often begin with the structure of land use controls. In Genesee County, land use is controlled at a relatively small level of government, in the towns and villages. Meanwhile, the critical mass of land needed to sustain the agricultural industry in a county or region functions at a much larger scale than a single town or sometimes even a county.

The best farmland land protection program cannot, by itself, save the business of agriculture when no attention is paid to the economics of local farming. So too can the best economic development efforts and skillful farm managers be undermined by the erosion of the land base it needs to operate. When land values are artificially inflated (based on something other than the land's productive value) by development pressure and weak land use controls, then agricultural communities are vulnerable. By the same token, the will to take these steps and sustain farmland protection efforts will depend in large part on the viability of the agricultural industry in Genesee County. (See also the Agricultural Development Plan.)

The plan that follows looks at what is currently available in the farmland protection toolbox in the state of New York and how some other parts of the country are tackling the issues. It contains the first steps for Genesee County's participation in the State Purchase of Development Rights (PDR) Program. The thoughts of agriculture community, collected in a series of interviews, are summarized. And recommendations are made for significantly ramping up the County and towns' farmland protection efforts. However, the best ideas are no substitute for a broadly shared vision and dogged leadership on the part of folks committed to benefiting the entire community.

In describing farmland protection efforts in Lancaster County, Pennsylvania, the authors of *Holding Our Ground* say that their "success story depends on leadership from the township officials who adopted and maintained agricultural zoning, the county commissioners who formed and continue to fund a purchase-of-development rights program, the state legislators, the citizens who formed the private, non-profit Lancaster Farmland Trust, and the capable farmers who have shown a long-term commitment to agriculture."

BACKGROUND

New York State Agriculture and Farmland Protection Initiatives

New York State first formalized its agriculture and farmland protection efforts in 1971 with the passage of the Agricultural Districts Law. The law recognizes that while agricultural land is one of the state's most important resources, farmland throughout New York is threatened by non-farm development. The law's purpose is to provide local mechanisms for keeping land in agricultural production.

The Agricultural Districts Law has been amended several times. In 1992, it was enhanced significantly to support New York State's farmland protection activities. These changes were included in the Agricultural Protection Act, signed into law that year. Among other amendments, the legislation included stronger right-to-farm protection and established a statewide agricultural and farmland protection program.

The following components of the agriculture and farmland protection efforts in New York state, many of which originated in the Agricultural Districts Law, are summarized below:

TOOLS

- ❑ Agricultural Districts
- ❑ Tax relief
 - Agricultural assessment
 - Ad valorem limitations
 - Farmers' school tax credit
 - Farm building exemptions
 - Local tax abatement
- ❑ Right-to-Farm "Package"
- ❑ Agriculture and Farmland Protection Program
 - Planning grants
 - Purchase of development rights (PDR) grants

PLAYERS

- ❑ County agricultural and farmland protection boards
- ❑ The Advisory Council on Agriculture

AGRICULTURAL DISTRICTS

In 1971, the Agricultural Districts Law set forth the concept of "agricultural districts" as an effective and politically viable way to protect New York farmland. In exchange for designation as an agricultural district farmland owners benefit from limitations to utility ad valorem taxes, protection from local regulations that might impinge on necessary farming practices, and limited protection for nuisance suits under right-to-farm legislation.

An agricultural district is initiated when interested landowners submit a proposal to their county legislative body. The owners must collectively own at least 500 acres (or 10 percent) of the land proposed for the district. In considering the agricultural district proposal, the county legislature evaluates:

- ❑ The viability of active farming in the district and adjacent areas
- ❑ The presence of viable farmland that is not actively farmed
- ❑ The extent of other land uses
- ❑ County development patterns and needs

Once the county legislative body adopts an agricultural district, the commissioner of New York State Department of Agriculture & Markets must certify the district. Agricultural districts are reviewed every eight years by the county legislature.

Agricultural districts have been created in 50 of New York's 57 counties. As of 1997, 408 districts encompassed more than eight million acres statewide, with an average district size of approximately 20,000 acres. In Genesee County 183,983 farmed acres are currently enrolled in agricultural districts. (See the *Existing Land Use and Agricultural Districts MAP*)

TAX RELIEF

Tax relief is an important issue for farmers. Farms need land to operate and property taxes on farmland are a significant expense. Taxes on farm buildings are often substantial as well. Farmers often say, "Cows don't go to school," which reflects the concept that taxes on agricultural land should be proportionate to its demand on municipal services and its ability to generate income. Because farmland tends to provide more in property tax revenues than it requires in public services, keeping it in production may help control the cost of community services.

Since overtaxed agricultural land may be more susceptible to conversion to non-agricultural uses, tax relief measures may also be considered a farmland protection tool. The expense of property taxes may discourage farmers from buying land and can force existing farmers to sell. Farmers' savings from property tax relief programs can be significant and may make the difference between staying in business or selling out. Several state and local programs now exist to offer various kinds of property tax relief for farmers.

Agricultural Assessment

New York's Agricultural Districts Law established agricultural assessment as a way to provide property tax relief for farmers. Agricultural assessment allows farmland to be taxed for its agricultural value rather than its market value. Any land used for agricultural production may qualify if it meets the acreage and income requirements established by the Agricultural Districts Law. Land does not have to be located in an agricultural district to receive the assessment.

Agriculture & Markets maintains an agricultural land classification system based on soil productivity. The system consists of 10 primary groups of mineral soils and four groups of organic (muck) soils. In determining agricultural assessment, the assessor multiplies the state certified assessment value for each soil group by the total number of acres within the soil group. The assessor then totals the sub-amounts and applies the local equalization rate to determine the parcel's agricultural value.

Land placed under agricultural assessment and then converted to a non-agricultural use is subject to conversion fees. These payments equal five times the taxes saved in the last year during which the land was receiving an agricultural assessment, plus 6% interest compounded annually for each year that the assessment was granted (up to five years).

Ad Valorem Limitations

The Agricultural Districts Law limits the taxation of farmland for certain municipal improvements such as sewer, water, lighting, non-farm drainage, solid waste disposal or other landfill operations. Land used for agricultural production within an agricultural district cannot be taxed for such improvements unless the fees were imposed prior to the formation of the district—or unless the farm structure benefited directly from the improvement district. The fees may be imposed on a one-half acre lot surrounding any dwelling or non-farm structure located on the farm's land. In addition, the governing body of a fire protection or ambulance district may adopt a resolution to state that agricultural assessment values be used to determine the taxes levied by that district.

Farmers' School Tax Credit

In 1996, the Farmers' Protection and Farm Preservation Act created the farmers' school tax credit. This allowed eligible farmers to obtain an income tax credit (or corporation franchise tax credit) for school district property taxes.

The credit applies to school taxes paid by the farmer on land, structures, and buildings used for agricultural production in New York. Farmhouses used as personal residences do not qualify. However, some farmers may also qualify for the New York State School Tax Relief (STAR) program to receive a partial exemption on the assessment of their houses. STAR is a residential tax exemptions available to anyone in the state who meets age and/income criteria.

The farmers' school tax credit is fully funded by the state. It is neither a real property tax exemption nor is it affiliated with the agricultural assessment program. The credit does not diminish local school district revenue and does not shift the school tax burden to farmers' neighbors.

Farm Building Exemptions

Several provisions in the Real Property Tax Law exempt farm buildings or structures from property taxes. Section 483 exempts new and rebuilt farm buildings for ten years. Section 483-a

exempts entirely certain agricultural structures from taxation, including farm silos, feed grain storage bins, commodity sheds, bulk milk tanks and coolers, and manure storage and handling facilities. Section 483-c also exempts temporary greenhouses.

The Real Property Tax Law also offers a limited exemption for the rehabilitation of historic barns. Local governments and school districts may authorize a 10-year exemption for the increase in value to a reconstructed or rehabilitated barn. This does not apply to buildings that have already received exemptions, to barns used for residences, or to renovations that alter historic appearances.

Local Tax Abatement

EXAMPLES IN NEW YORK STATE:

The towns of Perinton, Penfield and Webster in Monroe County have enacted local tax abatement programs in exchange for term conservation easements. Authorized by Section 247 of the General Municipal Law, these programs offer reductions in property taxes to participating landowners.

In Saratoga County, the town of Clifton Park recently enacted a local tax abatement program for owners of 15 or more acres of farmland or open space who agree to keep their land in farming, or open, for at least 15 years. Two adjacent landowners can apply if their combined acreage meets the 15-acre minimum. Landowners who convert their land prematurely face penalties.

In Clifton Park, most commercial farmers—already eligible for agricultural assessment and the Farmers’ School Tax Credit—have not participated in the new local program. The 15-year minimum term may have inhibited participation, especially since the farmers are already receiving the benefits of agricultural assessment. Nevertheless, more than 1,437 acres were approved for the program in its first year of existence, including 741 acres of farmland. This farm acreage, mainly ineligible for agricultural assessment, will remain in agriculture and may provide a buffer for the town’s remaining commercial farms as development encroaches.

RIGHT-TO-FARM “PACKAGE”

The continued development of agricultural areas has increased the potential for conflicts between farmers and their neighbors. In 1992, the Agricultural Districts Law was amended to add a limited defense for farmers against private nuisance lawsuits. Commonly referred to as the right-to-farm law, all 50 states have enacted some kind of nuisance protection law. Generally, these provisions aim to strengthen the ability of farmers to defend themselves in a nuisance suit brought by a neighbor or local government.

Right-to-farm laws also may be used to shield farmers from excessively restrictive local laws or to ward off intrusive and unwanted public infrastructure. Right-to-farm provisions can improve the viability of farm businesses since a “farm-friendly” local business climate can allow farmers to invest more in the future of their operations.

Despite the ambitious tone of their title, right-to-farm laws are not meant to shield farmers from all legal disputes with neighbors. However, they assert that a person who voluntarily moves into the vicinity of the nuisance activity (which is interfering with his or her enjoyment of the property) has no right to expect that a court would restrict such an activity.

The Agricultural Districts Law now provides five types of right-to-farm protections for farm businesses:

- 1) Definition of Agriculture—Requires the commissioner of New York State Department of Agriculture & Markets to determine whether land uses are agricultural in nature.
- 2) Local Ordinance Provision—Provides protection against laws that unreasonably regulate farm operations in agricultural districts.
- 3) Notice of Intent—Requires analysis of proposed public projects that may impact farms in agricultural districts.
- 4) Sound Agricultural Practice Determinations—Offer limited protection from private nuisance claims.
- 5) Disclosure Notices—Inform property buyers about farming practices before they purchase property in an agricultural district.

Many notice-of-intent filings concern proposals to extend water and sewer lines into farming areas. These filings are so common that Agriculture & Markets has developed guidelines for water and sewer transmission mains located wholly or partially within an agricultural district. Three of the four guidelines relate to construction. They strive to minimize the disruption of farm enterprises, address soil compaction and erosion, and provide repair for any damaged agricultural drainage systems. The fourth guideline recommends that future water and sewer service be provided only to agricultural structures.

AGRICULTURAL AND FARMLAND PROTECTION PROGRAM

New York state's Agricultural and Farmland Protection Program was enacted in 1992 as part of the Agricultural Protection Act. The program encourages counties and towns to work with farmers to promote local initiatives that help maintain the economic vitality of agriculture and protect the industry's land base.

Under this program, funds are available for counties to develop agricultural and farmland protection plans. Since 1994, almost 40 counties have received planning grants through the state's Environmental Protection Fund to develop such plans. In 1996, the state amended Article 25—AAA to provide counties that have approved plans, or eligible municipalities, with implementation grants to purchase development rights to farmland.

Planning Grants

County agricultural and farmland protection boards, in conjunction with local soil and water conservation districts and the United States Department of Agriculture Natural Resources Conservation Service (USDA NRCS), develop agricultural and farmland protection plans. These plans locate important county farmland, analyze the agricultural and environmental value of such farmland and identify threats to its continued agricultural use. They also describe activities, programs and strategies that will help keep the land in agriculture.

Completed agricultural and farmland protection plans, while tailored to the specific concerns of their region, have addressed four critical issues:

- ❑ Agricultural viability and profitability—For agriculture to succeed, it must be profitable.
- ❑ Agricultural land use and farmland protection—Maintaining the land base for agriculture is crucial to its success as an industry.
- ❑ Agricultural awareness and public education—Public support for agriculture depends on educational efforts that stress its importance.
- ❑ Municipal land use—Review of local laws, ordinances, regulations and comprehensive plans can help identify potential conflicts with agriculture.

Strategic agricultural and farmland protection plans are only the beginning of a continually evolving process. To ensure their greatest success, plans must be evaluated periodically and revised as needed. They also will not achieve their objectives unless the recommendations they make are enacted. Responsibility and oversight for implementation efforts must be assigned. In addition, future actions should be prioritized in order to focus efforts once the plan has been adopted.

Funding sources for implementation also need to be identified and obtained. Some implementation efforts, such as purchasing development rights, can make use of state farmland protection grants. Other initiatives, such as agricultural economic development, likely will require local funding sources as long as state funds are not available for that purpose. Still other initiatives may serve as catalysts for new statewide or regional programs or may create new partnerships between public and private sectors.

Purchase of Development Rights (PDR) Grants

In 1996, the New York State Legislature provided eligible municipalities that have approved agricultural and farmland protection plans with implementation grants to purchase development rights (PDR) on farmland. PDR is a voluntary farmland protection technique that pays farmland owners for permanently protecting the land for agriculture.

In general, landowners possess a variety of rights to their property, including the rights to use water resources, harvest timber or develop the property consistent with local regulations. Some or all of these rights can be transferred or sold to another person. PDR programs enable landowners to separate and sell their right to develop land from their other property rights. In New York state, participating farmers are typically offered the difference between the restricted value of the land and the fair market value of the land. A permanent conservation easement is recorded in the land records binding all future owners. The land remains in private ownership and on the tax rolls.

In New York, PDR was first funded in 1996. From 1996 to 1999, three rounds of farmland protection grants were awarded to counties and towns throughout New York, totaling nearly \$16 million. Funds for PDR are allocated from the state's Environmental Protection Fund and the open space account of the Clean Water/Clean Air Bond Act. Grants have been awarded to communities across the state.

Since the program's inception, competition for the state's limited funds has been intense. Eight applicants received \$3.7 million in grants in the first round and eleven applicants received approximately \$4.5 million in the second round. In each round, grant requests far exceeded the available funding. For example, in the third round in 1998, 12 applicants received grants of \$7.7 million in response to requests that totaled more than \$40 million. Based on widespread interest in this program around the state, funding requests are expected to continue to increase.

State PDR Program Selection Criteria

Priority is given to projects that:

- ☐ Preserve viable agricultural land
- ☐ Are in areas facing significant development pressure
- ☐ Serve as buffers for a significant natural public resource

Additional criteria are:

- ☐ Number of acres preserved
- ☐ Soil quality
- ☐ Percentage of total farm acreage available for agricultural production
- ☐ Proximity to other conserved farms
- ☐ Level of farm management demonstrated by current landowner
- ☐ Likelihood of the property's succession as a farm if ownership changes

PDR programs have become increasingly popular with farmers. Despite the recent allocation of state grants, however, current funding levels have not been sufficient to meet the growing demand for agricultural conservation easements. In the future, additional state funding will be needed to help New York communities protect their farmland from development and keep productive land in agricultural use.

COUNTY AGRICULTURAL AND FARMLAND PROTECTION BOARDS

In 1992, the Agricultural Protection Act reconstituted the former agricultural district advisory committees as county agricultural and farmland protection boards (AFPBs). To date, AFPBs have been formed in 53 of New York's 57 counties.

Agricultural and farmland protection boards, established by the county legislative body, should consist of 11 members. This includes the chair of the county soil and water conservation district's board of directors, a member of the county legislative body, a representative of the county cooperative extension, the county planning director and the county director of real property services. In addition, the board must contain at least four active farmers and an agribusiness representative (these members must reside within the county). A representative from a land preservation organization may also be on the board.

County agricultural and farmland protection boards are authorized to:

- ❑ Advise the county legislative body about agricultural districts
- ❑ Review notice-of-intent filings
- ❑ Make recommendations about proposed actions involving government acquisitions of farmland in agricultural districts
- ❑ Prepare and update county agricultural and farmland protection plans
- ❑ Request review of state agency regulations that affect farm operations within an agricultural district
- ❑ Review and endorse applications for New York PDR funds

These responsibilities provide the opportunity for AFPBs to become active partners with Agriculture & Markets in influencing state and local policy on agricultural and farmland protection issues.

ADVISORY COUNCIL ON AGRICULTURE

The Advisory Council on Agriculture (ACA) is appointed by the governor and authorized to make recommendations on state government plans, policies and programs affecting agriculture. This includes agricultural districts, agricultural assessment values and land use issues.

The ACA consists of 11 members selected for their expertise. At least five members are operators of commercial farm enterprises; at least two are local government officials. The rest represent agricultural businesses or institutions. The ACA also invites participation by the chair of the state soil and water conservation committee and the dean of the New York State College of Agriculture and Life Sciences at Cornell University.

The 1992 Agricultural Protection Act authorized two studies by the ACA. One addressed right-to-farm issues and the other addressed farm property taxes. The right-to-farm report is currently used by Agriculture & Markets to guide its sound agricultural practice determinations. The

property tax report advocated a property tax credit for school taxes paid by farmers. This recommendation was realized when the Farmers' School Tax Credit was enacted in 1996.

This chapter has been largely excerpted from the American Farmland Trust publication entitled "Action Guide: Agricultural and Farmland Protection for New York" 1999. Please see original publication for greater detail.

FINDINGS

Land Use Planning Techniques to Protect Farmland

At the local level, planning and zoning are important farmland protection tools. When a local area strives to sustain its agricultural economy and protect farmland, these objectives should be reflected in the planning and zoning process. The communities around the nation making the greatest strides to protect the land base for their agricultural industry are those who employ a combination of techniques including some of those summarized below.

COMPREHENSIVE PLANS

Comprehensive plans, also known as master or general plans, allow communities to create a long-term vision for their future. They outline local government policies, objectives and guidelines regarding development. Typically, they identify areas best suited for a variety of land uses, including agriculture, forestry, residential, commercial, industrial and recreational activities.

Comprehensive plans can establish a commitment to local agriculture by protecting natural resources and promoting farm business opportunities. Comprehensive plans can form the basis of a local farmland protection strategy by identifying areas to be protected for agriculture and areas where development will be encouraged. They also should aim to conserve natural resources while providing affordable housing and adequate public services.

ZONING

Zoning is usually the chief tool, along with the water and sewer plan and transportation plan, to implement what the community agreed to work toward in the comprehensive plan. Legally, all zoning requirements must be in accordance with a comprehensive plan. Zoning controls usually function at the smallest level of government. Zoning ordinances segment portions of counties, cities and towns into areas devoted to specific land uses. They also establish standards and densities for development.

Zoning ordinances, lot size requirements and road specifications may affect agriculture immensely and should be reviewed carefully. Many local governments and planning boards assume that farming is a residential land use. Worse, they consider agriculture a temporary land use until further suburban or non-farm development occurs. As a result, farmland is often zoned in rural/residential districts, which may encourage premature conversion of the land.

Zoning can be used as a form of farmland protection. For instance, maintaining a lower density of development in an area may be beneficial to farming. Fewer neighbors mean fewer potential conflicts. Local governments can reduce the density of development in two ways: by increasing the minimum lot size or by reducing density without requiring large lots that may prove to be “too small to farm and too big to mow.”

For example, say the desired land density is one unit per five acres and the parcel in question is 100 acres. This parcel could be divided into either 20 5-acre parcels or 20 1-acre parcels and an 80-acre parcel. In both examples, the result is 20 building lots (not considering the 80-acre parcel as a separate building lot) with a density of one unit per five acres. In the latter example, however, a relatively large, agriculturally viable parcel remains.

Several different zoning techniques that may be used to encourage the protection of farmland are outlined below.

Agricultural Protection Zoning (APZ)

Agricultural protection zoning ordinances designate areas where farming is the primary land use. They discourage development that could impair the land's use for commercial agriculture. APZ ordinances also restrict the density of residential development in agricultural zones. They generally require building on small lots as opposed to dividing tracts into large, equally sized lots. Most ordinances make use of a fixed density, allowing, for instance, one dwelling for every 25 acres. Others are based on a sliding scale, with the dwelling and acreage allowances more flexible.

Agricultural protection zoning stabilizes the agricultural land base by keeping large tracts of land relatively free of non-farm development. For APZ to be effective, the area's farming industry must be profitable, and farmers must be committed to keeping their land in production.

Sliding Scale Zoning

Sliding scale zoning uses a scale to determine the number of lots that potentially could be developed in an area. Owners of smaller parcels are allowed to divide more land into lots than are owners of larger parcels. To keep farmland in productive use, maximum lot sizes (usually two or three acres) typically are established. Non-farm development is directed to less productive land.

Cluster Zoning

Cluster zoning ordinances allow or require houses to be grouped close together on small lots to protect open land. They increase density on part of a parcel while leaving the rest undeveloped. This allows the construction of the same number of houses, while minimizing the impact to the area's natural resources. New York Town Law, Section 281, allows municipalities to permit, or require, cluster development.

Cluster subdivisions may keep land open for future agricultural use, but generally they are not designed to support commercial agriculture. In addition, clustering may create tension between residential and agricultural land uses if new neighbors object to the sights, sounds and smells of commercial farming. To increase its usefulness as a farmland protection tool, provisions should

be made to protect commercial farming or recognize that cluster arrangements may be more appropriate near less-intensive farming operations.

Large-Lot Zoning

Generally, large-lot zoning (that designates minimum lot sizes as small as five to ten acres) is not considered a farmland protection technique. In fact, it may encourage the premature conversion of farmland since it often results in the purchase of more residential acreage than homebuilders actually want or need. Large-lot zoning often is used in conjunction with lists of “permitted by right” uses that fail to view agricultural areas as important commercial zones worthy of special protection from incompatible uses.

SUBDIVISION REGULATIONS

Unlike zoning ordinances, which address whether specific uses are permitted, subdivision regulations specify how development will actually occur and exactly what *form* it will take. For example, zoning ordinances designate how many lots can be developed on a parcel, but subdivision regulations determine where those lots will be located and how the land is developed. A number of techniques have been incorporated into subdivision regulations to lessen the impact of development on agriculture.

Overlay Districts

Some communities have used agricultural overlay districts to direct development away from prime farmland. While overlays lessen the impact of development on agriculture, they generally regulate how—not if—farmland is developed. So far, such districts have not been used to change underlying density requirements or limit non-farm uses. Agricultural overlay districts can be used to trigger cluster-zoning provisions, buffer strips or other performance standards covered in this section.

Performance Standards

Performance standards can minimize the impact of development on farming. They may be used to steer development away from prime agricultural soils and existing farm operations. They usually are applied on a case-by-case basis, and they require discretionary decisions by a local planning board.

Some factors that can be used as performance standards:

- Potential for conflict with agriculture
- Need to minimize the amount of converted agricultural soils
- Agricultural productivity of the land and soils involved
- Compatibility with existing or permitted uses on adjacent property

Buffers

In rapidly growing areas, development inevitably will occur adjacent to active farm operations. Based on the concept that “good fences make good neighbors,” buffers create physical barriers between potentially incompatible land uses. Buffers may be created by strips of land (from 50 to 500 feet wide) or by vegetation such as existing hedgerows, planted trees and shrubs. Some subdivision ordinances require the developers to provide the buffers. To be effective, buffers must be designed on a site-specific basis and adapted to address different types of agricultural operations. In some cases, they simply may not be effective.

MITIGATION TECHNIQUES

Mitigation techniques applied to high quality farmland refers to a “no net loss” approach to farmland protection. Land taken out of agriculture use and/or zoning must be replaced with either new land of equal size and productivity being brought into agricultural use or a fee paid by a developer to permanently protect acreage elsewhere.

In New York, the state Legislature has created a mitigation requirement in the Agricultural Districts Law. Section 305(4)(h-1) requires mitigation when land is taken by eminent domain for use as a landfill. The provision became effective January 1, 1998, representing the first time that a mitigation requirement has been applied to farmland in New York. The Army Corps of Engineers has also utilized the concepts of mitigation and “no net loss” routinely for the protection of wetlands. Such mitigation provisions are a way to balance growth and resource protection.

TRANSFER OF DEVELOPMENT RIGHTS (TDR)

Transfer of development rights programs allow landowners to transfer the right to develop one parcel of land to a different parcel of land. (Conversely, cluster zoning usually shifts density within a parcel.) TDR programs can protect farmland by shifting development from agricultural areas to areas planned for growth.

Section 261-a of the Town Law and section 7-703 of the Village Law explicitly empower municipalities to authorize transfer of development rights. Such programs are defined in these provisions as “the process by which development rights are transferred from one lot, parcel or area of land in any sending district to another lot, parcel, or area of land in one or more receiving districts.”

To implement TDR, receiving and sending districts are designated and mapped in accordance with a comprehensive plan. State law dictates that the sending district may include agricultural land and that the receiving districts must have the infrastructure needed to support increased development. Development rights are documented as conservation easements that are enforceable by the town or other designated entity. They may be bought or sold by the municipality for deposit in a development rights bank.

Flexibility is important throughout the TDR process. For TDR to work, communities must build consensus on its use as a way to protect resources and direct future growth. A market must exist for both the development rights (either in the private sector or via a municipal development rights bank) and the higher density development that will result. While the TDR technique holds promise in theory, it has not been utilized in New York due to the complexity of its administration and its unproven track record.

EXAMPLES OF NEW YORK TOWNS THAT HAVE INCORPORATED FARMLAND PROTECTION INTO THE LAND USE PLANNING PROCESS

- ❑ *Town of Pittsford*—After adopting an updated comprehensive town plan in 1995, the Pittsford Town Board developed a rating formula to evaluate the town’s remaining land resources. The highest rated parcels were identified in Pittsford’s *Greenprint for the Future* plan in 1996. The *Greenprint* steered development away from areas of ecological importance, recommending that approximately 60 percent of the town’s remaining undeveloped land be protected. In 1996, the town board approved \$9.9 million in bonds to purchase development rights and permanently protect seven farms totaling 1,100 acres.
- ❑ *Town of Stuyvesant*—In 1993, Stuyvesant (located south of Albany in northern Columbia County) was accepted into the “model communities program” of the Hudson River Greenway Communities Council, which provided funding and technical assistance for the town to develop a comprehensive plan. The plan identified agriculture as the town’s primary land use; the town has since implemented a right-to-farm law and passed a resolution declaring Stuyvesant to be an “agricultural community.” The town also is considering farmland protection techniques such as incentives for residential clustering, low-density zoning and PDR.
- ❑ *Town of Ithaca*—Located in the heart of the Finger Lakes Region, the town of Ithaca’s 1997 *Park, Recreation and Open Space Plan* incorporated recommendations from a 1992 report, *Planning for Agriculture in the Town of Ithaca*, that emphasized the importance of agriculture to the town’s economy and quality of life. The report made several policy recommendations including revising zoning regulations, integrating agricultural policy statements into the town’s comprehensive plan, creating a voluntary PDR program, and establishing a permanent town agriculture committee (which was created in 1993). The 1997 open space plan estimated the acquisition of development rights to important lands would cost the town \$3.7 million over 20 years, approximately \$15 per resident per year—a somewhat modest investment on a per capita basis. The town is currently reviewing a draft of new zoning regulations for its agricultural district to better protect agricultural land, and is setting up a structure for its PDR program.

This section has been largely excerpted from the American Farmland Trust publication entitled “Action Guide: Agricultural and Farmland Protection for New York” 1999. Please see original publication for greater detail.

Variations on a Theme – Selected Case Studies

Interest in farmland protection is growing rapidly around the country. However, one size does not fit all. The result has been a degree of modification and creativity being applied to some of the basic tools of farmland protection. The following group of case studies has been selected because each illustrates a point that has some relevance for Genesee County as it designs its local initiatives. Much about the recommendations have their roots in the experience of other places whose circumstances or earlier histories are comparable to Genesee County's. The concepts are summarized below with further documentation in the appendices.

Tackling Agricultural Viability in Massachusetts

In an effort to link agricultural economic development, environmental protection and farmland protection, Massachusetts has instituted an 'Agricultural Viability' Program. It is designed to improve the economic bottom line and environmental integrity of participating farms through the development and implementation of farm viability plans developed by teams of agricultural, economic and environmental consultants. The team assesses the current farm operation and develops approaches to increase farm income using such methods as improved management practices, diversification, direct marketing, value-added initiatives and agri-tourism. Implementation funding is available in exchange for an 'agricultural use covenant' on the property for a prescribed number of years. The amount of money available to a particular farm is related to the number of years agreed to in the restrictive covenant (five or ten years). Linking economic development funding with farmland protection serves two purposes: it directs preservation funds into strengthening the operations of working farms and it protects the public investment by holding the land for a period of time to give new management practices and ventures a chance to work. (See Appendix III for copies of the application and covenant document.)

California's 'Williamson Act' Agricultural Districts

In response to high, speculation-driven land taxes in the post war era, California enacted a law in the mid-1960's known as the Williamson Act that allows landowners to create 'agricultural preserves' by signing renewable 10-year contracts with local governments. Landowners agree to restrict use of property within the preserves to agriculture or open space for the term of the contract. In return, the land is assessed at its agricultural value. The state then reimburses the counties for approximately a third of the total property taxes lost. Since tax relief is the primary benefit that landowners receive for creating preserves, the Williamson Act is commonly classified as a differential assessment program. However, it is unusual in its connection of a preferential tax assessment with a term commitment to remain in agriculture.

The amount of acreage enrolled in the Williamson Act currently is at about 15 million acres. As of 1995, half of the state's agricultural land was enrolled in the program and more than 70% of the state's estimated acreage of prime farmland was under contract.

In 1998 California signed into law what is being called “Super Williamson Act”. It allows for the conversion of existing Williamson Act agreements into 20-year contracts, thereby forming ‘farmland security zones.’ In exchange for the extended term, landowners receive a package of additional benefits, including a 35% reduction in property taxes beyond the reduction calculated under traditional contracts. Other benefits include protection from annexation by cities and special districts, a reduced special tax rate for urban-related services, and a ban on school districts condemning and buying land in farmland security zones. There are no provisions for canceling contracts before the term expires. As a result of these longer contracts, additional funds are provided by the state to the counties to make up a portion of the lost tax revenues. Since its adoption eleven counties have applied to participate. In addition, the state has recently dramatically ramped up funding of its purchase of development rights program.

Strategic Mapping in Delaware

An unusual convergence of circumstances in Delaware as it began its farmland protection efforts turned out to be a blessing. Faced with an approved but unfunded state program and a legal requirement to map strategic farmland in the state before buying any development rights, the Delaware Department of Agriculture embarked on a strategic mapping exercise that still leads the nation and is an integral part of a booming (and now well-funded) PDR program. They modified the LESA (Land Evaluation and Site Assessment) system to suit an area-wide analysis as opposed to a site-specific analysis. It incorporates factors such as natural soils groups, availability of sewer, land use/land cover, percent of area in agriculture, agricultural investment and the presence of natural areas. The result is a map with five different colors indicating lowest to highest priority for farmland preservation in the agricultural portions of the state. The ‘color’ of the map area where a particular farm is located then corresponds to half of the points that farm scores on the PDR ranking system should it apply to sell an easement. The maps were the results of years of testing and public input. Using this method, state resources are directed to the most productive agricultural resources and operations that have the best chance of remaining viable.

Delaware also has a situation in which agricultural zoning in its three counties is very weak and function largely as rural residential development zones. Individual counties show little willingness to do anything about the agricultural zones, nor do they contribute matching dollars to the state PDR program. However, since creating an ‘agricultural districts’ is the only way to realize tax benefits, right-to-farm protections, or to be eligible to sell an easement, district participation is extremely high and may, in fact, be functioning as ‘de facto’ agricultural production zoning. Matching state funds is accomplished with landowner discounts to their full easement values. (See Appendix IV for program description and strategic mapping criteria.)

Responding Quickly to Save Critical Farms in Carroll County, Maryland

Located within easy commuting distance of both Baltimore and Washington, DC, Carroll County, Maryland set a goal for itself in the late 1970’s of permanently protecting 100,000 acres of farmland. They enacted 1:20 cluster zoning (a change from 1:1 zoning) to stabilize the land base and began vigorous participation in the state purchase of development rights program. To date they have agricultural easements on over 33,000 acres. However, they discovered that the

state program could not respond quickly enough when prime land was at the critical point of changing ownership.

The county's response was the development of a 'Critical Farms Program'. It functions as an enhancement to the state PDR program and guarantees a minimum easement value for farms that are being transferred. Applicants must be the contract purchasers or recent purchasers of a farm that qualifies for the state PDR program and that ranks high on the county's preference formula. Based on an appraisal of the value of the easement, the county offers the new owner a payment of 75% of easement value for an option for the county to acquire the easement at the end of the five-year period.

When the new owners receive the money for the option contract, they are obligated to put the farm in a state agricultural district and to offer to sell the easement to the state program for five years. If the state acquires the easement, the county is repaid the exact amount that was provided up-front (no-interest payment is required). The money is then recycled into the Critical Farms Program. At the end of five years, if the easement has not been purchased by the state, the farm owner has two options: repaying the County (with interest) for termination of the option agreement; or, accepting the easement as permanent with no additional payment from the county. Since it began in 1992, the Critical Farms Program has entered into 30 option contracts on 3,946 acres. So far almost all of easements have been purchased by the state and the remainder are in the pipeline. (See Appendix V for a copy of the application and the option contract.)

Farmland Mitigation in the West

Recently, two innovative approaches have been enacted to mitigate farmland loss. In 1995, the city of Davis, California, established an agricultural land mitigation requirement as part of a "Right to Farm and Farmland Preservation" ordinance. Adopting a "no net loss of farmland" approach, the Davis ordinance requires developers to permanently protect one acre of farmland for every acre of agricultural land they convert to other uses. Generally, developers place an agricultural conservation easement on land in another part of the city, although paying a fee may also satisfy mitigation. Protected farmland must meet certain requirements; for instance, it must contain soil comparable to the developed land and be located in one of the city's agricultural zones. As the program has proceeded, payment in lieu of acres has been encouraged in order to allow the city to leverage state PDR funds to permanently protect farmland with easements. Several of the protection transactions were fee simple acquisitions of farms, which are then leased back to farmers, and the proceeds pumped back into the mitigation fund. (See Appendix VI for the Davis ordinance.)

King County, Washington (on the edge of metropolitan Seattle) also uses a "no net loss" approach to farmland protection. In their case, it is applied to either of their two agricultural *production* zones. The zone containing their dairy farms is the most restrictive residentially (1:60) but the most conducive to commercial agriculture. The second zone, which contains mostly berry operations allows residential densities of one dwelling unit per thirty-five acres (1:35). Uses in these two zones are strictly limited to agricultural and the only building allowed must be clearly accessory to a production operation. Conversion to a non-agricultural use can

only be done with the addition of equal size and quality land to the production zone. The county also has a rural residential zone that allows one dwelling unit per ten acres. (See Appendix VI for excerpts from the King County Comprehensive Plan.)

Urban Growth Boundaries in Kentucky's Bluegrass Country

Lexington-Fayette County Kentucky long ago understood the importance of the agricultural industry to their local economy and of the resulting landscape to the essential character of the community. In 1958 they took steps to mitigate the post WWII growth explosion by enacting an Urban Service Area boundary to absorb the residential and commercial development and in the early 1960's placed a zoning district on its agricultural area restricting residential development to one dwelling unit per ten acres (1:10). Lexington was, at times in the ensuing decades, one of the fastest growing communities in the country. Nevertheless it was able to maintain its sharply defined urban boundaries, tree-lined rural roads, world-renowned horse farms and historic rural settlements. In the early 1990's, however, the ten acre requirement for a residential unit in the agricultural zone was no longer a deterrent to widespread subdivision activity and the large lot requirement was using up farmland at an alarming rate. In 1998, the joint city/county government, with broad support, including from the agricultural community, placed a temporary moratorium on development outside the urban service area and completed a comprehensive plan update. As a result the agricultural districts were rezoned to a residential density of one dwelling unit per forty acres (1:40) on condition that a local purchase of development rights (PDR) program be enacted and funded. The PDR program was designed to buy development rights (easements) at the *old zoning density* of 1:10 creating an opportunity for landowners to be compensated for the downzoning. In 2000, the city/county sold bonds and raised \$40 million to launch its PDR program.

PDR Funding Innovation in Howard County, Maryland

Faced with rapid suburbanization in the late 1980's, Howard County (located between Baltimore and Washington, D.C.) pioneered a way to fund easement purchases, up-front, while the land was still available, and in a way that used tax benefits to make the county's easement purchase offers competitive with developers' offers. The concept was inspired by the oft-repeated complaint of farmers that 'it's not what you get (for PDR), it's what you get to keep". Instead of paying with cash, the county offered an installment purchase agreement (IPA), which is a promise to pay in thirty years. By holding the IPA the landowner deferred capital gains and collected an annual stream of tax-free interest on the full value of the easement purchase transaction. The easement is permanent and runs with the land but the IPA is separable from the land and can be securitized and sold on the bond market if needed for cash. The county purchased 30-year federal zero-coupon bonds to fund the balloon payments on the agreements at the end of their terms. A zero-coupon bond requires a small downpayment relative to the face value of the bond and produces no annual interest; instead, the bond pays a lump sum when it matures. In the meantime, the county uses a portion of the local real estate transfer tax that is dedicated by law to farmland preservation to pay the interest to the holders of the IPAs. When introduced, this funding/payment mechanism invigorated the local PDR program allowing them to double in easement acreage what it had taken ten years previously to accomplish. They were able to spend about \$9 million dollars to permanently protect \$57 million worth of easements.

While begun in Howard County, use of installment purchase agreements with zero-coupon bond financing has been replicated in Harford County, Maryland, Virginia Beach, Virginia, Burlington County, New Jersey, Peninsula Township, Michigan and is currently being introduced into Pennsylvania's state PDR Program. An interesting side note is that Howard County and others using IPAs received bond rating upgrade and farmland preservation and growth management were specifically cited among the reasons given by the bond-rating houses. To outside investors, buying and extinguishing development rights is a technique for avoiding future, much greater, infrastructure costs. (See Appendix VII for a complete explanation.)

Cooperative Planning for Farmland Retention in Lancaster County, Pennsylvania

Proving that lack of uniform county zoning authority do not need to be an impediment to fostering production agriculture and protecting farmland, Lancaster County, Pennsylvania has managed to employ just about all of the major farmland protection tools. These include differential tax assessment, comprehensive planning, agricultural districts, right-to-farm laws, agricultural zoning (1:25), urban growth boundaries, purchase and transfer of development rights and private land trusts. All of this occurs in a government structure consisting of only advisory county planning land use controls in the hands of forty-one townships, nineteen boroughs and the City of Lancaster. In spite of all the jurisdictions, the county has managed an organized and multi-faceted approach to protecting its farmland. The key seems to be the presence of a strong and prospering agricultural industry and widespread commitment to protecting its land base throughout the county. (See Appendix VIII for a full description of Lancaster County's combination of tools.)

Purchase of Development Rights (PDR) in Genesee County

Local PDR programs can prevent development that would effectively eliminate the future possibility of farming in an area. Selling an easement allows farmers to cash in a percentage of the equity in their land, thus creating a financially competitive alternative to development. Producers often use PDR program funds to buy and/or improve land, buildings and equipment, retire debt and increase the viability of their operations. The reinvestment of PDR funds in equipment, livestock, and other farm inputs also may stimulate local agricultural economies.

BENEFITS OF PDR

- ❑ PDR protects farmland permanently, while keeping it in private ownership.
- ❑ Participation in PDR programs is voluntary.
- ❑ PDR allows farmers to capitalize on undeveloped assets—their land.
- ❑ PDR can be implemented by state or local governments, or by private organizations.
- ❑ PDR provides farmers with a financially competitive alternative to development.
- ❑ PDR programs can protect ecological as well as agricultural resources.
- ❑ PDR removes the non-agricultural value of land, which helps keep it affordable to farmers.

DISADVANTAGES OF PDR

- ❑ PDR is expensive.
- ❑ PDR programs generally are oversubscribed. In New York, funding for PDR has been limited, with demand far exceeding available funds.
- ❑ Purchasing easements is time-consuming. Participants in the state program generally must wait at least a year before all details regarding their easements are finalized.
- ❑ Monitoring and enforcing easements requires an ongoing investment of time and resources.

PDR PROGRAM ISSUES

The effectiveness of PDR programs depends on how well municipalities address several key issues. There are many factors that a municipality or organization needs to consider before participating in the New York State Agricultural and Farmland Protection Program or before designing their own local PDR program. These include deciding what kind of farmland to protect, which geographical areas to focus on and how to set priorities; what restrictions to put on the use of the land; how much to pay for easements; how to raise purchase funds; how to administer PDR programs; and how to monitor and enforce easements.

SETTING PRIORITIES

Setting priorities for a PDR program is an exercise in achieving balance. Since the program is voluntary, it needs to be attractive to the farmers who own the county's prime agricultural resources. Flexible easement conditions and reasonable prices to facilitate participation by

farmland owners are as important as raising the public funds to buy the easements. The process of setting priorities assumes funding and participation. It takes a number of forms.

With the development of GIS (Geographic Information Systems), strategic farmland mapping is a relatively new expression of a jurisdiction's priorities. It is a very effective way to graphically depict what is the most important and the most vulnerable land so that purchases with limited funds can be strategic. This sort of mapping is also an indispensable tool for education of the public and local officials about the connection between the agricultural resources and public infrastructure decisions. (See Genesee County Strategic Farmland MAP)

Eligibility criteria are minimum requirements for participation. Sometimes they are reflections of purpose clauses or other legal requirements in state PDR enabling legislation or local ordinances. They often include categories such as location, developability, parcel or farm size, soil quality, and stewardship provisions. These criteria are the first round of a selection process because they decide who can apply to sell easements.

Once applications are received, a ranking formula is used to decide the order in which offers will be made until the funds allocated to that 'batch' of properties is spent. It is a means of stating preferences among eligible applicants. Because the goal of the program is the long-term protection of the land base, rankings formulas typically are heavily weighted for soil quality and size characteristics and for adjacency to other farmed and/or protected land. However, they often contain categories of points measuring economic productivity, capital investment, ease of development/threat, and degree of public policy support (i.e. agricultural protection zoning) context for the purchase. (See Appendix I for PDR – Eligibility Criteria and Ranking Formula.)

AGRICULTURAL CONSERVATION EASEMENTS

The purchase of development rights to a piece of farmland places a deed restriction—known as a conservation easement or development rights agreement—on the property, protecting the land for agriculture. For this reason, PDR programs are also known as Purchase of Agricultural Conservation Easement (PACE) programs. Most conservation easements are permanent. The farmland owner retains all other rights of ownership and can continue to farm the land as he or she did before. The land remains private and on the tax rolls. The value of an easement is determined by an appraisal(s) that evaluates the property's protected value versus its unprotected value.

Agricultural conservation easements are written documents signed and acknowledged by all parties involved. They are filed with the county clerk's office so that future owners and lenders will learn about the restrictions through a title report. Depending on the circumstances of the transaction, the easement may need to meet the requirements of the New York Environmental Conservation Law and the federal tax code.

Because agriculture is always evolving, agricultural conservation easements must be flexible and tailored to meet its ever-changing conditions. Generally, they:

- ❑ Limit future uses of the land that degrade the agricultural value or productivity of the land
- ❑ Extinguish virtually all non-farm development rights (i.e., the right to build residential or non-agricultural structures)
- ❑ Encourage the business of farming
- ❑ Permit the construction of new farm buildings and farm employee housing
- ❑ Complement the right-to-farm provisions in the Agricultural Districts Law
- ❑ Do not require public access
- ❑ Leave the landowner in full ownership of the farm

DETERMINING EASEMENT VALUE

In general, the value of an easement is the fair market value of the property minus its restricted value, as determined by a qualified appraiser. For example, if the market value of an unprotected parcel of farmland is \$200,000, but worth only \$100,000 if protected with an agricultural conservation easement, then the farmer is paid the difference of \$100,000 for selling the development rights.

Landowners may choose to donate some or all of the value of their development rights as a way to permanently protect their farmland and potentially reduce income and estate taxes.

PROGRAM COSTS

Since the state PDR program requires applicants to contribute a local match, county and municipal funds are also necessary for the implementation of PDR projects. The state program will fund up to 75% of the cost of a purchased easement. The remaining 25% must be matched by local jurisdictions. The following section outlines several ways local communities can finance their PDR programs.

Bonds - In the past decade, many New York communities have recognized that farmland conservation is a long-term investment. Several of these communities have issued municipal bonds to pay for the purchase of development rights on farmland. Suffolk County on Long Island was the first. In 1976 they authorized a \$21 million bond program to pay for the development rights to thousands of acres of farmland. Since then, several towns on the eastern end of Long Island also have instituted bond programs of their own. In the 1990s, the western New York town of Pittsford authorized two consecutive \$5 million bonds to fund its farmland protection program.

General Revenues - Other communities have set aside annual appropriations to pay for farmland protection projects by using current revenues. The town of Amherst has allocated funding for its projects in this manner, and so has the town of Ithaca.

Real Estate Transfer Taxes - In 1998, the state Legislature and Governor Pataki approved a law that allowed five towns in the Peconic Bay region of Long Island to establish individual community preservation funds. The proposed funding mechanism would create a 2 percent real estate transfer tax to apply to most high-end property sales. The tax, paid by the purchaser, is based on property value above a designated threshold.

In 1998, the proposed real estate transfer tax was approved by voter referendum in all five towns as a way to raise money for the protection of farmland and other resources. The money raised in each town through tax revenues will be used to purchase development rights on farmland, as well as protect other environmentally sensitive or historic properties. New York state approval will be required before local communities can increase the real estate transfer tax.

Land Installment Purchase Obligations -In 1996, New York authorized municipalities to issue a new funding mechanism called land installment purchase obligations. The legislation was designed to make it less expensive for municipalities to acquire development rights to farmland and other open spaces. This new debt instrument, under the state local finance law, can give important tax advantages to the seller of development rights, including the benefits of installment payments and tax-free interest.

The land installment purchase obligation is considered municipal debt and will be backed by the issuing municipality. Subsequently, the bond owner has the right to insist on payment from the municipality, even if property taxes must be raised to do so. This new financing mechanism has yet to be implemented, as several technical issues must be resolved before communities can explore this funding option.

Public/Private Partnerships - Many municipalities have successfully used partnerships with private organizations to facilitate their PDR programs. In some areas, local land trusts, once formed primarily by conservationists concerned about vanishing habitat and open space, have formed to tackle the challenges of preserving farmland. A private land trust can contribute greatly to the overall bottom line of a project, and land trusts often have the available staff or needed experience that municipalities may lack.

For example, a land trust may play a key role in assembling PDR applications, holding, monitoring and enforcing easements, managing the PDR program, or providing a portion of the local match as in-kind credit or in cash. In addition, land trust involvement may increase the incentive for farmer participation, since landowners who donate an easement or a portion of their property to a nonprofit land trust may receive a federal tax deduction, thus offsetting some of their capital gains tax liability.

STEWARDSHIP AND MONITORING

Landowners can donate or sell agricultural conservation easements to the state, a municipality or a qualified nonprofit conservation organization. The agency or organization that acquires the restriction does not obtain the right to build on or develop the land, but only the right and responsibility to prevent non-farm development.

Though the New York State Agricultural and Farmland Protection Program provides funding to purchase development rights to farmland, New York State Department of Agriculture & Markets does not hold easements. The holder of an easement is obligated to monitor the land involved and uphold and enforce the terms of the agreement.

Known as stewardship, the process of holding and maintaining easements is an important consideration to any PDR program or project. Good stewardship will help ensure the perpetual nature of the easement. The municipality or organization holding the easement should set up a system for administering, monitoring and enforcing the easement terms. That involves creating baseline documentation, maintaining a good working relationship with the landowner, monitoring the property, and, if needed, addressing violations. In recognition of this permanent obligation and responsibility, project costs in the New York State Agricultural and Farmland Protection Program can include funding for stewardship expenses as part of the initial transaction for which state assistance payments are sought.

Portions of the PDR section were excerpted from the American Farmland Trust publication entitled “Action Guide: Agricultural and Farmland Protection for New York” 1999. Please see original publication for greater detail.

INTERVIEW RESULTS

WHAT IS THE COMMUNITY THINKING?

More than sixty-four members of the agricultural community were interviewed to poll the extent of knowledge of current farmland protection tools as well as to gather opinions about their effectiveness and measure the degree of openness to new or modified approaches to keeping the land base available to the industry. The range of topics covered taxes, zoning, purchase of development rights, agricultural districts, transfer of development rights and how to prioritize farms for protection.

A number of themes run through the majority of the interview answers with regard to land use and farmland protection. Almost universally mentioned was the need for better public education about the importance of agriculture to the community and about the practical aspects of farming that often results in conflicts between production agriculture and its residential neighbors. Worries about land fragmentation and beginnings of residential growth pressures in the agricultural districts were on most peoples' minds. Large-scale threat of farmland conversion seemed to be on the horizon but land base fragmentation was already seen as a problem for operation expansion. For many that translated into the need for better comprehensive planning by the towns, training of town officials in implementation of growth management tools, and controlling access to water and sewer lines.

There was a general familiarity with tools such as ag districts, purchase of development rights (PDR), zoning, transfer of development rights (TDR), right-to-farm laws, and estate planning. Agricultural districts were considered a fairly weak method of protecting the land base and right-to-farm laws were felt to have little effect on actual land conversion to non-agricultural use. Most of the interviewees indicated that they had transition plans for passing on their farms. Opinions about agricultural zoning seemed related to the size of the operation. Owners of the largest farms tended to be the most receptive to agricultural protective zoning (i.e. low residential density combined with greater flexibility for agricultural uses), mid-sized farms less so, and small farm owners were often opposed to residential restrictions.

The idea of a purchase of development rights program generally got a positive response, especially if it was tied to better town planning and to targeting the highest quality resources. When asked what makes a farm a top priority for protection many people pointed out that it is as much the skill of the operator as the prime soils that increases a farm's chances of remaining a viable operation. The ability to step in and protect a farm at the critical point when it is changing hands was also viewed as a needed tool in the coming years. Connecting some form of additional tax relief with mid-term (15-20 years) farmland protection measures got the nod from most interviewees.

ANALYSIS AND RECOMMENDATIONS

Current Conditions

When it comes to planning for the protection of its agricultural land base, Genesee County has several strengths not always present when a community puts its mind to this complex task. Namely, Genesee County contains a combination of excellent soils and climate conditions, along with strong economic indicators for industry viability. Agriculture remains a major economic force in the county and is home to some very large operations as well as many smaller ones. At the same time, suburban development (along with its inevitable fragmentation and land use conflicts) is only beginning to occur. It is a moment in time when the potential threat to a critical mass of farmland is present but is not yet overwhelming. That means that there is time for Genesee County and its towns to better prepare themselves for the next ten to fifteen years – perhaps ‘to change in order to stay the same’.

Reasons for developing and implementing a Agriculture and Farmland Protection Plan include focussing attention on the resources in need of protection, devising a strategy to protect those area, and in doing so, paving the way for the County’s participation in the state’s Purchase of Development Rights (PDR) Program. The purchase of development rights on large blocks of contiguous farmland to keep the land available for agriculture well into the future is a very important tool. It will require a financial commitment from both the County and the State of New York. If it is an adequate and sustained effort, however, the local jurisdictions will reap the most benefits in avoided infrastructure costs, fiscal stability and quality of life for its residents.

However, Genesee County also faces several significant challenges as it embarks on this effort. The first is that there appears to be little money available to provide the required matching local contribution to state PDR. And no single potential revenue source is obvious. The second is the poor zoning support in the agriculture districts for the long-term investment of PDR. Zoning that allows for relatively high residential densities (higher than 1:20) has the effect of eventually undermining the farm-friendly agricultural uses due to pressure over time from new suburban neighbors and it destabilizes the land surrounding those in which the community has invested in the long-term protection with PDR. The agricultural industry in Genesee County, as a whole, is vulnerable to ‘death by a thousand cuts’ because of a combination of factors:

1. Zoning that is ‘weak’ because it contains the potential for widespread residential development where agricultural production was intended.
2. The physical necessity for the water infrastructure to be run through agricultural areas tests the resolve of municipalities to limit lateral connections that would doom protection efforts.
3. The circumstance of multiple governmental entities (villages, towns and county) with land use decision-making or review authority makes the job of developing and

implementing a unified vision for agriculture and farmland protection a daunting but not impossible task.

A number of other conditions exist currently that were considered in development of implementation recommendations.

- ❑ The tax burden on owners of farmland, even with the preferential tax assessment, is still high relative to farmers outside of New York in the region. The higher carrying costs of the land factor into Genesee County, and perhaps all New York, farmers' ability to be competitive.
- ❑ The most widely used farmland protection tools being used in the state and the in Genesee County - agricultural districts and agricultural assessment – are not directly connected. In other words, a property can be in an agricultural district without having an agricultural assessment and vice versa. And neither requires a commitment by the landowner to maintain agricultural use for any amount of time. Opting out of an agricultural district is relatively easy and penalties for conversion to non-agricultural use are minimal, thereby potentially encouraging land speculation.
- ❑ As demonstrated by the Cost of Community Services study in the Town of Byron, farmland pays more in local property tax (even with preferential assessments) than it receives in services. This makes farmland a 'net tax positive' for towns and the county.
- ❑ The down side of the presence of many large farm operations that own and rent thousands of acres in Genesee County is the impact of a single bankruptcy and sale for development would on a town or group of towns. Unless that land can be absorbed by other farming operations, it presents a big problem, quickly, if that scale of development is not what the town wanted or had planned for.

RECOMMENDATIONS

The following recommendations are tailored to Genesee County's current situation. These ten recommendations are also informed by the experiences of other parts of the country where development threats hit sooner and faster. Genesee County is at a critical juncture. Even without enormous financial resources, it has the ability to set things in motion to be smart about absorbing future growth without sacrificing its essential agricultural identity. Farmland protection is not a destination. At its best, it is a series of coordinated steps that will need to be reassessed and adjusted as conditions change and opportunities present themselves. These are the beginning steps of a process that will grow over time. The responsibility to carry out the Farmland Protection Plan's recommendations lies with the Agriculture and Farmland Protection Board as advocates for action, and Genesee County Planning Department for planning and zoning expertise.

1 Refine the Strategic Farmland Map and incorporate it into the Smart Growth Plan.

The Strategic Farmland Map combines the basic elements for identifying the land most strategic for protection: prime soils, areas not intended for municipal services, and areas feeling the most development pressure. The Agriculture and Farmland Protection Board needs to consider whether there are other factors entering into their own definition of strategic farmland and refine and update the map on a regular basis. The Map itself should become a companion to the Smart Growth Plan and be used with it to inform town decision-making on land use and infrastructure issues. As tools are developed for protecting farmland in the county, this Map should guide the application of those tools. If carefully refined with enough community input, the Map may eventually become part of the ranking system for buying conservation easements in a purchase of development rights Program.

Any implementation measures taken by the Agriculture and Farmland Protection Plan should be viewed as implementation of the County's Smart Growth Plan as well. Conceptually, they dovetail and, in practice, they should be mutually supportive.

2 Reaffirm the importance of the existing agricultural districts especially with regard to water and sewer extensions.

Provision of water and sewer service into agricultural districts should be limited to resolving existing health problems. Access to lateral water lines running between communities should be an extremely rare occurrence. The decisions of one or several towns to allow lateral access without extenuating circumstances could create a precedent that endangers agricultural district integrity as well as other farmland protection measures throughout the county. Towns also need to consider land use conflicts when allowing non-agricultural uses in or near agricultural districts. The incremental effect will weaken the agricultural district's ability to be renewed even if that is the landowners' desire. Nevertheless, towns may realize that, without agricultural protective zoning, they lack the legal ability to limit non-agricultural uses should they be challenged.

3 Conduct an 'audit' of each town's zoning and subdivision provisions and recent past development patterns to help the towns understand the potential impact on maintaining a critical mass of farmland.

Each town should be systematically examined for elements of its land use regulations that make it particularly vulnerable to both incremental weakening of its agricultural districts by low-density residential development and/or to a major planned development should a very large land holding be sold for development. Regulations that have worked well enough for current

landowners with modest pressures to develop may, in fact, present a very different scenario with outside, increased pressures. Some technical planning assistance, perhaps with some simple map modeling, could help to illustrate the problem.

Sheer number of acres converted from farm to non-agricultural uses can be a deceptive indicator of the threat to the land base. The actual geographic distribution of low-density residential developments, for example, is often more critical than the number of acres removed from production. Because of the incompatibility between production agriculture and suburban development (odors, noise, dust, chemicals, vandalism, and trespassing), each residential subdivision has a ‘zone of conflict’ that extends its impact in all directions beyond physical property boundaries.

Once the audits are conducted the County Planning Department with the Agriculture and Farmland Protection Board should host a summit of all the town officials to present the results and to discuss alternatives. Among those, consider the following two recommendations.

4 Consider the designation of an ‘agricultural production zone’.

It is not uncommon for zoning ordinances around the country to contain a ‘purpose’ clause in its agricultural zone that permits agriculture or even intends to support and foster agriculture and then, through the details that follow, allows development at a density and/or a form that dooms agricultural production.

Zoning, in fact, had its origins in the early decades of this century as a means to geographically separate incompatible land uses – industrial factories and residential housing. There is an interesting parallel today with modern production agriculture and suburban households. Zoning can be an expression of what a community really wants to see the land used for. Is it the land base for a significant economic engine for the county or is it a holding zone just waiting to be used for residential development?

The concentration of large, highly productive farms in Genesee County as well as smaller farms clustered together in various parts may lend themselves to designation of a zone to protect the land’s ‘highest and best use’ – production agriculture. This could be a zone that is very flexible on agriculturally related zoning uses but highly restrictive to non-agricultural uses – thereby, preventing future land use conflicts. This could be accompanied by a second rural zone that functions both as an agriculturally permissive zone but also fills the need for some limited rural residential development.

5 Consider use of incentive zoning as a mitigation tool.

Section 251-b of the New York Town Law code allows for incentive zoning to be used by towns. It is defined as ‘the system by which specific incentives or bonuses are granted... on condition that specific physical, social, or cultural benefits would inure to the community.’ Included in the

definition of ‘incentives or bonuses’ is increased ‘population density’. Community benefits means, among other things cited in the law, ‘specific physical, social or cultural benefits’ or cash, in lieu thereof. This is a legal opportunity that is not widely available in all parts of the country. While the mechanics of transfer of development rights (TDR) may be too daunting right now for Genesee County, the use of incentive zoning could be used for purposes of farmland protection.

Consider the fact that municipalities everywhere periodically ‘upzone’ parcels to higher densities or to different uses as they feel the community needs them. Rarely is anything required of the landowner or developer who has just benefited from a windfall of increased value to their property. Land within the development areas surrounding each of the towns and villages that has not yet been upzoned to its highest appropriate use could be covered by an overlay of incentive zoning. Rezoning requests to higher densities could be granted (if appropriate given other conditions community) in exchange for 1) the permanent protection of like acreage in an agricultural district in the same town, or 2) for a fee paid into the farmland protection fund to be used to leverage county and/or state dollars to buy development right easements on farmland in the same town. In this way, the entire community shares the benefits of the increased values created by the rezoning.

6 Develop new funding sources specifically for a farmland protection fund.

A single source of funding for a PDR program for farmland protection in Genesee County is not immediately apparent. However, the County’s situation is not unique. Other rural jurisdictions have found some creative ways to go about accomplishing their goals. Six things to consider when looking for funding:

- ❑ *Protect your investment.* How well do your land use regulations support the money you plan to raise and spend?
- ❑ *Look to the future and put into place ways to tap the future engine of growth.* Direct proceeds by law to a farmland protection fund. Working now to get enabling legislation from the state and then enacting a real estate transfer tax will not reap enormous rewards in the short term but by the time it can, it’s usually too late, politically, to enact such a tax.
- ❑ *Look close to home* for other opportunities such as the fee-in-lieu-of incentive zoning (see recommendation #5) to leverage a town’s power to create value.
- ❑ When farmland protection is viewed as ‘*avoidance of future infrastructure costs*’ for the towns and counties, raising money with bond issues to fund purchase of development rights makes fiscal sense.

- ❑ *Don't underestimate the potential willingness of the non-farm public to pay more in taxes if they know it is going directly to farmland protection. Surveys and referenda around the country have shown a surprisingly positive reaction to property tax increases if they are dedicated to farmland protection.*
- ❑ *Think about building a reserve fund with multiple contributing sources until a) there are sufficient funds and b) a dedicated revenue source has been established to begin buying development rights.*

7

Create a county 'Enhanced Agricultural District Program' for mid-term protection of Farmland.

Incorporating elements of tax relief for farmers and a 'lease' of development rights, the 'Enhanced Agricultural District Program' involves a voluntary commitment to restrict non-farm development for a period of 10 years, with automatic re-enrollment, in exchange for annual payments and priority in Genesee County's participation in the state's PDR program. The overriding purpose of the 'Enhanced Agricultural District Program' is to help stabilize the land base while zoning is being strengthened, the County is raising funds for its match of PDR purchases, and the State increases its statewide funding for PDR. Since the holding costs of land are often cited by farmland owners in Genesee as a significant operational expense, this program would eliminate County, Town, and School District taxes. Special district taxes would apply as provided for in the standard NYS Agricultural Districts Program. Finally, the 'Enhanced Agricultural District Program' begins to integrate into a cohesive farmland protection effort a number of aspects of public policy that are designed to help agriculture but are currently applied in an uncoordinated way. These include agricultural districts with their right-to-farm protections, agricultural assessment, and investment of public dollars in the purchase of development rights.

Eligibility. The following conditions would need to be met for a parcel to become a 'Farmland Protection District':

- ❑ Located within the boundary of a New York State Department of Agriculture and Markets Certified Agricultural District.
- ❑ Participating in an Agricultural District.
- ❑ Outside of a Smart Growth Development Area.
- ❑ Be at least 10 acres.
- ❑ Contain at least 35% New York State 'Prime Soils'.
- ❑ Be developable (has some development rights based on regulations and soil capability and not covered by another restrictive easement).
- ❑ Meet any other state eligibility criteria.

Components

- ❑ The farmland owner would enter into a 10-year option contract with the county agreeing not to develop the land to a non-farm use and to keep the land available for farming.

- ❑ The farmer would receive property tax abatement (County, Town, & School District) on all agricultural lands, but not farm related, commercial, or residential structures.
- ❑ At the end of the contract term, the parcel will be automatically re-enrolled unless directed otherwise by the landowner.
- ❑ During the term of the option contract, the landowner is encouraged to apply to the state PDR program. Conversely, in order to apply to the state PDR program, a property must be enrolled in the 'Enhanced Agricultural District Program'.
- ❑ If an easement offer from the state is received, and the landowner agrees to sell, the landowner must discount the sale price equal to the total County payments thus far, not to exceed 25% of the easement value. (The County is required to match 25% of the easement cost for the state PDR Program. The landowner contribution serves as a portion of the county match.
- ❑ If, at any time during the term, a landowner chooses to opt out of the 'Enhanced Agricultural District Program', the following options apply:
 - ❑ Entire sum paid by the County must be repaid with interest (15%+). Whatever funds are collected in this fashion are then put back into the Farmland Protection Fund.
 - ❑ County has right of first refusal on purchase of the land during the term of the option contract, if it is for sale. The County would then place a conservation easement on the property and resell it for its agricultural value to be farmed. Whatever funds are collected in this fashion are then put back into the Farmland Protection Fund.

The 'Enhanced Agricultural District Program' will require the cooperation of all taxing jurisdictions within the County. As well, the State of New York will also be called upon to financially support this program. As envisioned above, participation in this concept would be permissive for the local jurisdictions which would be asked to waive 25% of the tax abatement to the landowner while the State of New York would be asked to compensate the local jurisdiction for the remaining 75% of the tax abatement. An analysis of the 'Enhanced Agricultural District Program', conducted by the Genesee County Assessor's Office, indicates that 40,912 acres would qualify at an expected annual cost of \$897,000. Thus, it is expected that the net, annual benefit to farmland owners will be \$21 per acre.

8 Prepare to Purchase Development Rights.

Genesee County already has the prime ingredients that should be the target of any statewide effort to protect New York's agricultural land base. In the coming years it needs to make a case for spending state dollars with goals, detailed criteria, a fair, efficient administrative process in place, willing landowners, supportive land use policies, and matching county funds. Of the issues

to address when developing a purchase of development rights program or deciding to participate in the state program, the four most important right now for Genesee County are:

How much farmland to protect with PDR? When deciding upon an acreage goal, keep in mind that PDR is not the only tool available for stabilizing the land base and it is doubtful there will ever be enough money to buy all the development rights in the farmed areas of the county. Nor is it reasonable to expect that all farmland owners are willing to sell their development rights. The purpose is to permanently protect sufficiently large blocks of the County's best farmland so that a future is secured for the agricultural industry. Then other unprotected but still viable farms can make decisions based on that.

What farmland to protect? This question is answered with the strategic mapping process, the eligibility criteria and the ranking formula. Use the criteria and ranking formula in Appendix I as a starting point. Test it on different quality farms in several locations for 'common sense' results and make adjustments as needed.

How much to pay for easements? Conduct a number of appraisals on farms that rank high on the formula you are using. Work with appraisers to determine the means of finding both the development value and the agricultural value of typical farms in order to find anticipated easement values. This is then used to estimate the amount of funding you will need to achieve your goal.

How to raise purchase funds? The calculations of the cost to protect your acreage goal will probably be daunting. It will underscore the need to begin now to find local dedicated and sufficient funding sources to sustain a long-term effort. It will also clarify the County's interest in advocating for increased PDR funding at the state level. An estimate of the avoided infrastructure and education costs on that acreage goal, as well as its impact on surrounding land, should help put the costs in perspective for the community.

9 Integrate a farmland protection component into the County's public education efforts about agriculture.

Just as farmland protection shouldn't be talked about without discussing industry viability, so too, farmland protection needs to be an integral part of the conversation about the business of agriculture. Public education tools need to be developed to reach different audiences.

Residential citizens need to understand the fiscal benefits of agricultural land use as well as their own potential contribution to land use conflicts. Town officials also need education and re-education as players change about the fiscal benefits and about the consequences of their decisions upon the fabric of the industry. The Cost of Community Services study for the Town of Byron, which is part of the Agriculture and Farmland Protection Plan, can be a valuable tool for explaining in relatively simple terms, the relationship between land uses (residential, commercial/industrial and agriculture) and public revenues and costs.

Farmers need to become acquainted with planning and zoning tools, the ‘Farmland Security District’ if it is developed, and about the PDR process and conservation easements.

10 Conduct periodic estate planning seminars for farmers and professionals.

Estate planning for farmers is an extremely important farmland protection tool. Training seminars need to be conducted with the land owners that incorporates information on conservation easements as well as the New York Farm Link and the New York Farm Net Programs. Local professional – lawyers, accountants, surveyors – also need to be kept apprised of these additional opportunities available for farmers when advising their clients. (See Appendix II for Tax and Estate Planning Implications of PDR for Farmers.)

11 Advocate for implementation of the Agriculture Development Plan.

Without a strong agricultural industry with skills and resources to adjust to changing markets and conditions, any effort to maintain the working landscape will be extremely difficult. Both components of this Agriculture and Farmland Preservation Plan need to be pursued rigorously and in a coordinated fashion.

APPENDIX I

PDR– Eligibility Criteria and Ranking Formula

**GENESEE COUNTY, NEW YORK
Purchase of Development Rights Program**

DRAFT

ELIGIBILITY CRITERIA

- ❑ **LOCATION:** Must be outside of any Smart Growth-designated 'Development Area'.
- ❑ **DEVELOPABILITY:** Must be able to be developed by virtue of zoning and soils suitability for septic tanks. Land must not be encumbered with another restrictive easement.
- ❑ **SIZE:** Parcels being offered as a single easement or in combination with others must total at least 100 contiguous acres.
- ❑ **SOILS:** Land must contain 50% Class I, II, and III soils or soils classified as 'Unique' by Natural Resource Conservation Service.
- ❑ **STEWARDSHIP:** Land must have a fully implemented Soil Conservation and Water Quality Plan and Nutrient Management Plan (as appropriate).

RANKING FORMULA
(Total Points Possible = 110)

Characteristics of Farm (maximum points = 50)

1. Soil quality _____ **points**

75+% Class I & II soils 30 points
50-75% Class I & II soils 20 points
or
LE Soil Productivity Index _____/2 = _____ (up to 30 points)

2. Size (Contiguous parcels in single application) _____ **points**

>= 400 acres 30 points
200-399 acres 20 points
100-199 acres 10 points

3. Economic productivity _____ **points**

Farm yields \$45,000/year or more in gross receipts 10 points

4. Capital Investment _____ **points**

Specialized use, intensive investment 10 points
Above average investment 5 points

Location Factors (maximum points = 40)

5. Zoning _____ points

Farm in agricultural zone with residential density of
one dwelling unit per twenty five acres (1:25) or lower 30 points

6. Road frontage _____ points

Total feet of public road frontage (up to 2500 feet) _____/100

7. Adjacency to protected land _____ points

Within ½ miles of permanently protected land 10 points

**8. Adjacency to development area boundary, water or sewer
line or service area, or to an interstate highway** _____ points

Immediately adjacent 20 points
Separated by one property 10 points

Discretionary Points (maximum points = 10) _____ points

Up to 10 points may be give to properties at the discretion of the Board to recognize qualities of the particular farm or its circumstances that are difficult to quantify. The Board will need to state its rationale for awarding such points. Examples include:

Specialty or unique farming operation
Imminent sale or generational transfer of farm
Historic structures present
Multi-generation/owner-operated farm
Key location relative to other applicant properties
Adjacency to critical environmental areas
Exceptional scenic value

TOTAL RANKING POINTS _____

APPENDIX II

PDR – Tax and Estate Planning Implications for Farmers

PURCHASE OF DEVELOPMENT RIGHTS

TAX AND ESTATE PLANNING IMPLICATIONS FOR FARMERS

The sale of development rights is a major decision for any farm family and should never be undertaken without careful consideration. In the process, four major planning issues should be considered: business viability, land planning, financial or tax issues and estate planning. The following section briefly highlights tax issues and estate planning.

Income (Capital Gains)

Proceeds from the sale of development rights are considered a long-term capital gain if the property has been held over 12 months and the proceeds exceed the cost basis of the property. In most cases, properties will have a low basis and some capital gains taxes will be owed. However, the IRS permits the taxpayer to allocate the entire basis towards the easement or development rights sale, which often will reduce the amount of taxable gain. Bear in mind that such an allocation will effectively reduce the basis in the property to zero.

Bargain Sale

In some cases, the farmland owner may decide to sell the development rights for less than its fair market value in order to supply the required local match. The IRS requirements in such a situation are a conservation easement that complies with Section 170(h) of the Internal Revenue Code and a "qualified appraisal" that meets IRS standards. The seller can then take a tax deduction for the amount of the "bargain" or gift. Other limits apply to allowable income tax deductions. Farmland owners should obtain their own tax and legal advice before proceeding.

Estate Planning

Sales of development rights or conservation easements also create estate-planning opportunities. They reduce the value of farmland for estate valuation purposes, and thus will reduce potential estate tax on the restricted farmland if IRS requirements are met. (The requirements for an estate tax deduction are similar, but not identical to those required for an income tax deduction.) Here too, farmland owners should consult with tax and legal advisers before taking action.

Proceeds from the sale of development rights have been used to purchase or trade for additional land, invest in the farm business, help facilitate the sale of the land to another farmer, establish a retirement fund, purchase life insurance or create an inheritance for non-farming children as part of a farm transfer and estate plan.

This is from the American Farmland Trust publication entitled "Action Guide: Agricultural and Farmland Protection for New York" 1999. Please see original publication for greater detail.

APPENDIX III

Massachusetts Agricultural Viability Program

Farm Viability Enhancement Program

APPLICATION

PLEASE TYPE OR PRINT IN BALLPOINT PEN

Date: _____

1. Municipality:	FOR OFFICE USE ONLY
County:	Date Received:
2. Applicant(s)	Rec'd. By:
Name:	
Address:	
Home Phone:	Other Phone:

3. Property Identification:

a. Location if different from above:

Address:
Phone:
Name of person in residence:

b. Owner of Record if different from above:

Name:
Address:
Phone:

c. Farm Name, Corporate or Business Name, if any. Explain.

4. Describe fully the agriculture carried out on the farm. Give acreage or quantities of the various crops grown, the number and kinds of livestock, forest products, specialty crops, greenhouse, etc.

5. Describe the land in the entire farm under this ownership and indicate total acreage and that to be included in the program. Include a map of the property on a United States Geological Survey (USGS) topographical map showing (a) the land area to be covered by the viability plan; and (b) the land to be covered by a possible agricultural use covenant if different than the land covered by the plan. Also include a USDA Natural Resources and Conservation Service map and farm plan, or its equivalent, showing the breakdown of various soil types and acreage possessing soil capability Classes I through IV.

LAND TYPE OR USAGE	Total Acreage	Acreage to be included in the program
A. Tillable Cropland		
B. Non-Tillable Cropland		
C. Nursery - Orchard		
D. Pasture		
E. Managed Woodland		
F. Non-Managed Woodland		
G. Ponds, Wetlands		
H. Land occupied by farm buildings		
I. Land occupied by commercial buildings or residences		
TOTAL:		
J. Land owned by applicant which is rented to others	Land Type Usage	Acreage
K. Land rented from others but used by applicant		

6. Employment provided by the farm operation:

a. Owner operator(s)		
b. Employees: Full-time	Part-time	Seasonal
c. Family help: Full-time	Part-time	Seasonal

7. Is your land under Farmland Assessment (Chapter 61A) or Forest Assessment (Chapter 61)?

☐ Yes

☐ No

☐ Yes

☐ No

8. Your Farm Viability Plan will include an environmental resource management assessment aimed at making recommendations concerning possible voluntary actions for improving the environmental viability of your farm. Please indicate which of the following issues apply to your farm operation:

☐ erosion and sediment control

☐ water management

☐ nutrient management

☐ facility waste water and runoff control

☐ pesticide management

Your Signature(s):

Date:

--

c. Describe the type and number of years of agricultural experience that the manager(s) of this farm have.

d. If the owner is not principally engaged in agricultural activities, a statement must be submitted by the owner regarding the short and long term plans for keeping the property in agricultural use.

Please provide a statement indicating if any family members have income from employment other than farm income identified above, a copy of the current deed(s) to all the parcels of the property described above and, if available, a survey plan delineating the property. **By signing below, you are authorizing the Department to conduct a field inspection of the land to be covered by your farm viability plan.**

Signature(s):

Date:

Return application to:

John Jaworski
Program Coordinator
48 Peabody Lane
Greenfield, MA 01301

COMMONWEALTH OF MASSACHUSETTS

NON-DEVELOPMENT COVENANT FOR A PERIOD OF ---- (--) YEARS

I. STATEMENT OF PURPOSE

By obtaining this Non-Development Covenant for a Period of --- (--) Years, it is the intent of the Commonwealth to protect and preserve agricultural lands, encourage sound soil management practices, preserve natural resources, and maintain land in active agricultural use through improving the agricultural economic viability of the Premises. No activity detrimental to the actual or potential agricultural use of the Premises, or detrimental to water conservation, soil conservation, or to good agricultural and/or forestry management practices or which is otherwise wasteful of the natural resources of the Commonwealth of Massachusetts shall therefore be permitted.

II. DEFINITIONS

When used throughout this entire document, the following words or phrases shall have the following meaning:

1. Abandoned: land that has not been actively utilized for agricultural uses for a period exceeding three years unless the non-activity is recommended in a current USDA/NRCS plan.

2. Agricultural Use: the raising of animals, including but not limited to, dairy cattle, beef cattle, poultry, sheep, swine, horses, ponies, mules, goats, bees and fur-bearing animals, for the purpose of selling such animals or a product derived from such animals in the regular course of business; or when primarily and directly used in a related manner which is incidental thereto and represents a customary and necessary use in raising such animals and preparing them or the products derived therefrom for market, as defined in M.G.L. c. 61A, §1, as amended, and also horticultural uses, including but not limited to, the raising of fruits, vegetables, berries, nuts and other foods for human consumption, feed for animals, tobacco, flowers, sod, trees, nursery, or

greenhouse products, and ornamental plants and shrubs for the purpose of selling such products in the regular course of business; or when primarily and directly used in raising forest products.

3. Permanent Structure: any structure that requires the grading of soil, or the excavation for footings or foundations.

4. Premises: approximately ----- acres of land located at ----- in the Municipality of -----, in ----- County, Massachusetts as more fully described in Exhibit A, attached hereto and incorporated by reference into this document.

5. Temporary Structure: a structure that does not have a permanent foundation, or does not substantially alter or otherwise affect the soil profile.

III. TERMS AND CONDITIONS

We, -----, of -----, ----- County, Massachusetts (the "Grantors"), for good and valuable consideration, grant to the Commonwealth of Massachusetts, acting through the Commissioner of Food and Agriculture (the "Commissioner"), with an address at 100 Cambridge Street, Boston, Massachusetts, its successors and assigns (the "Grantee"), a Non-Development Covenant for a Period of -- (-) Years (the "Covenant") on the Premises, in accordance with the following terms and conditions listed below.

A. RETAINED RIGHTS

Notwithstanding any provision of this instrument to the contrary, the Grantor(s) hereby reserves to and for themselves the customary rights and privileges of ownership not inconsistent with the statement of purpose herein, including but not limited to, the right to:

- (1) Privacy and to carry out regular agricultural practices.

- (2) The maintenance and use of existing trails and farm and wood roads on the Premises substantially in their present condition or as reasonably necessary for their continued use for agricultural uses or other uses as designated on a "farm viability plan" prepared by the Grantee.
- (3) The construction or placement of temporary structures for agricultural uses or other uses as designated on a "farm viability plan" prepared by the Grantee.

B. PROHIBITED USES

The Grantors covenant that the Premises will at all times be held, used and conveyed subject to, and not in violation of, the following restrictions:

- (1) No use shall be made of the Premises, and no activity thereon shall be permitted, which is inconsistent with the intent of this grant, as stated in the Statement of Purpose.
- (2) No non-agriculturally related temporary or permanent structure shall be constructed, placed or permitted to remain on the Premises, except those structures existing on the Premises at the time of the execution of this Restriction, or other uses as designated on a "farm viability plan" prepared by the Grantee or those structures permitted pursuant to Section C of this Restriction.
- (3) No refuse, trash, vehicle bodies or parts, rubbish, debris, junk, waste, radio-active or hazardous waste or other substance or material whatsoever shall be placed, stored, dumped or permitted to remain on the Premises, except as required for the use of the Premises for normal agricultural activities.

C. ACTIVITIES WHICH REQUIRE PRIOR WRITTEN APPROVAL

The following activities shall not be conducted without the prior written approval of the Grantee, and said approval shall be granted provided that such activities do not defeat or derogate

from the intent of this Covenant:

- (1) The construction or placing of one or more residential dwelling unit(s), including appurtenant improvements and amenities, including but not limited to an asphalt driveway, septic system, or any other underground sanitary system, water system, or other utility, for use by the Grantor, or a family member who is actively engaged in agricultural uses on the Premises.
- (2) The construction or placing of permanent structures for housing seasonal agricultural employees or other agriculturally related uses, including related retail sales unless such construction is designated on a "farm viability plan" prepared by the Grantee.
- (3) The excavation, dredging, depositing or removal from the Premises of loam, peat, gravel, soil, sand, rock or other mineral resources, or natural deposits in accordance with a USDA/NRCS Plan.
- (4) The subdivision, recording of a subdivision plan, partition, or any other division of the Premises, or any portion thereof, into two or more parcels, even in the event that the Premises is comprised of one or more deeded parcels at the date of this Restriction.

D. ENFORCEMENT OF THE TERMS AND CONDITIONS

(1) The Grantors grant to the Grantee, and its successors at law, the right to enter the Premises in a reasonable manner and at reasonable times, for the purposes of:

- (a) inspecting the Premises to determine compliance with this Covenant; and
- (b) enforcing this Covenant;

(2) In the event of a violation of the terms of this Restriction, the Grantee reserves the right to pursue any remedy available at law and equity, including injunctive relief.

(3) The rights hereby granted shall be in addition to, and not in limitation of, any other rights and remedies available to the Grantee for enforcement of this Restriction.

IV. AFFIRMATIVE COVENANT

The Grantors agree that the Premises shall remain in active agricultural use, and the land shall not be abandoned, except in accordance with a USDA/NRCS Farm Management Plan, approved by the conservation district for the locality in which the Premises is located.

V. AUTHORIZATION

The foregoing Covenant is authorized by Massachusetts General Laws, Chapter 20, Section 22 and otherwise by law, and is intended to ensure the protection and preservation of agricultural lands.

This Covenant shall be administered on behalf of the Grantee by the Commissioner and shall be enforced by the Grantee as in its sole discretion may decide. Nothing herein shall impose upon the Grantee any duty to maintain or require that the Premises be maintained in any particular state or condition, notwithstanding the Grantee's acceptance hereof.

Except as otherwise provided herein, this Covenant does not grant to the Grantee, the public, or any other person any right to enter upon the Premises

This Covenant is in gross, exists for a period of years and is not for the benefit of or appurtenant to any particular land and

shall not be assignable.

If any section or provision of the Covenant shall be held to be unenforceable by any court of competent jurisdiction, this Covenant shall be construed as though such section had not been included in it. If any section or provision of the Covenant shall be subject to two constructions, one of which would render such section or provision invalid, then such section or provision shall be given the construction that would render it valid. If any section or provision of this deed Covenant is ambiguous, it shall be interpreted in accordance with the policy and provisions expressed in the General Laws, Chapter 20, Section 22.

This instrument is not a deed. It does not purport to transfer a fee interest to the Grantee. No Massachusetts deed excise stamps are affixed hereto as none are required by General Laws 64D, Section 1, as amended.

WITNESS the execution hereof under seal this _____
day of _____, 19__.

COMMONWEALTH OF MASSACHUSETTS

_____, ss _____, 19__.
Then personally appeared the above-named _____
and _____
acknowledged the foregoing instrument to be their free act and deed before me.

My Commission Expires _____
Notary Public

APPROVAL OF THE COMMONWEALTH OF MASSACHUSETTS

The undersigned Commissioner of Food and Agriculture of the Commonwealth of Massachusetts hereby certifies that the foregoing Non-Development Covenant for a Period of -- (-) Years granted by ----- to the Commonwealth of Massachusetts with respect to parcels of land located in -----, Massachusetts described therein, has been approved pursuant to Massachusetts General Laws, Chapter 20, section 22.

Date: _____ COMMONWEALTH OF MASSACHUSETTS

By: _____ Commissioner, Department of
Food and Agriculture

COMMONWEALTH OF MASSACHUSETTS

, ss

19__.

Then personally appeared the above-named
and acknowledged the foregoing to be his free act and deed
before me.

My Commission Expires: _____ Notary Public

APPENDIX IV

Delaware's Strategic Mapping Criteria

Delaware Farmland Preservation Programs

Farmland Preservation

The preservation of your farmland is voluntary - it's up to you. The farmland preservation program has two major components - ag preservation districts and the purchase of development rights.

Ag Districts

An ag district is a voluntary agreement to use land only for agriculture for at least a ten year period. Land must meet certain minimum standards and go through a review and approval process. There is **no payment to the landowner** for creating the district.

However, there are several benefits to landowners in an ag district. The unimproved land in the district is exempt from real estate transfer, county, school and *ad valorem* taxes. There are significant protections against nuisance suits for land in the district. Landowners are permitted limited residential uses on the farm for family members and farm labor. Under hardship conditions owners are permitted to transfer limited acreage to third parties.

Purchase of Development Rights

In order to permanently preserve farmland, the Foundation purchases development rights from landowners and imposes a permanent easement on the land. Land **must first be in an ag district** before the owner can apply to sell the development rights. The sale of development rights is a three step process.

I. Selecting Farms

Since the requests to sell development rights outstrip the available funds, the Foundation must prioritize requests. The Foundation has developed a ranking system that "scores" farmland based on a

variety of factors like type of farm, soils and yields. The most important factor is the location of land on the Farmland Preservation Strategy Map. Once ranked, the highest scored farms are selected for appraisal. This insures that the Foundation preserves the best quality farms.

II. Appraising Farms

In order to set the market value of the development rights for each farm, the Foundation pays for an appraisal, with two parts. The first is the full, fair market value of the farm. This standard approach is based on sales data for comparable farms in the area. The second part sets the "agriculture only" value of the farm based on agricultural rent values and current rates of return on investments. The difference between fair market value and agriculture only value is the **appraised value of the development rights**.

III. Final Price for Farms

The Foundation delivers final appraisals to farmland owners. An owner can choose to have a second appraisal completed at his own expense. Once there is an agreement on the appraised value, the owner then makes an offer to the Foundation. Using the funds available, the Foundation selects from those offers based on the **percentage discount by the owner below the appraised value**. In effect, owners compete against each other to determine which farms are preserved. This approach has allowed the permanent preservation of about more farmland than would have been possible otherwise.

The Foundation pays for a complete survey of the farm and goes to settlement. Owners pay no taxes, fees or charges at settlement. Owners can accept lump sum payments or take payment over time or use proceeds for "like kind" exchanges.

APPENDIX: G STRATEGY MAP NUMERICAL FORMULA

The Agricultural Lands Strategy Map represents a modified Land Evaluation and Site Assessment (LESA) System utilized by the Department of Agriculture. The modified system includes factors used in the original LESA but are altered to suit an area-wide analysis as opposed to a site-specific analysis.

LAYER

SOURCE

Soils (weight = 9)

SCS Natural Soils Groups

A=9 = prime
B=6 = statewide importance
C=3 = marginal
D=0 = other (not important)

Sewer (weight = 8)

County Engineering

A=9 = no sewer
B=6 = proposed/planned sewer
C=0 = area has sewer

Land Use/Land Cover (weight = 5)

¹⁹⁹⁷
~~1992~~ Land Use/Land Cover Map

A=9 = cropland
B=7 = forest
C=0 = other

% of Area in Agriculture (weight = 4)

SCS Soil map grids were used. Then LU/LC crop-land % within each map calculated by computer.

A=9 = high
B=6 = medium
C=3 = low
D=0 = very low

Agricultural Investment (weight = 4)

County ASCS Maps

A=9 = high
B=6 = medium
C=3 = low
D=0 = none

barns, storage facilities
grain elevators, feed mills
livestock shelters, poultry houses, slaughter facilities
deep water wells, irrigation systems milking & loafing facilities, equipment dealers, chemical & fertilizer suppliers, canneries & freezing processing facilities, tax ditches;

Natural Areas (weight = 3)

DNREC Natural Areas

Map

A=9 = high

Federal Lands - National Wildlife Refuge

B=6 = medium
 C=3 = low
 D=0 = none

Army Core of Engineers
 National Guard Lands
 State Lands - Foundation Easements -
 State Parks
 Fish & Wildlife
 Management Areas,
 State Forests, State
 Nature Preserves, State
 + Ponds, Dept. of State
 (Museums/Cultural
 Resources) DNREC
 (donated) Local Lands -
 County Parks, Municipal
 Parks
 Private Lands: Conservation
 Organizations include:
 Delaware Wild Lands,
 Inc., Nature Conservancy
 Delaware Nature Society
 preserved lands were
 given a 4:1 weight over
 "proposed" lands for
 protection and privately
 preserved lands.

Regimes:

The maximum possible scoring range in Delaware is 0 - 297 -

Each county may have a different range based on the land characteristics of each layer. For instance, if Kent County's top score was 280 and the lowest was 40, then the range would be from 40 - 280.

An eight-regime model is used in each county meaning that Kent County may have 30 points in each regime. For each county;

regimes 1-4 = dk. yellow, 5 = lt. yellow, 6 = blue, 7 = lt. green, 8 = dk. green

Yellow areas are a lower priority for farmland preservation.

Blue areas are a medium priority

Green areas are a higher priority for farmland preservation, with dark green being the highest.

APPENDIX V

Carroll County, Maryland Critical Farms Program

Carroll County Critical Farms Program

Carroll County has established a program called the Critical Farms Program that guarantees a minimum easement value for farms that are being transferred. Applicants must be the contract purchaser or recent purchaser of a farm that qualifies for the State Program. Based on an appraisal of the value of an easement, the County offers the new owner a payment of 75% of easement value for an option for the County to acquire the easement at the end of a five year period.

When the new owners receive the County money for the option, they are obligated to put the farm in a Maryland Agricultural Land Preservation (MALPF) District and offer to sell an easement at each opportunity during a five year period by submitting a bid that is at least equal to the amount paid by the County. If MALPF acquires the easement, the County fund is repaid the exact amount that was provided up-front (no interest payment is required). At the end of the five year period, if the easement has not been acquired by MALPF, the farm owner has two options: repaying the County (with interest) for termination of the option agreement; or, accepting the easement as permanent with no additional payment from the County.

Carroll County's first priority for funding is the State/County Matching Funds Program of MALPF. Funds that the County appropriates in excess of the requirement of the MALPF Matching Program are available to fund the Critical Farms Program. Over a 16 year period, the County has appropriated \$8.4 million for Agricultural Land Preservation. Approximately \$3.7 million has come from the Agricultural Transfer Tax, and approximately \$4.7 million has come from the County's General Fund.

**APPLICATION
CARROLL COUNTY CRITICAL FARMS PROGRAM**

Applicant: _____

Owner: _____ *or Contract Purchaser* _____

Mailing Address: _____

Location of Property: _____

Tax Map: _____ *Block:* _____ *Parcel:* _____ *Deed Reference:* _____

Percent of Farm in the Agricultural Zoning District: _____

ELEMENTS OF THE PROGRAM

1. The farm must meet the requirements of the Maryland Agricultural Land Preservation Foundation for District approval and Easement sale and must receive a favorable recommendation for District approval from the Carroll County Agricultural Preservation Advisory Board.
2. No less than 75% of the acreage of the farm must be within the area of the Carroll County Agricultural Zoning District.
3. Farms will receive a score based on the point system in Ordinance No. 93. The applicant will receive a copy of the scoring information and will be asked to concur with the point score.
4. Applicants will be informed of their score, the number of current applicants, and their ranking among the other applicants.
5. The County Commissioners may grant preliminary approval of applications but they are not required to do so. In granting preliminary approval, preference must always be given to the farms with the highest point score. Decisions to grant preliminary approval will be based on the availability of County funds.

6. For farms that have received preliminary approval, the County will have 2 appraisals conducted to determine the value of the development rights easement. Applicants may also submit an appraisal, but are not required to do so. Applicants are reminded that an appraisal submitted by them must provide both the fair market value and the agricultural value of the land as defined in ordinance 93.
7. The applicant and the County must agree on an easement value based on the values provided by the appraisals.
8. The Commissioners will be asked to grant final approval of an option to purchase an easement on the farm at a price of 75% of the agreed upon easement value. The Commissioners are not obligated to grant final approval.
9. If the applicant is the contract purchaser of the farm, the payment and settlement for the County option can occur immediately following the settlement for the property.
10. The applicant should keep all mortgage holders and potential future mortgage holders fully informed regarding the terms of the option for easement sale and the terms of the deed of easement, and the values involved. Mortgage holders will be required to be a party to the option agreement and the deed of easement.
11. The County payment for the option to purchase an easement will obligate the applicant to make all reasonable efforts to have the farm approved by the Maryland Agricultural Land Preservation Foundation as an Agricultural Preservation District. For a period of 5 years the applicant must actively pursue the sale of an easement to the Foundation at a price no lower than the County option payment.
12. If the applicant successfully sells an easement to the State Foundation, the full amount of the County option must be repaid when easement settlement with the State occurs.
13. If the applicant is unable to sell an easement to the State Foundation within 5 years from the recordation of the option agreement the applicant will have a limited time (60 days) to cancel the option agreement by repaying to the County the full amount of the price of the option, plus interest for the entire period of the option, at the legal rate in effect at the time of cancellation.
14. If the applicant does not cancel the option within the 60-day period, the County will exercise the option contained in the agreement and purchase the development rights easement from the applicant with no additional payment being made by the County.
15. The applicant will be obligated to provide a survey description of the property if the survey description contained in the property deed is not accurate enough to obtain the title insurance required by the State for easement acquisition.
16. The deed of easement will be the standard deed of easement used by the Maryland Agricultural Land Preservation Foundation and the easement may be donated by the County to the Maryland Agricultural Land Preservation Foundation.

APPLICANT SIGNATURES

I (we) have received a copy of Carroll County Ordinance No. 93, the Maryland Agricultural Land Preservation Foundation District Agreement and a sample Deed of Easement. I (we) have read the elements of the program outlined above and hereby submit the above described property for consideration under the provisions of Ordinance 93.

Landowner or Contract Purchaser Signature

Date

Landowner or Contract Purchaser Signature

Date

Landowner or Contract Purchaser Signature

Date

MORTGAGE OR LIENS

LANDOWNER APPLICANT: Is there a mortgage or other lien on this property? Yes No .
If yes, please secure signatures of such holders.

I (we) acknowledge that the above landowner has informed me (us) of their intention to sell to the Commissioners of Carroll County on option to purchase a development rights easement. I (we) agree to join with the landowner in said option agreement and subsequent deed of easement providing that I (we) approve the amount of the payment offered by the County for the option.

Name of Individual or Company

Name of Individual or Company

Street Address

Street Address

City State Zip Code

City State Zip Code

Signature Date

Signature Date

OPTION TO PURCHASE AGRICULTURAL LAND PRESERVATION EASEMENT

WHEREAS, COUNTY COMMISSIONERS OF CARROLL COUNTY, MARYLAND, adopted the Critical Farms Program, Ordinance No. 93, on April 21, 1992, to assist in the preservation of local farms; and

WHEREAS, this Ordinance provides that an applicant for this program may sell the County Commissioners of Carroll County an option to Purchase an Agricultural land preservation easement, prohibiting any development of the property, and thereafter seek to convey this easement to the State Agricultural Land Preservation Foundation, pursuant to the provisions of the Annotated Code of Maryland, Agriculture Article, Section 2-501 as amended, et seq.; and

WHEREAS, this Option is to be purchased from the applicant for seventy-five percent (75%) of the value of the development rights easement. The Option is intended to remain in effect for a term of five (5) years. If the State Foundation purchases the easement this Option will terminate, and the amount received by the applicant as payment for the Option is to be returned to the County Commissioners of Carroll County. If the State Foundation does not purchase the easement, the County will exercise this Option, and acquire the easement, for no additional consideration; and

WHEREAS, the following Option is being purchased pursuant to this program.

NOW, THEREFORE, THIS OPTION TO PURCHASE, made this _____ day of _____, 1996, by and between XXXX (hereinafter referred to as "Sellers"), and THE COUNTY COMMISSIONERS OF CARROLL COUNTY, MARYLAND, a body corporate and politic of the State of Maryland (hereinafter referred to as "Buyer").

WITNESSETH

In consideration of the payment of the sum of YYYY from Buyer to Sellers and other good and valuable consideration, all as hereinafter set forth, the receipt and adequacy of which are hereby acknowledged, Sellers hereby grant to Buyer the right and option to purchase an agricultural land preservation easement in, on, and over that tract or parcel of land, situate on ZZZZ, Carroll County, Maryland, in the AAAA () Election District of Carroll County, Maryland, containing BBBB acres of land, more or less, being described as follows:

The total acreage intended to be encumbered hereby being BBBB acres of land, more or less.

BEING

This Option to Purchase is subject to the following terms, covenants, conditions, limitations, restrictions and agreements:

1. This Option shall have a term of no more than five (5) years, commencing with the date of execution hereof by Buyer, which term may be extended by written mutual agreement of the parties. The purchase price of the Option shall constitute the full price of the agricultural land preservation easement, and no further payments shall be made upon execution of this Option by the Buyer.

2. Sellers shall take all steps to establish an agricultural land preservation district on the above-described property, and to subsequently convey the easement described herein to the Maryland Agricultural Land Preservation Foundation ("Foundation") at every opportunity during the term of this Option. Such conveyance will automatically terminate this Option, and any sums paid to Sellers by the Foundation, up to the amount paid to Sellers hereunder, shall be returned to Buyer. No conveyance of the easement to the Foundation shall be recorded prior to such repayment.

3. Should the Foundation fail to purchase this easement within the term of this Option, Sellers may rescind this Option by repaying to Buyer the full price of said Option plus interest for the entire term of the Option, at the legal rate at the time of rescission. Sellers must notify Buyer of its intent to rescind no less than thirty (30) days prior to termination of this Option, and must make full payment of any such sums within thirty (30) days after the termination. Failure of the Sellers to so rescind will automatically authorize the Buyer to exercise the option. Failure by the Buyer to timely exercise the option will not terminate or in any other way affect the right of the Buyer to exercise this option subsequent to its expiration.

4. Buyer may exercise this Option by sending written notice to Sellers at CCCC, by first-class mail upon the expiration of the term of this Option. Said written notice shall be deemed delivered two (2) days after it is posted in the United States mail system if mail is the chosen form of delivery. Exercise of the Option and the recording of a notice of exercise shall automatically convert the Option into a Deed of the Agricultural Land Preservation Easement with no further action required by either party.

5. During the term of this option, if exercised, in perpetuity thereafter, the Sellers covenant for and on behalf of itself, and its successors and assigns, to do and refrain from doing upon the above described land all and any of the various acts hereinafter set forth, it being the intention of the parties that the said land shall be preserved solely for agricultural use in accordance with the provisions of Agriculture Article, Title 2, Subtitle 5, Md. Ann. Code, 1985, as amended, and that the covenants, conditions, limitations and restrictions hereinafter set

forth, are intended to limit the use of the above described land and are to be deemed and construed as real covenants running with the land.

COVENANTS, CONDITIONS, LIMITATIONS, AND RESTRICTIONS

Subject to the reservations hereinafter contained, the Sellers covenant, grant, and relinquish the following rights:

A. (i) The right to use the above described land for industrial, commercial, or residential use or purpose; the Sellers reserve, as a personal covenant only and one not intended to run with the land, the right to convey one acre or less upon written application to the Carroll County Agricultural Preservation Advisory Board, to the seller or to each of the children of the seller for the purpose of constructing a dwelling for themselves or those children's personal use; however, the Sellers may not convey more than one acre or less, at a maximum density of not more than one acre for each twenty (20) acres or portion thereof, not to exceed ten (10) lots of one acre or less, on the land herein described; the Sellers shall pay the Buyer for the release of the easement or for the benefit of conveying, free of the easement restrictions at the price per acre that the Buyer paid the Sellers for the grant of the easement; provided, however, the right to construct, subject to the approval of the Carroll County Agricultural Preservation Advisory Board, houses for tenants fully engaged in the operation of the farm provided such construction does not exceed one tenant house for each one hundred (100) acres. The land on which a tenant house is constructed may not be subdivided or conveyed to any persons. In addition, the tenant house may not be conveyed separately from the original parcel. The Sellers shall notify the Buyer if the land is subdivided to permit the Buyer to determine whether such subdivision violates any of the covenants, conditions, limitations or restrictions contained herein;

(ii.) The right to subdivide the above described land for any purpose (to include any off conveyance to which the land subject to the easement may be otherwise entitled) except upon written approval of the Carroll County Agricultural Preservation Advisory Board;

(iii.) Before any conveyance is made pursuant to Paragraph (A)(i) above, the owners shall agree with the Carroll County Agricultural Preservation Advisory Board not to subdivide any land conveyed. This agreement shall be recorded among the land records where the land is located and shall bind all future owners; and

(iv.) If while the above described land was in an agricultural preservation district, the Buyer released free of the district's restrictions for a person owning that land, 1 acre of less for the purpose of constructing a dwelling house for the use of that Sellers' child, the Buyer may not release free of easement restrictions for the Sellers, an additional lot for the same purpose; for each lot the Sellers had excluded from the district's restrictions for this purpose, the number of lots that the Sellers otherwise would be entitled to have released under paragraph (a) (i) is reduced by one.

(v.) On request to the Carroll County Agricultural Preservation Advisory Board, an owner may exclude from the easement restrictions one acre per each single dwelling, which existed at the time of the sale of the easement, by a land survey and recordation provided at the expense of the owner. However, before any exclusion is granted, an owner shall agree with the Carroll County Agricultural Preservation Advisory Board not to subdivide each acre excluded. This agreement shall be recorded among the Land Records where the land is located and shall bind all future owners.

B. The right to erect, display, place or maintain signs, billboards, or outdoor advertising displays on the land herein described; provided, however, the Sellers reserve the right to erect signs not exceeding four feet (4') by four feet (4') for each of the following purposes:

(i.) To state the name of the property and the name and address of the occupant;

(ii.) To advertise any home or ancillary occupation consistent with the purposes of this easement subject to the approval of the Buyer; and

(iii.) To advertise the property's sale or rental.

C. The right to dump ashes, sawdust, bark trash, rubbish or any other material; provided, however, the Sellers reserve the right to dump any material which is for regular agricultural use.

D. The right to transfer development rights from the above described tracts(s) to an other area, or to another person, or to a political subdivision.

The Sellers reserve the right to use the above described land for any farm use, and to carry on all normal farming practices, including the operation at any time of any machinery used in farm

production or the primary processing of any agricultural products; the right to conduct upon the said land any agricultural operation which is in accordance with good husbandry practices and which does not cause bodily injury or directly endanger human health, including any operation directly relating to the processing, storage, or sale of farm, agricultural or woodland products produced on the said above described land; and all other rights and privileges not hereby relinquished, including their right of privacy.

And the parties, for themselves, their successors and assigns, further covenant and agree as follows:

A. The Sellers shall manage the above described land in accordance with sound agricultural soil and water conservation practices so as to promote the agricultural capability of the land; and shall manage any woodland in accordance with sound forestry practices; however, the Sellers reserve the right to selectively cut or clear from time-to-time trees which will not alter the Agricultural character of the land or diminish its productive capability.

B. The Sellers shall implement all soil conservation and water quality practices that are contained within a soil conservation plan approved by the local soil conservation district, made or revised within the last ten (10) years of the date of the application to sell an easement, which lists all soil conservation and water quality problem areas on the land. The plan shall be implemented according to the schedule of implementation contained within the plan which exists at the time of easement settlement. Revisions to the schedule of implementation may be made as approved by the Board of Supervisors of the local soil conservation district, however, the plan shall be fully implemented within ten (10) years of the easement settlement date. Exceptions may be considered by the Buyer on a case-by-case basis.

C. The Sellers shall implement a forest management plan demonstrating proper forest management techniques if 50% or more of the acreage contained in the property consists of woodland.

D. The Buyer, or its authorized representative, shall have the right to enter on the above described land from time-to-time for the sole purposes of inspection and enforcement of the easement, covenants, conditions, limitations, and restrictions herein contained; provided, however, that the Buyer shall have no right to inspect the interior of any structures on the above described land.

E. That if the easement or any covenant, condition, limitation or restrictions herein contained is violated or breached, the Buyer may, after due notice to the Sellers, their successors or assigns, institute an action in equity to enjoin, by ex parte, temporary or permanent injunction, such violation or breach; to require the restoration of the above described land to its condition prior to such violation or breach; to recover damages; and to take such other legal action as may be necessary to insure compliance with the easement and the covenants, conditions, limitations and restrictions herein contained.

F. If the Sellers have any doubt concerning the easement, covenants, conditions, limitations or restrictions herein contained with respect to any particular use of the said land, it may submit a written request to the Carroll County Agricultural Preservation Advisory Board for consideration of such use.

G. That this easement does not grant the public any right of access or any right of use of the above described land.

H. That nothing herein contained shall relieve the Sellers, their heirs, personal representatives, successors or assigns of the obligation to pay real estate taxes.

I. That this easement shall be in perpetuity and may be released only by the Buyer as provided by Agriculture Article, Section 2-514, Md. Ann. Code. 1985 and as amended.

J. The Sellers further covenant that they have not done any act, matter or thing whatsoever, to encumber the property hereby conveyed; that they will warrant specially the property interest hereby conveyed; and that they will execute such further assurance of the same as may be required.

6. Buyer shall not be liable for any broker's commissions or finder's fees claimed in connection with the sale of the easement.

7. Sellers warrant that there has been no environmental damage on the property from any past operations and past storage of any hazardous substances or wastes.

8. This Agreement contains the final and entire agreement between the parties hereto, and neither they nor their agents shall be bound by any terms, conditions, or representations not herein

written.

9. Time shall be of the essence of this Agreement.

10. The parties hereto bind themselves, their heirs, personal representatives, successors and assigns, for the faithful performance of this Option. Nothing herein shall be construed to prohibit or limit the ability of Sellers to convey all or part of the above-described property to a third party.

AS WITNESS the hands and seals of the parties hereto.

_____(SEAL)
XXXX

_____(SEAL)
XXXX

Date:

Sellers

ATTEST:

THE COUNTY COMMISSIONERS OF
CARROLL COUNTY, MARYLAND,
a body corporate and politic
of the State of Maryland

Shawn D. Reese, Clerk

_____(SEAL)
Richard T. Yates, President

_____(SEAL)
W. Benjamin Brown
Vice-President

_____(SEAL)
Donald I. Dell, Secretary

Buyer

Date:

Approved for legal sufficiency:

Isaac Menasche
Senior Assistant County Attorney

STATE OF MARYLAND, COUNTY OF _____, to wit:

I HEREBY CERTIFY that on this _____ day of _____, 1996, before me, the subscriber, a Notary Public in and for the State and County aforesaid, personally appeared **XXXX**, known to me (or satisfactorily proven) to be the person whose name is subscribed to the within instrument and acknowledged that he executed the same for the purposes therein contained.

Witness my hand and Notarial Seal.

Notary Public
My Commission expires _____

STATE OF MARYLAND, COUNTY OF _____, to wit:

I HEREBY CERTIFY that on this _____ day of _____, 1996, before me, the subscriber, a Notary Public in and for the State and County aforesaid, personally appeared **RICHARD T. YATES, W. BENJAMIN BROWN and DONALD I. DELL**, who acknowledged themselves to be the President, Vice-President, and Secretary, respectively, of **THE COUNTY COMMISSIONERS OF CARROLL COUNTY, MARYLAND**, a body corporate and politic of the State of Maryland, and that they, as such President, Vice-President, and Secretary, respectively, being authorized so to do, executed the foregoing instrument for the purposes therein contained, by signing the name of the body corporate and politic by themselves as President, Vice-President, and Secretary, respectively.

Witness my hand and Notarial Seal.

Notary Public
My Commission expires _____

THIS IS TO CERTIFY that the within instrument has been prepared by or under the supervision of the undersigned Maryland attorney, or by a party to this instrument.

Isaac Menasche
Assistant County Attorney

APPENDIX VI

Farmland Mitigation

Subject: FIC - Technical Assistance - Appendix

Date: Wed, 14 Jul 1999 16:36:19 -0400

From: "Jen Dempsey" <jdempsey@farmland.org>

Organization: American Farmland Trust

To: "Donna Mennitto" <dmennitto@farmland.org>

Donna,

I decided to email the Davis ordinance instead.

<http://farm.fic.niu.edu/fic-ta/fptool-ca.html>

*Ag. only zoning.
Applicant for rezoning
must protect land w/
easement (ref. in line)
equal or greater value*

APPENDIX A: EXCERPTS FROM CITY OF DAVIS, CALIFORNIA ORDINANCE 1823, ESTABLISHING A FARMLAND MITIGATION PROGRAM

Article III. Farmland Preservation

Section 30-200. Purpose and Findings.

(a) The purpose of this chapter and this article is to implement the agricultural land conservation policies contained in the Davis general plan with a program designed to permanently protect agricultural land located within the Davis planning area for agricultural uses.

(b) The City of Davis City Council finds this chapter and this article are necessary for the following reasons: California is losing farmland at a rapid rate; Yolo and Solano county farmland is of exceptional productive quality; loss of agricultural land is consistently a significant impact under CEQA in development projects; the Davis general plan has policies to preserve farmland; the City of Davis is surrounded by farmland; the Yolo and Solano county general plans clearly include policies to preserve farmland; the continuation of agricultural operations preserves the landscape and environmental resources; loss of farmland to development is irreparable and agriculture is an important component of the city's economy; and losing agricultural land will have a cumulatively negative impact on the economy of the City and the counties of Yolo and Solano.

(c) It is the policy of the City of Davis to work cooperatively with Yolo and Solano Counties to preserve agricultural land within the Davis planning area beyond that deemed necessary for development. It is further the policy of the City of Davis to protect and conserve agricultural land, especially in areas presently farmed or having Class 1,2,3 or 4 soils.

(d) The City of Davis City Council finds that some urban uses when contiguous to farmland can affect how an agricultural use can be operated which can lead to the conversion of agricultural land to urban use.

(e) The City Council further finds that by requiring conservation easements for land being converted from an agricultural use and by requiring a 150 foot buffer, the City shall be helping to ensure prime farmland remains an agricultural use.

Section 30-210. Definitions.

(a) Advisory committee. The City of Davis Planning Commission shall serve as the advisory committee.

(b) Agricultural land or farmland. Those land areas of the county and/or city specifically classed and zoned as Agricultural Preserve (A-P), Agricultural Exclusive (A-E), or Agricultural General (A-1), as those zones are defined in the Yolo County Zoning Ordinances; those land areas classed and zoned Exclusive Agriculture (A-40), as defined in the Solano County Zoning Ordinance; and those land areas of the City of Davis specifically classed and zoned as Agricultural (A), Agricultural Planned Development or Urban Reserve where the soil of the land contains Class 1, 2, 3 or 4 soils, as defined by the Soil Conservation Service.

(c) Agricultural mitigation land. Agricultural land encumbered by a farmland deed restriction, a farmland conservation easement or such other farmland conservation mechanism acceptable to the City.

(d) Farmland conservation easement. The granting of an easement over agricultural land for the purpose of restricting its use to agricultural land. The interest granted pursuant to a farmland conservation easement is an interest in land which is less than fee simple.

(e) Qualifying entity. A nonprofit public benefit 501(c)(3) corporation operating in Yolo County or Solano County for the purpose of conserving and protecting land in its natural, rural or agricultural condition. The following entities are qualifying entities: Yolo Land Conservation Trust and Solano Farm and Open Space Trust. Other entities may be approved by the City Council from time to time.

Section 30-220. Agricultural Land Mitigation Requirements.

(a) Beginning on November 1, 1995, the City of Davis shall require agricultural mitigation by applicants for zoning changes or any other discretionary entitlement which will change the use of agricultural land to any non-agricultural zone or use.

(b) Agricultural mitigation shall be satisfied by:

(1) Granting a farmland conservation easement, a farmland deed restriction or other farmland conservation mechanism to or for the benefit of the City of Davis and/or a qualifying entity approved by the City of Davis. Mitigation shall only be required for that portion of the land which no longer will be designated agricultural land, including any portion of the land used for park and recreation purposes. One time as many acres of agricultural land shall be protected as was changed to a non-agricultural use in order to mitigate the loss of agricultural land; or

(2) In lieu of conserving land as provided above, agricultural mitigation may be satisfied by the payment of a fee based upon a one to one replacement for a farmland conservation easement or farmland deed restriction established by the City Council by resolution or through an enforceable agreement with the developer. The in lieu fee option must be approved by the City Council. The fee shall be equal to or greater than the value of a previous farmland conservation transaction in the planning area plus the estimated cost of legal appraisal and other costs, including staff time, to acquire property for agricultural mitigation. The in lieu fee, paid to the City, shall be used for farmland mitigation purposes, with priority given to lands with prime agricultural soils and habitat value.

(c) The land included within the 100 foot agricultural buffer required by section 30-50(c) shall not be included in the calculation for the purposes of determining the amount of land that is required for mitigation.

(d) It is the intent of this program to work in a coordinated fashion with the habitat conservation

objectives of the Yolo County Habitat Management Program, and, therefore, farmland conservation easement areas may overlap partially or completely with habitat easement areas approved by the State Department of Fish and Game and/or the Yolo County Habitat Management Program. Up to 20% of the farmland conservation easement area may be enhanced for wildlife habitat purposes as per the requirements of the State Department of Fish and Game and/or Yolo County Habitat Management Program; appropriate maintenance, processing or other fees may be required by the habitat program in addition to the requirements set forth herein.

Section 30-230. Comparable Soils and Water Supply.

(a) The agricultural mitigation land shall be comparable in soil quality with the agricultural land whose use is being changed to non-agricultural use.

(b) The agricultural mitigation land shall have adequate water supply to support the historic agricultural use on the land to be converted to nonagricultural use and the water supply on the agricultural mitigation land shall be protected in the farmland conservation easement, the farmland deed restriction or other document evidencing the agricultural mitigation.

Section 30-240. Eligible Lands.

(a) The agricultural mitigation land shall be located within the Davis planning area as shown in the Davis General Plan. The criteria for preferred locations or zones for agricultural mitigation land shall be determined by the Davis City Council after receiving input from the advisory committee, Yolo and Solano counties, Woodland, Dixon, the Davis Open Space Committee, the Natural Resources Commission and Yolo and Solano Farm Bureaus. In making their determination, the following factors shall be considered:

1. The zones shall be compatible with the Davis general plan and the general plans of Yolo and Solano counties.
2. The zones shall include agricultural land similar to the acreage, soil capability and water use sought to be changed to non-agricultural use.
3. The zones shall include comparable soil types to that most likely to be lost due to proposed development.
4. The property is not subject to any easements or physical conditions that would legally or practicably preclude modification of the property's land use to a non-agricultural use.

(b) The advisory committee shall recommend to the City Council acceptance of agricultural mitigation land of twenty (20) acres or more by a qualifying entity and/or the City, except that it may consider accepting smaller parcels if the entire mitigation required for a project is less, or when the agricultural mitigation land is adjacent to larger parcels of agricultural mitigation land already protected. Contiguous parcels shall be preferred.

(c) Land previously encumbered by a conservation easement of any nature or kind is not eligible to qualify as agricultural mitigation land, unless the conservation easement meets the requirements of Section 30-220(f).

Section 30-250. Requirements of Instruments; Duration.

(a) To qualify as an instrument encumbering agricultural mitigation land, all owners of the agricultural mitigation land shall execute the instrument.

(b) The instrument shall be in recordable form and contain an accurate legal description setting forth the description of the agricultural mitigation land.

(c) The instrument shall prohibit any activity which substantially impairs or diminishes the agricultural productivity of the land, as determined by the advisory committee.

(d) The instrument shall protect the existing water rights and retain them with the agricultural mitigation land.

(e) The applicant shall pay an agricultural mitigation fee equal to cover the costs of administering, monitoring and enforcing the instrument in an amount determined by City Council.

(f) The City shall be named a beneficiary under any instrument conveying the interest in the agricultural mitigation land to a qualifying entity.

(g) Interests in agricultural mitigation land shall be held in trust by a qualifying entity and/or the City in perpetuity. Except as provided in subsection (h) of this Section, the qualifying entity or the City shall not sell, lease, or convey any interest in agricultural mitigation land which it shall acquire.

(h) If judicial proceedings find that the public interests described in Section 30-200 of this chapter can no longer reasonably be fulfilled as to an interest acquired, the interest in the agricultural mitigation land may be extinguished through sale and the proceeds shall be used to acquire interests in other agricultural mitigation land in Yolo and Solano Counties, as approved by the City and provided in this Chapter.

(i) If any qualifying entity owning an interest in agricultural mitigation land ceases to exist, the duty to hold, administer, monitor and enforce the interest shall pass to the City of Davis.

Section 30-260. City of Davis Farmland Conservation Program Advisory Committee.

(a) The Davis Planning Commission shall serve as the Davis Farmland Conservation Advisory Committee.

(b) It shall be the duty and responsibility of the Planning Commission to exercise the following powers:

1. To adopt rules of procedure and bylaws governing the operation of the advisory committee and the conduct of its meetings.
2. To recommend the areas where mitigation zones would be preferred in the Davis planning area.
3. To promote conservation of agricultural land in Yolo and Solano counties by offering information and assistance to landowners and others.
4. To recommend tentative approval of mitigation proposals to City Council.
5. To certify that the agricultural mitigation land meets the requirements of this chapter.
6. Any denial from the advisory committee may be appealed to City Council.

(c) The Natural Resources Commission shall monitor all lands and easements acquired under this Chapter and shall review and monitor the implementation of all management and maintenance plans for these lands and easement areas. The Natural Resources Commission shall provide advice to the Planning Commission on the establishment of criteria for the location of agricultural mitigation lands.

(d) All actions of the Planning Commission and the Natural Resources Commission shall be subject to the approval of the Davis City Council.

Section 30-270. Annual Report.

Annually, beginning one year after the adoption of this Chapter, the City Planning Director shall provide to the Advisory Committee an annual report delineating the activities undertaken pursuant to the requirements of this Chapter and an assessment of these activities. The report shall list and report on the status of all lands and easements acquired under this Chapter. The Planning Director shall also report the to Natural Resources Commission.

Practice Application and who do not harvest or restore the site according to King County standards. For cases where land under moratorium is sold, King County should develop means to ensure that buyers are alerted to the moratorium.

Landowners choosing to convert their land to non-forest uses also must state their intent on the Forest Practice Application and, as provided in the Forest Practices Act, must conduct their forest practices according to applicable local government regulations. In King County, conversions require a Clearing and Grading Permit conditioned in accordance with the King County Sensitive Areas Ordinance, which contains standards more protective of the environment than those prescribed by the Forest Practices Act.

The Forest Practices Act also authorizes the DNR, in consultation with local government and tribes, to designate "Areas Likely to Convert", commonly referred to as "ALTCs." An ALTC designation means that, unless the landowner demonstrates otherwise, conversion to non-forest use is assumed to occur and regulated accordingly. Because Rural forest lands experience conversion as well as urban-designated lands, an ALTC is not the equivalent of the Urban Growth Area.

RL-210 King County should work with all affected parties and the Washington Department of Natural Resources to designate appropriate Areas Likely to Convert (ALTCs) under a signed Memorandum of Agreement to be signed by March 1, 1995. King County's ALTC should include the Urban Growth Area, and those Rural areas not considered for a Rural Forest District designation.

III. Agricultural Lands

Approximately 42,000 acres in King County remain in agriculture. In 1992, farmers in King County produced over \$84 million in agricultural sales that contributed to a diverse regional economy and provided fresh local foods. Commercial agricultural production, however, has declined by 30 percent in gross sales since 1978. The average farm and parcel size has also decreased, thus reducing the potential for many types of commercial operations. Fortunately, many of the smaller parcels still are undeveloped. If residences were built on all of the undeveloped parcels, King County's ability to sustain commercial agriculture would be significantly affected.

King County residents have supported efforts to preserve good farmland and active farms for the value of local crops, dairy and livestock and for scenic and historic values. In 1979, voters approved a measure to buy farmland development rights, indicating a significant public commitment to preserve farmlands. This program preserved 12,600 acres of farmland by purchasing the development rights. During the 1980's, King County established Agricultural Production Districts with large lot zoning and specifying agriculture as the preferred use in these areas. Despite the conservation of farmland resulting from these actions, the number of acres in agricultural production has declined significantly in the last ten years--by almost 12,000 acres, or 22 percent. To meet the GMA requirement to maintain and enhance agriculture, a variety of methods and programs continue to be necessary.

Four main steps are necessary to maintain and enhance commercial agriculture. The first step is to protect enough acreage of productive farmland by designation and zoning and to limit development to

uses that are necessary to support commercial agriculture. Second, it is necessary to prevent or minimize land use conflicts between farming operations and adjacent land uses. Third, the necessary infrastructure (markets, available water, affordable housing, farm supply stores, technical services, tax incentives) that supports commercial agriculture needs to be assured. Fourth, farming practices that conserve soils and protect water quality, fisheries and wildlife, but are balanced with the needs of the agricultural industry, should be encouraged.

In addition to the previous steps, farmers need to take an active role in land use decisions and in the development and evaluation of policies, regulations and incentives that may significantly affect commercial agriculture. Farmers need an opportunity to work with their neighbors, King County government and others to address complex and difficult issues associated with maintaining working farms near urban areas.

RL-301 King County should establish an Agricultural Commission composed of commercial farmers representing the diversity in agriculture to advise the King County Executive and Council on the development of innovative programs, policies and regulations that benefit commercial agriculture.

The commission would be staffed by staff experienced in agricultural and land use issues. The commission also would solicit input from agricultural agency technical advisors and others with land use and technical expertise, as well as other affected groups such as the Dairy Federation, Native American Tribes, and project proponents. See Technical Appendix H for a further discussion of agricultural issues in King County.

A. Agricultural Production Districts

Agriculture is most productive in agricultural communities where neighbors support agriculture, where parcels are large enough for commercial agriculture and where labor, farm supplies and market systems for farm products are available. King County's farm soils and most profitable farms are usually found in contiguous blocks with few non-agricultural uses. The Agricultural Production Districts, illustrated in the Agricultural Lands Map, present the least number of land use conflicts for agriculture, contain agricultural support activities and provide the best environment for farming in King County.

RL-302 Agriculture should be the principal land use in the Agricultural Production Districts.
→ Permanent new construction within districts should not conflict with commercial farming and should be limited to residences, farm buildings and direct marketing farm stands. New development should also not disrupt agriculture operations and should have a scale compatible with an active farming district.

Two Agricultural Production Districts in or near urban areas, the Lower Green River Valley and Sammamish Valley, were designated in the 1985 Comprehensive Plan, and those designations have been retained here. The development rights from many, but not all, of the parcels in these two Districts have been purchased through the Farmlands Preservation Program. See Technical Appendix H for information on the Lower Green River Agricultural Production Districts.

RL-303 King County should continue to commit resources and efforts to preserve Agricultural Production District parcels in or near the Urban Growth Area because of their high production capabilities, their proximity to markets, and their value as open space.

RL-304 Agricultural Production Districts are comprised of blocks of contiguous farmlands where agriculture is supported through the protection of agricultural soils and related support services and activities. Roads and natural features should be used as boundaries for Agricultural Production Districts to reduce the possibility of conflicts with the adjacent land uses. Conversion to other uses should occur only when it can be demonstrated that such lands are no longer suitable for agricultural purposes and that their removal will not diminish the effectiveness of farming within the Agricultural Production District boundaries. Conversion of Agricultural Production District land may only occur if mitigated through the addition of agricultural land abutting King County Agricultural Production District of equal acreage, and of equal or greater soils and agricultural value.

Agriculture requires large parcels of land to allow for production which is profitable and sustainable. For soils primarily suited as pasture for dairy operations at least 60 acres appears to be needed for commercial production. For soils suitable for row crops or other livestock, 35 acres is needed for full-time wholesale commercial production of berries or vegetables. Specialty agricultural products, products that are direct-marketed and part-time farming enterprises generally need less acreage to be profitable.

RL-305 Lands within Agricultural Production Districts should remain in parcels large enough for commercial agriculture. Clustering of new dwelling units should be encouraged. In areas particularly suitable for dairy farming, a density of one dwelling unit per 60 acres or clusters of lots at an average density of one dwelling unit per 60 acres may be preferable to current zoning. Where the potential for full-time commercial crop production exists, density should be one dwelling unit per 35 acres. Where extensive subdivision and development of parcels has already occurred, the density should be one dwelling unit per 10 acres. The County should accommodate the need of farmers to provide on-site housing for employees, where this can be accomplished without unnecessarily removing land from agricultural use or conflicting with other public interests. King County should work with the Agricultural Commission to implement any changes in zoning by December 31, 1995.

In order to further maintain and enhance commercial farming on small farmland parcels, farmers and prospective farmers must have access to information on marketing and production strategies for small acreages, the potential for specialty crops and ecological farming techniques.

RL-306 King County should support the work of Washington State University Cooperative Extension for technical and marketing assistance for small-scale commercial farmers

Public road and utility projects within and through Agricultural Production Districts need to be designed to prevent disruption to agriculture. For example, roads with adequate shoulders and signs to protect farm equipment from faster vehicles reduce conflicts with agriculture. Therefore, road and utility district capital facilities and plans, including water, waste water and drainage, need to ensure that services are consistent with preservation of long-term agriculture. (Chapter Eight, Facilities and Services, contains policies requiring special district plans to be consistent with land use plans.)

RL-307 Public services and utilities within and adjacent to Agricultural Production Districts (APDs) should be designed to minimize significant adverse impacts on agriculture and to maintain total farmland acreage and the area's historic agricultural character.

- a. Whenever feasible, water lines, sewer lines and other public facilities should avoid crossing Agricultural Production Districts. Installation should be timed to minimize negative impacts on seasonal agricultural practices; and
- b. Road projects planned for the Agricultural Production Districts including additional roads or the widening of roads should be limited to those needed for safety and which benefit agricultural uses. Where possible, arterials should be routed around the APDs. Roads that cross APDs should be aligned, designed and maintained to minimize negative impacts on agriculture, and to support farm traffic; and
- c. In cases when public or privately owned facilities meeting regional needs must intrude into Agricultural Production Districts, they should be built and located to minimize disruption of agricultural activity.

Parks and farms are not necessarily good neighbors, since park users can trespass and damage crops, animals and farm equipment. Recreation near and within districts can be planned to prevent trespass. For example, a park located across a river or ravine from an Agricultural Production District or a farm would have a pleasant view of farmland without encouraging trespass.

RL-308 Active recreational facilities should not be located within Agricultural Production Districts. When new parks or trails are planned for areas within or adjacent to Agricultural Production Districts, King County should work with farmers to minimize impacts to farmland and agricultural operations.

B. Agriculture Outside of Districts

Many individual farms are in the Rural Area and those portions of the Urban Growth Area where low density land uses present fewer conflicts with agriculture. Continued farming on such parcels is encouraged through residential zoning that maintains large lots and low densities, and treats farming as a permitted use.

In the Urban Growth Area where medium to high density land uses make farming on lands outside of districts difficult, King County can offer incentives to retain farming as a desirable use. For example, density bonuses may be an incentive for cluster developments that conserve a parcel of productive farmland. When opportunities for continued farming are assured through plat restrictions or conservation easements, King County can plan adjacent land uses to reduce conflicts for farming.

- RL-309** Because of the variety of public benefits, King County should offer incentives to conserve farmlands outside of Agricultural Production Districts. When permanent conservation of a parcel of farmland is assured, adjacent land use proposals should be designed to minimize conflicts with agriculture.

King County has limited remaining areas with prime farmland soils critical for highly productive agriculture, especially near Urban areas.

- RL-310** The remaining prime farmlands in the Urban Growth Area should be evaluated in 1995 for their potential value for food production. Those areas that could continue to perform small-scale agricultural activities, such as market gardens, small-scale livestock operations, community pea patches or as educational or research farms, shall be zoned for agriculture.

C. Agricultural Practices

Agricultural practices modify the natural environment in order to produce food or fiber or maintain livestock for human use. Ideally, practices that maintain the productivity of the lands also protect environmental quality. Farmers, technical advisors and environmental regulators must work together to understand the relationships between production practices, environmental protection and profitability. These practices, referred to as Best Management Practices, are designed to prevent erosion, retain riparian vegetation, avoid stream bank collapse, properly dispose of animal wastes, safely use and dispose of pesticides and prevent excessive surface water runoff.

- RL-311** On an on-going basis, King County should develop incentives, educational programs and other methods to encourage agricultural practices which maintain water quality, protect public health, protect fish and wildlife habitat, protect historic resources and prevent erosion of valuable agricultural soils.

IV. Mineral Resources

King County contains many valuable mineral resources, including deposits of coal, sand, rock, gravel, silica, peat, clay, metallic ores and potentially recoverable gas and oil. Mining and processing these deposits is an important part of King County's economy, currently providing hundreds of jobs and producing materials used locally, regionally and nationally. Mining also has historic significance, in that it provided the impetus for past development in many parts of King County.

Four main steps are necessary to maintain and enhance commercial mineral resource industries. First, mineral resource sites should be conserved through designation and zoning. Second, it is necessary to prevent or minimize land use conflicts between mining, processing and related operations and adjacent land uses. Third, operational practices are necessary that protect environmental quality, fisheries and wildlife, but are balanced with the needs of industry. Finally, mining areas need to be reclaimed in a timely and appropriate manner.

APPENDIX VII

Installment Purchase Agreements for PDR



FACT SHEET

INSTALLMENT PURCHASE AGREEMENTS

DESCRIPTION

Purchase of Agricultural Conservation Easement (PACE) programs compensate property owners for restrictions on the future use of their land. One of the biggest challenges in administering PACE programs is figuring out how to pay for them. This fact sheet describes an innovative financing plan that helps jurisdictions stretch available funds while offering unique benefits to landowners.

What it is

An installment purchase agreement (IPA) is an innovative payment plan offered by a handful of jurisdictions with Purchase of Agricultural Conservation Easement (PACE) programs. IPAs spread out payments so that landowners receive semi-annual, tax-exempt interest over a term of years (typically 20 to 30). The principal is due at the end of the contract term. Landowners also can sell or securitize IPA contracts at any point to realize the outstanding principal. The IPA financing plan won the Government Finance Officers Association Award for Excellence in 1990.

How it works

The day before settlement, the jurisdiction sets the rate for the interest paid to the IPA holder. The rate is typically pegged to the current return on U.S. Treasury bonds. However, counties and local governments can set a minimum interest rate, or "floor," to provide participating farmers with additional security.

Jurisdictions can purchase zero-coupon bonds to cover the final balloon payments. "Zeroes" do not generate regular interest income. Instead, they yield a lump sum when the bond matures. Because zero coupon bonds cost a fraction of their face value, the public entity leverages available funds. "Zeroes" with a face value equal to the purchase price are usually purchased the day before settlement.

At settlement, the landowner grants the jurisdiction a permanent agricultural conservation easement in exchange for an IPA. Then the jurisdiction begins making tax-exempt interest payments twice a year. The balance of the purchase price is paid to landowners at the end of the agreement. The landowner may sell or "securitize" the IPA on the municipal bond market to recover the outstanding principal before the end of the agreement.

HISTORY

Howard County, Maryland, pioneered IPA as a strategy to fund its PACE program in 1989. By 1987, the county's five-year-old farmland protection program had stalled. Lump-sum payments were no longer a competitive option for farmers due, in part, to dramatic increases in land prices. Later that year, county officials met with a financial advisor to explore ways to make the most of accumulated tax revenues and reinvigorate the program. The advisor combined installment payments and the purchase of zero coupon bonds with the county's traditional funding mechanisms. Working with the county executive, county agencies and bond counsel to refine the proposal, the plan was announced in May 1989. Workshops were held for interested property owners over the next few months and the County Council approved the first round of IPAs in November. To date, 81 agreements have been executed in Howard County, adding 9,200 acres to the 7,500 protected before the IPA program was created.

Based on the Howard County model, Harford County, Md., Burlington County, N.J. and Virginia Beach, Va. have developed IPA programs to stretch public funds for farmland protection. In addition, Pennsylvania's statewide farmland preservation program is crafting an IPA program. In the spring of 1999, Pennsylvania legislators earmarked \$500,000 to support this effort.

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INSTALLMENT

PURCHASE

AGREEMENTS

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For information about farmland protection techniques contact AFT's technical assistance service.

FUNCTIONS AND PURPOSES

IPAs are intended to make PACE programs competitive with developers by providing unique financial and tax advantages. In addition, this payment option enables jurisdictions to use accumulated and future dedicated revenues to protect land while it is still available and relatively affordable.

ISSUES TO ADDRESS

Authority and Approvals

In general, state and local governments can enter into IPAs if they have the authority to issue general obligation bonds. Because IPAs constitute long-term debt, agreements typically require the same approval process as bonds. Laws governing the issuance of bonds vary from state to state. Some states require approval by the legislature, the voters or both. For more information, contact state agencies that regulate municipal bond issuance, bond counsel or independent investment banking or public financial advisory firms.

Funding

An IPA program requires dedicated funds to cover the interest and principal payments. Howard County uses proceeds from a local real estate transfer tax and the county's share of a statewide agricultural transfer tax to support its program. Virginia Beach relies on revenue from a property tax increase and a tax on cellular phone use.

BENEFITS

- Landowners may defer capital gains taxes until they receive the principal for the purchase price. This keeps a larger proportion of the proceeds "working" or earning interest.
- The semi-annual interest paid on the outstanding balance of the purchase price is exempt from federal, state and local income taxes and can provide a supplementary income stream.
- Landowners can liquidate their IPA prior to the end of the agreement.

- IPAs can be transferred to heirs and are useful in estate planning.
- The package of financial and tax benefits offered to landowners could enable them to net more than they could through a traditional cash sale. These benefits may encourage landowners to accept less than the appraised value for their easements.
- IPAs stretch public funds. By deferring principal payments, public entities can buy more easements while land is available and relatively affordable. Also, by purchasing "zeroes" jurisdictions spend a fraction of the negotiated purchase price at closing and leverage available funds.

DRAWBACKS

- IPAs require a dedicated funding source to cover the interest payments.
- An IPA program may take up to six months to develop.
- Bond counsel, a paying agent and a financial advisor will have to assist in each settlement. The estimated cost of each transaction including fees and charges by rating agencies ranges from \$5,000 to \$20,000. These costs can be higher—on a percentage basis—than the costs to issue bonds for a cash-purchase program.
- Because IPAs are backed by the full faith and credit of the jurisdiction, each agreement may require the same approval process as general obligation bonds.

APPENDIX VIII

Lancaster County, Pennsylvania

Creating a Farmland Protection Package

We have examined public and private farmland protection tools and programs, and we have discussed how different tools can work together for a more powerful and effective approach to keeping land in farming. In this chapter, we summarize the strengths and weaknesses of each tool. We then present examples of strategies for the most common farmland protection situations: the strong farming community, the medium-strength farming community, and the weak farming community. Finally, we warn about some potential pitfalls with farmland protection programs.

The most successful farmland protection programs employ several techniques in a coordinated package and enjoy long-term commitment from landowners, politicians, and the community. Any one technique alone cannot achieve protection for more than the short run. And some techniques, if used alone, can actually encourage development. For example, as described earlier, a property tax break could be used by land speculators to lower the cost of holding farmland while waiting for the value of the land for development to rise.

A strategic package of techniques should be designed to ensure that:

- protection efforts are cost effective: the benefits of protection are achieved at a reasonable cost
- a critical mass of farmland is protected: enough farmland and farmers for efficient farming and to enable farm support businesses to survive
- protection is durable over the long run
- land prices for farm expansion and the entry of new, young farmers are affordable

Each farmland protection technique has advantages and disadvantages (see table 13.1). It is important to understand the potential benefits and drawbacks of these techniques. When a community uses a package of techniques, some of the disadvantages are canceled out. For example, one shortcoming of offering property tax breaks on farmland is that they may go to short-term land speculators; but in states with purchase-of-development-rights programs, the same tax breaks also go to owners of permanently preserved farmland that is limited to farm uses.

Farmland Protection Strategies¹

Now that you have seen how the individual tools and techniques work, it is time to put them together in a package that reflects a community's goals and

TABLE 13.1
Advantages and
Disadvantages of
Farmland Protection
Tools

Protection Tool	Benefits	Drawbacks
Comprehensive Plan	An organized way to identify good farmland and set growth and protection goals. Serves as the basis for land use regulations.	Not legally binding. May be changed or ignored by planning commission or elected officials as they rule on development proposals.
Differential Assessment of Farmland	Modest incentive to keep land in commercial farming.	Land speculators and hobby farmers may qualify, unless a standard of 25 or more acres or farm income of more than \$10,000 a year is used.
Agricultural Districts	Provide exemption from local nuisance ordinances. Often tied to differential assessment. Limits on some other taxes and sewer and water lines. Greater protection from eminent domain.	Strictly voluntary. Landowner may withdraw at any time. Little use near urban areas.
Right-to-Farm Law	Protects farmers from nuisance complaints for standard farming practices.	Does not stop complaints from nonfarm neighbors. May not protect major changes in farm operations or new operations.
Agricultural Zoning	Limits nonfarm development. Can protect large areas of farmland at a low public cost.	Local governments can rezone land out of agriculture or cancel agricultural zoning. Landowners may complain about "equity loss" or the lack of compensation.
Urban Growth Boundaries	Discourage sprawl. Promote more compact development that is cheaper to service.	Agreements on boundaries between cities and counties may be difficult to reach.
Purchase of Development Rights	Provides permanent protection of farmland and pumps cash into the farm and farm economy.	Cost may be high. May be difficult to protect a critical mass of farmland.
Transfer of Development Rights	Developers compensate farmland owners. Creates permanent protection of farmland.	Difficult to establish, especially where development is scattered. Opposition by landowners in receiving areas.
Private Land Trusts and Conservation Easements	Can provide permanent land protection. Can forge public-private partnerships.	Shortage of money. May rely too often on limited development. May create islands of protection, not protect a critical mass or contiguous lands.

Area P.

Recomm.

objectives of how and where to grow. A "no growth" option is not legal. The package should strike a balance between protecting farmland and accommodating development. This balance depends on local politics, the courts, landowners, the economics of farming, and development pressure.

The three strategies discussed here are designed for the most common farmland protection situations. Above all, a community must decide whether its goal is to protect working farmland or to protect open space. If farmland protection is the goal, the community should employ techniques to encourage the continuation of farming as an industry. Protecting farmland also does protect open space, which is often important for public support. But if farms cannot remain profitable, they will be developed and open space will diminish.

Open space, however, includes a host of nonfarm properties such as small parcels, forests, wetlands, steep slopes, wildlife preserves, parks, and trails. If open-space protection is the true goal, the community should modify the techniques in table 13.1 (especially the type of zoning) in crafting a package for maintaining open spaces.

Strategy One: Maintaining a Strong Farming Community

Area Profile:

A strong farming community. Low to moderate development pressure. Land holdings are still mostly in large ownerships of over 100 acres and in contiguous areas of over 1,000 acres. Farm support businesses are adequate. Farmers want to continue farming. This is usually a rural community or an ex-urban community with some long-distance commuting to urban or suburban employment centers.

Recommended Set of Tools:

- comprehensive planning by the township or county
- urban growth boundaries or village growth boundaries
- agricultural zoning of one building lot per 25 acres or per 50 acres; maximum building lot size of 2 acres
- purchase of development rights and/or transfer of development rights
- agricultural districts
- preferential farmland taxation with a stiff rollback penalty for conversion to a nonfarm use
- relief from sewer and water assessments
- right-to-farm law
- agricultural economic development, such as farmers' markets and community-supported agriculture projects

Lancaster County, Pennsylvania

Lancaster County, Pennsylvania, is the only jurisdiction in the nation that has all nine of these farmland protection tools. In 1996, American Farmland Trust recognized Lancaster County's farmland protection efforts with a national achievement award. According to Bob Wagner of the American Farmland Trust,

"Lancaster County is setting the pace for farmland preservation in the United States."²

Lancaster covers 603,000 acres of southeast Pennsylvania and contains some of the most productive farmland in the United States. It is the leading agricultural county not only in Pennsylvania but in the entire Northeast, with over \$680 million a year in farm goods sold. It is also the nation's number one nonirrigated farming county. Lancaster County farming features the production of dairy products, chickens, and hogs and ranks in the top ten among counties nationwide in the production of these commodities. There are 4,700 farms in the county and about 380,000 acres in farm use. Farm support businesses are strong and serve farmers within a radius of up to 100 miles.

Lancaster County is no stranger to development pressure. The county has a population of 450,000 and is expected to have 545,000 people by the year 2010. It lies sixty miles west of Philadelphia, America's fourth-largest city, and each year the Philadelphia suburbs creep closer. Accommodating development as efficiently as possible without conflicting with the farmland base is a major challenge.

Although county-level planning is essentially advisory, all forty-one townships, nineteen boroughs, and the city of Lancaster have comprehensive plans. The comprehensive plans spell out community goals and objectives for accommodating growth and protecting farmland. The plans show where each community intends to develop land.

To date, a dozen urban and village growth boundaries have been created between boroughs and their surrounding townships. The boundaries indicate where urban-type public services, such as sewer and water, will be provided. Within the boundaries, growth is encouraged, and there should be sufficient buildable land for the next twenty years. The boundaries create a more compact style of development, which is cheaper to service and doesn't waste land. The areas within growth boundaries may eventually serve as receiving areas in transfer-of-development-rights programs. Interestingly, the county's purchase-of-development-rights program has helped to create parts of urban growth boundaries and hence channel development in desired directions, away from productive farmland.

Agricultural zoning is found in thirty-nine of Lancaster County's forty-one townships and covers 320,000 acres or 54 percent of the entire county. Agricultural zoning next to the growth boundaries reinforces the boundaries and makes leapfrog development less likely. Most townships employ a zoning standard of one building lot of up to 2 acres for every 25 acres owned. Agricultural zoning allows some nonfarm uses but of a type and density that does not interfere with neighboring farm operations. Because there have been few rezonings of land out of agriculture, agricultural zoning has dovetailed well with the county's purchase-of-development-rights program and with Manheim Township's local transfer-of-development-rights program. Agricultural zoning helps to buffer "preserved" farms from encroaching development, and it is essential in creating sending areas from which to transfer development rights.

Although agricultural zoning does not offer compensation to landowners for restrictions placed on their land, the purchase or transfer-of-development-rights does provide compensation and has softened opposition to agricultural zoning.

In turn, agricultural zoning has helped to keep the cost of buying development rights within reason. Lancaster County has paid an average of \$2,000 an acre for development rights since 1989. This is about one-third the average price paid in neighboring Chester County, which has little agricultural zoning and typically allows one dwelling per 2 acres in rural areas.

The Lancaster County Agricultural Preserve Board and the nonprofit Lancaster Farmland Trust have been aggressive in acquiring development rights to farmland. These organizations have succeeded in preserving over 23,000 acres of farmland, with 19,000 acres held by the county and 4,000 acres held by the Trust. Since 1989, Lancaster County has received over \$20 million in funding to buy development rights under a state program, and the county commissioners have added over \$7 million. Three blocks of over 1,000 acres of preserved farmland have been formed, and parts of urban growth boundaries have been created by preserving the land for farming. The county has a backlog of 170 landowners who have applied to sell their development rights.

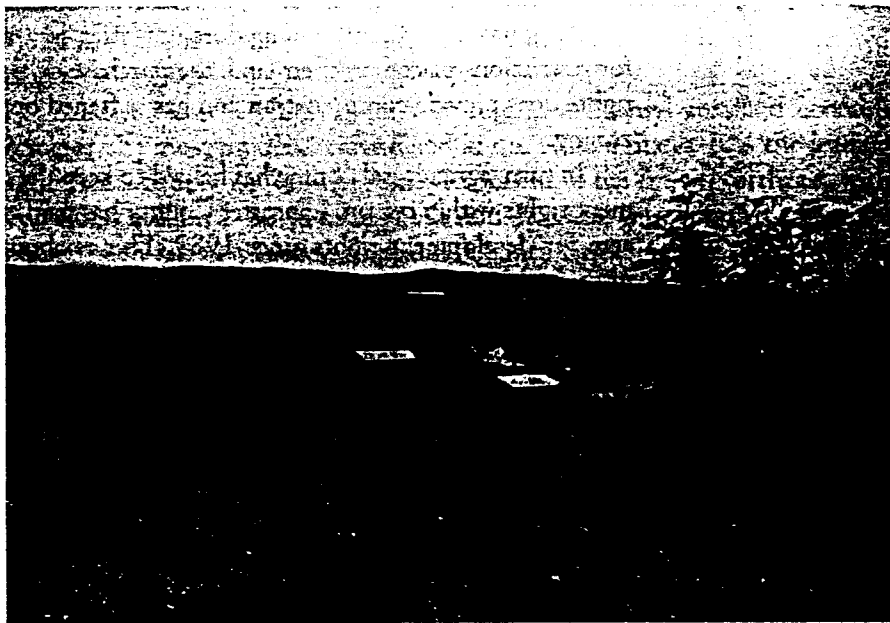
Lancaster County has over 120,000 acres enrolled in voluntary agricultural districts. While agricultural districts are not a substitute for agricultural zoning, they offer attractive benefits at no cost or restriction to the landowner. In Lancaster's case, land enrolled in a district does not qualify for differential assessment. Instead, landowners receive greater protection from eminent-domain actions by government agencies, local governments agree not to enact nuisance ordinances that would restrict normal farming practices, and landowners are eligible to apply to the county government to sell their development rights.

Differential assessment is important for keeping farm property taxes affordable. Pennsylvania has a "clean and green" law that allows counties to assess farmland at its use-value for property tax purposes. In Lancaster County, most of the land that qualifies for use-value assessment is also zoned for agriculture, meaning the tax breaks apply to farmland that will be protected at least for the medium term.

Since 1976, Pennsylvania has provided relief to farmers when water and sewer lines are extended past their property. Usually a landowner must pay a fee based on each foot of line that runs through the property. For a farm owner, this fee can be a whopping burden and has driven out many farmers in the greater Minneapolis-St. Paul area, for example. In Pennsylvania, farmers pay a fee based only on the road frontage of their house.

Pennsylvania has a right-to-farm law, which is further strengthened in agricultural districts to give farmers some legal protection against nuisance complaints by nonfarm neighbors. Though the right-to-farm law is not foolproof, it meshes with agricultural zoning and agricultural districts to indicate that farming is the preferred land use in the area.

PHOTO 13.1
Part of a 1,300-acre
contiguous block of
preserved farmland in
Lancaster County,
Pennsylvania.



Agricultural economic development is important to support the profitability of farm operations. Although federal farm programs and interest-rate policies are dominant, state and local governments can promote the marketing of farm produce through farmers' markets, direct sale to consumers, and community-supported agriculture projects. Lancaster County has thriving farm stands and farmers' markets and some community-supported agriculture projects. The Lancaster Chamber of Commerce is the nation's only chapter that has a full-time agricultural services position charged with developing markets for farm products.

The Lancaster County success story depends on leadership from the township officials who adopted and have maintained agricultural zoning, the county commissioners who formed and continue to fund a purchase-of-development-rights program, the state legislators, the citizens who formed the private, non-profit Lancaster Farmland Trust, and the capable farmers who have shown a long-term commitment to agriculture.

Strategy Two: Maintaining Some Farming in an Increasingly Suburban Community

Area Profile:

A moderate-strength farming community. Moderate to heavy development pressure. Land holdings are fragmented, with some large ownerships of over 100 acres and a considerable amount of scattered residential and commercial development. Farm support businesses are adequate but may not remain so for long. Some farmers want to continue farming; others don't see much future in it. This is an ex-urban bedroom community within commuting distance to urban and suburban employment centers.

**Genesee County, New York
Agricultural Development Plan**

*~Prepared for the~
Genesee County Agricultural and Farmland Protection Board*

February, 2001

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Genesee County: Agricultural Development Plan

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INTRODUCTION

The Genesee County Agricultural and Farmland Protection Board undertook this analysis of the County's agricultural industry as a component, and supplement, to the County's Agricultural and Farmland Protection Plan. In doing this, the Board acknowledges both the important economic role that agriculture plays in the County, but also the vital role that farm profitability plays in maintaining the County's critical land resources. Recommendations from this study will be used to support and develop innovative agricultural programming that promote successful farms. The outcome of this analysis is encompassed in the following elements of the "Agricultural Development Plan."

The "Agricultural Development Plan" uses a study of empirical data, case studies, in-depth interviews with key industry players, and an analysis of industry trends to establish a 10-year strategic vision for Genesee County agriculture including a series of short-term action items. Collectively, these action items will direct cooperative efforts among private and public sector's targeted at improving the economic climate facing farmers and agribusinesses. This ambitious plan for the future of Genesee County agriculture supports an expanding mission of the Farmland Protection Board:

To investigate methods to support, promote, develop and preserve the agricultural industry in Genesee County.

To be successful in this endeavor, the study team identified six key focus areas in which to undertake 38 new initiatives or renew current efforts. These six focus areas are:

- Economic Development
- Business Development
- Policy and Planning
- Work Force Development
- Public Outreach and Education
- Regulation and Legislation

This document addresses each of these areas with respect to a Ten-Year Objective and a Five-Year Action Plan. The Ten-Year Objective sets the tone for the overall plan and provides long-term guidance for implementation. The Five-Year Action Plan is the work plan, the current and immediate portion of the plan. These are presented together so that the reader can understand how the long-range goals will be implemented.

The following project background informs the reader of the processes and information used to develop this plan.

PROJECT BACKGROUND

Recommendations in this strategic plan are drawn from empirical and anecdotal evidence collected during the study period of July 1, 2000 through November 16, 2000.

Interpretations of this data were utilized in preparing the Ten-Year Objective and Five-Year Action Plan and in developing evaluation benchmarks.

Also critical in this analysis is the definition of agriculture that motivates the agricultural programs in Genesee County.

DEFINITION OF AGRICULTURE

This study uses a broad definition of agriculture that includes all aspects of the cultivation and production of plant material and animal products; the marketing, processing and distribution of these products; and other secondary on-farm activities, (i.e., agricultural tourism, forestry, and aquaculture.)

EMPIRICAL INFORMATION

A statistical analysis of the region was conducted using information from the United States Census of Agriculture, Bureau of Economic Analysis, Regional Economic Information System, and County Business Patterns. Information from these sources was adjusted for rural and urban bias and inflation. Trend analysis was conducted over the last twenty years. In addition, the study utilizes the IMPLAN input-output model to characterize the indirect and induced impacts of agriculture on the broader economy.

The statistical analysis can be found in Appendix A and is broken down into the following categories:

1. Section 1: Financial Summary
2. Section 2: Characteristics and Structure
3. Section 3: Secondary Industry Impact

Furthermore, Orleans County, New York and Wyoming County, New York were chosen as analogs to Genesee County and are used as a comparative benchmark. These counties were chosen due to similarities in farm size, community, and crop characteristics.

ANECDOTAL INFORMATION

Interviews were conducted with approximately 80 farmers, agricultural service professionals, public officials, and other interested parties throughout the region (Appendix B). Information was gathered on individual perceptions of the agricultural industry, potential for future growth, and the impact of public policy. This information was used to validate trends discovered in the empirical analysis as well as to discover underlying issues of importance to the industry.

Individual comments focused on seven broad issue areas. The seven issue areas are labor, land use, marketing, finance, education and training, regulation, business development, and infrastructure. The viewpoints expressed ranged from pessimistic to optimistic. One commonality among the farmers interviewed was the desire to continue farming and pass the farm on to the next generation. Interview results are integrated into the recommendations of the “Agricultural Market Analysis and Strategic Plan.” For more detail, refer to the following Appendices:

1. TAB 4: Strengths, Weaknesses, Opportunities, and Threats Summary
2. Appendix C: Agricultural Economic Development Case Studies
3. Appendix D: Industry Practice Summaries

PLAN REVIEW AND REVISION

In order for a strategic plan to be effective over the long-term, it must be a dynamic, living document. To maintain its focus and vision, the Genesee County Agricultural Development Plan should become an integral part of the Agricultural and Farmland Protection Board’s annual work plan and should be supported by county, state and local agencies. The Agricultural and Farmland Protection Board should work with the County Legislature, the Office of Planning, Cornell Cooperative Extension, the Soil and Water Conservation District, Genesee County IDA, and others to develop specific, measurable goals and to report progress toward those goals on an annual basis.

Furthermore, the Agricultural and Farmland Protection Board should undertake a periodic review of progress made toward fulfilling the long-term priorities set forth in this document and to update them as appropriate to current conditions. It is further recommended that the review process be open to the public as a means to receive up-to-date input.

MAJOR FINDINGS

Despite the high pace of regional development and the disappointing performance of commodity markets, Genesee County has maintained, and in many cases, grown a strong and vibrant, agricultural economy. This is supported by the fact that agriculture and agriculturally related industries account for nearly 30% of all private and public sector economic activity in Genesee. Simply stated, agriculture is a mainstay of the county economy. Much of this success can be attributed to a proactive, core group of agricultural entrepreneurs.

This section of the Genesee County Agricultural Development Plan takes a snapshot of current economic conditions in Genesee County; the strengths, weaknesses, opportunities, and threats (SWOT) facing the industry, as well as a look at agricultural development initiatives in selected jurisdictions around the United States.

ECONOMIC IMPACT

Agriculture in Genesee County, New York, is a large and extensive industry consisting of 500 farm enterprises on over 170,000 acres of farmland. In 1997, the last year for which comprehensive data is available, Genesee County's farm output totaled over \$140 million and employed nearly 1,200 people on the farm. Along with the direct impact to the economy, Genesee's farm economy contributed an additional \$63 million and employed another 900 workers through related industries.

While much of the U.S. farm economy has been adversely impacted by declining real prices, increasing production costs, and dwindling farm incomes, Genesee County's farming sector has largely overcome these pervasive trends. Between 1987 and 1997, real farm receipts in Genesee County increased by \$19 million while expenses increased only \$4 million. As a result, average farm income in Genesee County has increased 130 percent between 1987 and 1997. By comparison, U.S. farmers, as a group, have seen average farm income increase only 30 percent over this same time period.

However, not all of Genesee County's farming sector remains immune from problems. Dairy farming, in particular, has been adversely impacted by rising costs and declining real milk prices. Since 1987, 35 percent of all Genesee County dairy farms went out of business accounting for half of all farms lost. Some of these dairy farms likely switched to alternative crops. The increase in vegetable production in Genesee County has been especially pronounced. Between 1987 and 1997, vegetable acreage has increased 40 percent while cash receipts from vegetable sales have increased nearly 70 percent. The shift away from primary commodities like dairy to higher valued products like vegetables has been a primary factor in improved farm profitability for the County.

If Genesee County's farming sector evolves away from dairy and towards vegetables, this has important impacts for the local service economy. For one, expenditures by the vegetable farming sector tend to be more localized as compared to the dairy farming sector. On average, 44 cents of every dollar spent by the Genesee County vegetable

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farming sector remains in the County, while 23 cents of every dollar spent by the dairy farming sector remains in Genesee County. This disparity arises from the dairy sector's reliance on feed and feed products (60 percent of expenditures), which is largely imported from outside of the County.

Along with expenditures being more localized from the vegetable farming sector, the demands of the vegetable sector differ significantly from dairy. Vegetable farms rely on different agricultural service firms which provide custom work such as pesticide applications. As vegetable production has grown in the County, so too has the number of agricultural service firms – up 40% between 1987 and 1997.

Other agricultural sectors including food processors and input suppliers play an important role in the local Genesee County economy. Dairy processing, especially condensed and evaporated milk, remains an important agricultural sector producing \$424 million and employing 885 individuals. In addition, farm equipment and the frozen/canned fruits and vegetables sectors combined to produce over \$110 million per year and employed over 600 individuals. In aggregate, agriculturally related sectors contributed nearly \$600 million in output and almost 2,000 jobs during 1997.

KEY ECONOMIC FACTORS (1997)				
Farming Sector	Output (Million \$)	Output Multiplier	Employment	Employment Multiplier
Dairy Farm Products	\$51.1	1.33	190	2.30
Hay	\$17.8	1.47	503	1.22
Cattle	\$5.1	1.58	45	1.75
Grain and Oilseed Crops	\$10.6	1.48	115	1.55
Other	\$6.9	1.44	76	1.54
Vegetables	\$49.4	1.54	265	2.58
Total Direct Impact	\$140.9		1,194	
Indirect Impact	63.4	1.45	919	1.77
Total Impact	204.3		2,113	

To see a complete economic analysis, please refer to Appendix A.

SWOT ANALYSIS

SWOT analysis is a tool used by strategic planners and marketers to assess the competitive environment of a region, industry, business, or product. It is a very simple technique that focuses on the Strengths, Weaknesses, Opportunities, and Threats (SWOT) facing Genesee County agriculture.

For the purpose of this study, the strengths, weakness, opportunities, and threats were assessed for the agricultural industry overall to include production agriculture as well as agricultural support industries. The SWOT criteria identified are drawn directly from the

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study team's interviews with the agricultural industry and public officials. As such, this analysis should be considered an industry self-assessment.

SWOT ANALYSIS MATRIX	
<i>INTERNAL FACTORS</i>	
Strengths	Weaknesses
Physical Environment	Tax Structure
Human Capital	Regulatory Burden
Infrastructure	Development Patterns
Demographics	Complicated Political Structure
Economic Strength	Regional Planning
Public Sector Support	Risk Capital / R&D Funding
Agricultural Region	Labor
Location	Utilities
Development Pressure	Water Supply/Access
Supportive Community	Land Competition
Diversified Production Base	Land Fragmentation
Research and Development	Worker Education
Agricultural Education	Transportation Corridors
Stable Land Base	Land-Use Planning
Market Access/Information	Risk Management
Finance	Grain Marketing Facilities
Cooperative Industry	Farm Consolidation
<i>EXTERNAL FACTORS</i>	
Opportunities	Threats
Venture Development	Development Potential
Industry Consolidation	Regional Competitiveness
Product Development/R&D	Management Recruitment
Labor Force Development	Water Resources
Finance	Commodity Prices
Management Training	Industry Consolidation
Regional Land-Use	Declining Markets
Leadership Development	Energy
Public Education	Neighboring Land-Use Controls
Economic Development Support	International Market Access
Regional Demographics	Farm Consolidation
Processing Capacity	
Alternative Energy	

The complete SWOT analysis can be found under Tab 4.

CASE STUDIES: AGRICULTURAL DEVELOPMENT PROGRAMS

The ACDS study team feels that a brief overview of selected public and private sector development initiatives proves as an instructive introduction to agricultural development. The study team interviewed and evaluated the best practices employed by selected agricultural viability projects throughout the United States. Summaries of these programs are provided below.

LOUDOUN COUNTY, VIRGINIA

Loudoun County has had an agricultural development program for 10 years. The Agricultural Development Program has operated under the guiding principles of several strategic plans. Policy work, agritourism programs, advice to farmers, publications and the development of a farmers market system are key program areas of the Agricultural Development Program. Production of marketing guides, listings of specialty producers, spring and fall farm tours and a website are the primary tools of the program and have proven very successful. Recent full color glossy publications include *Spring Farm Tour and Product Guide 2000*, *Loudoun Valleys Color Farm Tour* and *The Loudoun Wine Trail*. Their two newest programs are the farmland viability program and the Purchase of Development Rights Program. The Agriculture Development Program conducts 5 major events throughout the year. These events target non-agricultural citizens in an effort to educate and increase their awareness of the agricultural industry.

ONEIDA COUNTY, NEW YORK

Oneida County has had an Agricultural Development Program for two years. However, the current Agricultural Development Program Officer has been in place just several months. The Agricultural Development Program is focusing on farm propagation, food processing and manufacturing for enhancing the agricultural industry. The Agricultural Development Officer is looking at market opportunities, like the niche ethnic markets from New York City to Detroit, for rekindling meat packing in the state. The Agricultural Development Program has worked out a program that provides local agricultural products to the state prison system. The institutional markets provide a great market outlet, however, the downside is that they shop for price.

MASSACHUSETTS FARM VIABILITY ENHANCEMENT PROGRAM

The Massachusetts Farm Viability Enhancement Program has been in place 5 years. This program is a competitive process and to date, there are 105 farms with business plans, 10,000 acres under protective covenants, and an average projected increase in income of \$19,000 per farm. In 2000, an additional 34 farm operations will be participating in the program. Farm viability plans are developed by teams of agricultural, economic and environmental consultants who make recommendations on ways of increasing farm income through such techniques as improved management practices, diversification, direct marketing, value-added products and agritourism. Funding is made available to the farmer to implement the plan in exchange for an agricultural use covenant on the property.

THE AMERICAN WHITE WHEAT PRODUCERS ASSOCIATION

American White Wheat Producers Association (AWWPA) is a producer-owned marketing cooperative formed in 1988 in Atchison, Kansas. Their mission is to develop white wheat markets for their producers. Currently, there are 300 farmers in this closed cooperative. AWWPA's primary goal is to add value, getting their farmer-members product further up the marketing chain. Recognizing the importance of the customer, AWWPA has spent the last ten years perfecting an identity preserved, targeted delivery, process for value-added white wheat products.

THE TILLAMOOK COUNTY CREAMERY ASSOCIATION

The Tillamook County Creamery Association (TCCA) is an open member cooperative in only two counties - Tillamook and Clatsop, Oregon. The TCCA has a raw milk supply of 175,000 gallons/day from 150 members with herds averaging 135 cows. These grazing dairies lead the nation in milk quality. The TCCA is a national marketer of naturally aged cheddar and a variety of other cheeses, butter, and an extensive line of premium ice cream, sour cream and yogurt. Marketing tools include full colored recipes and gift catalogs. Employees include 45 professional and over 350 non-professional employees that staff their manufacturing plant. The plant processes 1.5 million pounds of fresh milk daily, seven days per week. One million visitors tour the manufacturing plant each year and make direct purchases, which adds to the premiums received by the members. TCCA represents about one-third of all milk produced in the state of Oregon. One hundred percent of all the milk produced goes to the creamery in Tillamook County. Members, however, do deliver skim milk to other coops. The TCCA had \$199 million in total sales and handled 635 million pounds of milk in 1999. Members receive anywhere from \$1.00 to \$2.00 more for their milk above the Federal marketing order.

VIRGINIA'S SHIPPING POINT FARMERS MARKET SYSTEM

In 1985 the Virginia Department of Agriculture conducted the Virginia Wholesale Farmers' Market Feasibility Study. The study concluded that there was a need for farmers to look into supplemental crops such as varieties of fruits, vegetables, greenhouse and nursery stock. The agricultural industry needed to position itself to take advantage of the large consumer base, 60% of the U.S. population, that was within 700 miles. The purpose of the farmers' market system was to provide growers the opportunity to grade, pack and cool products to meet retail and wholesale buyers' specifications.

IOWA STATE AGRICULTURAL SUPPORT PROGRAMS

The State of Iowa has been actively supporting innovations in agriculture through the Iowa Agricultural Development Authority (IADA) and the Iowa Agricultural Finance Corporations (IAFC) since 1981. During the last two decades, Iowa has financed over \$200 million in agricultural and agriculturally related improvements using a combination of capital instruments. The stated reason Iowa has engaged in such a comprehensive approach is to "facilitate private investment capital in this under-served industry." The primary tools employed by the IADA and the IAFC are: 1.) the tecTERRA Food Capital Fund, 2.) the Value-Added Agricultural Products and Processes Financial Assistance Program, and 3.) the Aggie Bond Program.

INDUSTRY TRENDS

DAIRY

- Annual per capita consumption of fluid milk declined from 31 gallons in 1970 to 24 gallons in 1996.
- Cheese consumption increased by more than 140 percent between 1970 and 1996, from 11 pounds to 28 pounds per person.
- Vertical integration in the dairy industry is creating market opportunities for value-added products such as cheeses, ice cream, and other dairy products.
- An increasing trend of producers selling directly to retailers and consumers is accompanied by larger premiums for their products.
- USDA implemented a dairy forward contracting pilot program for milk marketed under the Federal milk marketing order August 1, 2000 through December 31, 2004.
- Strategic alliances among marketing firms are necessary to maintain efficiency and manage costs due to consolidation in the marketing sector.

LIVESTOCK

- Graded, commingled feeder cattle sales allow the small producer to benefit from the price advantage of selling feeder cattle in larger, more uniform lots.
- The last few decades have seen the major cattle feeding areas follow packing facilities as they move west, with the exception of Pennsylvania. The feeder cattle producer ultimately pays the cost of transportation to the feedlot.
- Livestock producers may expect closer public scrutiny in the areas of water quality, animal well-being and nuisance ordinances due to growing population.
- Quality Assured feeder cattle programs are a successful alternative to commingled sales by offering buyers a certified value-added product. The value is added in the form of improved animal health program and more consistent genetic characteristics.
- Quality Assured feeder cattle bring additional premiums when compared to similar weights, breeds, and grades of cattle in other special graded sales.
- Opportunities exist in stocker cattle that are grown primarily on forages. The goal is to add pounds cheaply with forage. The major resource critical to the operation is an abundant source of high quality forage.

GRAIN & OILSEED

- The grain and oilseed sector is predicted to change more than any other sector in the next ten years due to changes in marketing, handling, and industry structure.
- The rate of new product introductions has increased with the baking industry, introducing approximately 1,000 new products annually.
- Consolidation has placed 65% of flour milling and 76% of soybean processing in the hands of the four largest firms. Over the last 15 years, this consolidation resulted in a 12% drop in the number of grain elevators.
- The grain market is adapting to the new and unique product requirements for specific grain qualities and traits by intermediate and end consumers.
- As identity preserved grain marketing grows, the system will change from a commodity system into a product system.
- The role of service firms is becoming more important as a link between seed company, farmer, handler, food manufacturer, and consumer.
- Opportunities for greater vertical integration are apparent at all levels of grain and oilseed marketing including a greater use of new generation cooperatives.

NURSERY & GREENHOUSE

- Nursery and greenhouse production are two of the fastest growing agricultural sectors in Genesee County (78% and 44% respectively) and the State.
- Nursery production offers expanding market opportunities throughout the northeastern United States and Mid-Atlantic Region.
- Local growth trends for native and indigenous plants are expected to increase. As well, growth is expected to increase for herbs, bedding plants, and wetland plants.
- Genesee County leads neighboring jurisdictions in nursery/greenhouse development, but lags development in more urbanized areas of New York.
- Marketing nursery and greenhouse products is dominated by price-competitive large box retailers with expanding opportunity for niche/quality oriented retailers.
- Wholesaling is generally relationship driven and lacks a focused regional market presence.

PRODUCE

- Per capita consumption of fresh produce increased 12 percent during 1987-97.
- During the 1989-98 period, the per capita consumption of apples dropped 10%, peaches 17% and grapes 8%.
- Growers and shippers who provide consistent volume, packaging and grading can receive improved prices and long term buying relationships.
- Growers can reach markets that were once not accessible in a matter of one or two days with improved technology from the field to the packing shed and transportation system.
- The demand for value-added, fresh cut, and ready to eat prepared foods continues to increase dramatically due to the high cost of labor and the importance of home meal replacements.
- Consumer demand for local, retail farmers markets and direct farmer interaction is increasing. This trend is led by the consumers desire for high quality fresh products as well as a desire to understand how the crop was produced.

REGULATIONS

- The Food Quality Protection Act of 1996 established a strong, health-based safety standard for pesticide residues in all foods and has had the most profound impact on the production practices of fruits and vegetables.
 - A major component of this Act is the *Consumer Right to Know*. The *Consumer Right to Know* requires distribution of a brochure in grocery stores on the health effects of pesticides, how to avoid risks, and which foods have tolerances for pesticide residues based on benefits considerations.
 - The re-registration process with the new tolerance levels and reduction in benefits will and has reduced the number and types of pest management tools for the agricultural community.
 - The primary change in food safety management is the early adoption of Hazard Analysis and Critical Control Point (HACCP) planning in both fresh produce marketing and value-added processing. Despite the fact that the produce industry is not subject to mandated HACCP planning, many institutional and large wholesale buyers have made it a requirement.

RECOMMENDATIONS

The following recommendations should be considered a menu of options for agricultural development opportunities. The study team realizes that the County will not be able to implement all aspects of the recommendations, but expects that this list should spark a debate that helps to further classify, refine, and prioritize agricultural development initiatives. As priorities are developed, key agencies should adopt them as part of their individual work plans, and the County should integrate them into its Master Plan. It is also noted that the commitment and support of the County along with the towns and industry is critical to the success of this plan as well as the land-use recommendations included in the “Agricultural and Farmland Protection Plan”.

Note: Each recommendation includes a priority ranking which is based on the frequency and urgency of issues identified during the study; cost considerations address funding issues, exclusive of personnel requirements, based on the study team’s experience; and responsibility which is based on the logical agency(s) to oversee implementation.

ECONOMIC DEVELOPMENT

Ten-Year Objective

Create an economic environment where traditional and non-traditional agricultural operations thrive using a full complement of economic and business development tools. Economic Development initiatives will focus on developing value-added agricultural production, strengthening industry profitability, integrating farming and non-farming communities, encouraging agricultural operations with high returns to the community, increasing wages and proprietor’s income, supporting supplier/vendor networks, and enhancing the quality of life.

Five-Year Action Plan

Recommendation 1: Promote Innovative Financing Options

Genesee’s agricultural industry shows signs of outgrowing the region’s existing capital resources, which consist mostly of community banks and the Farm Credit System. This is due largely to the concentration of large, diversified farming operations as well as the presence of numerous entrepreneurial agricultural and agriculturally related business. As farm size and agricultural innovation continue, the region’s lack of equity and equity/debt hybrid financing may become a limiting growth factor.

In an effort to support these businesses, the County, lead by the Industrial Development Authority, should examine methods to enhance private investment as follows:

1. Support the development of a regional capital network focused on linking regional investors with agricultural entrepreneurs and providing alternative financing for agricultural and agriculturally related businesses. Specific functions of the network should include “deal making” as well as:
 - a. Angel investor training.

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- b. Entrepreneurial training.
- c. Network development to enhance business access to middle market finance.
- d. Professional service provider/advisor network.
- e. Investment pool management (Optional).
- 2. Advocate for changes in New York State legislation to establish:
 - a. Targeted investment tax credits or incentives for agricultural and agriculturally related purposes.
 - b. AGGIE bond authority to support new and beginning farmers' programs.
 - c. New York Agricultural Capital Fund modeled after the Iowa's agricultural finance and support programs including tecTERRA Food Capital Partners.
- 3. Support regional finance innovations through research, training, and partial guarantees such as:
 - a. Venture banking/Angel banking (Appendix E).
 - b. Blended factoring/Purchase order financing (Appendix E).

Priority Level 1: Begin program design and advocacy in the first two program years. Implement new regional program in year 3.

Cost Considerations: Start-up will require extensive staffing resources and may necessitate hiring additional staff resources familiar with entrepreneurial development, regional funders, professional service providers, and equity finance. Set-up costs should be shared regionally and may be supported by a matching grant from the Department of Agriculture and Markets.

Responsibility: Primary coordinating responsibility should reside with the Industrial Development Authority (IDA).

Recommendation 2: Retain, Expand, and Recruit Agribusiness

Retaining existing businesses is widely considered the best and cheapest form of economic development. A stable or growing local industry is one of the most powerful business recruitment tools available. The retention, expansion, and recruitment plan should be updated to specifically address value-added food production; food consolidation and distribution; and farm support industries, such as equipment and seed dealers, and milling. This plan should be based on a targeted marketing study that highlights the County's comparative advantages in distribution, production, processing, and support services. Efforts should focus on the County's two most prominent agricultural sectors; dairy and vegetable.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require moderate to high levels of in-house staffing depending on the level of outside consulting used. Outside consulting should be budgeted at approximately \$20,000 - \$30,000.

Responsibility: Primary responsibility should reside with the IDA with support from Empire State Development.

Recommendation 3: Create a Research and Development Grant Program

Genesee's innovative agribusinesses are a hotbed of entrepreneurial development. However, funding to support early stage product development, technical services, and commercialization is limited. By creating a competitive grant program that enhances existing programs, the County can further benefit from this economic engine. Specifically, this program should support areas of weakness in feasibility research, market studies, engineering support, patent filing, and prototype development. Demonstrated areas of interest, as defined by existing businesses, include alternative energy, process design, waste management, product improvement, and crop research.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require sponsoring a technical review committee and moderate levels of in-house staffing. A pilot budget of \$50,000 should be administered in the first several years to evaluate the utility of the proposed program.

Responsibility: Primary responsibility should reside with Cornell Cooperative Extension (CCE) with support from the IDA.

Recommendation 4: Integrate Business Support Services

Federal, state, and local incentive programs and support systems exist to assist new, expanding, and relocating firms. Genesee County should help farmers to identify and access these programs by providing updated program information through periodic resource mailings, individual counseling, and website.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require moderate levels of in-house staffing to research and disseminate information. A publications budget of \$3,000 should be allocated.

Responsibility: Primary responsibility should reside with Cornell Cooperative Extension with support from the IDA and Genesee Chamber of Commerce.

Recommendation 5: Explore Regional Labor Recruitment Options

Farmers throughout the region express concern over the apparent shortage of qualified farm labor. This issue is not isolated to Genesee County and the solution will not come directly from Genesee County. However, given Genesee County's prominence in the industry, the County should lead a regional, private-public partnership to study labor recruitment efforts. Three options should initially be considered.

- Labor aggregation and transportation from regional low employment centers.
- Labor recruitment from low employment areas such as Puerto Rico and other U.S. Territories.
- Development of INS screening stations to certify employment status.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and should be within the current budget.

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Responsibility: Primary responsibility should reside with IDA with support from the CCE, Genesee Farm Bureau, and Genesee Chamber of Commerce.

Recommendation 6: Study Labor Training Needs

As farm operations in the region continue to transition, employment training will rise in importance. As this trend continues, an assessment of training needs should be conducted on a biannual basis. In addition, the County may wish to consider labor training grants to support the many operations that use private trainers to currently fulfill this need.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require low levels of in-house staffing and a biannual budget of approximately \$1,000 for survey instruments.

Responsibility: Primary responsibility should reside with the Agricultural and Farmland Protection Board with support from the, CCE, Genesee Community College, IDA and Genesee Chamber of Commerce.

Recommendation 7: Prepare SBDC and SCORE Counselors to Work with Farmers

Aggressive regional lending combined with the instability of commodity markets and rapid expansion of unsecured lending (credit card/revolving credit) may cause near-term farm liquidity problems. As a result, Small Business Development Center (SBDC) and Service Corps or Retired Executives (SCORE) counselors should be briefed on issues of farm debt workouts and other farm support issues.

Priority Level 2: Begin in program year 2 or 3.

Cost Considerations: This recommendation would require low levels of in-house staffing and a budget of approximately \$1,000 for materials.

Responsibility: Primary responsibility should reside with CCE with support from the IDA, New York Farm Net, New York Farm Link, local creditors, and MyVesta.

Recommendation 8: Support Leadership Development

The success of Genesee's agricultural industry is a direct function of its exemplary agricultural leadership. Maintaining the quality of leadership and refreshing it with new leaders is critical to continued success. It is recommended that the County support, through scholarships, leadership training while providing continued opportunities for young leaders to serve the industry.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation will require approximately \$4,000 in annual appropriations.

Responsibility: Primary responsibility should reside with the Agricultural and Farmland Protection Board.

Recommendation 9: Support Improvements to Rural Utilities

Changes in technology and operational scale are heightening grower awareness of deficiencies in rural utilities. Specific limiting factors are the quality and cost of electric

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service and the unavailability of high speed internet services. The County should support private and public sector efforts to improve these services.

Priority Level 3: Begin program in year 3 through 5.

Cost Considerations: This recommendation would require a minimum level of in-house staffing.

Responsibility: Responsibility for advocacy rests with County Planning, IDA, and CCE.

Recommendation 10: Study Water Use Issues

In some areas of the county, farmers are experiencing decreases in water quality as well as increasing competition for ground and surface water resources making water a limiting production factor in the future. Increased pressure on water resources may compromise both the quantity and quality of the resource. Expansion and concentration of agricultural enterprises will also increase the need to access this resource, thus necessitating the need for a water study.

Priority Level 3: Begin program in year 3 through 5.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and a budget of approximately \$30,000 - \$40,000 for hydrology engineering services.

Responsibility: Responsibility for conducting the study should rest with County Planning.

Recommendation 11: Seek State Support for a Regulatory Impact Review

Recent and dramatic changes in federal and state regulations have significant impact on farm viability. Many of these impacts are not clearly understood, though their impact is considered significant by the industry. Genesee County along with other Western New York jurisdiction should seek state funding for a review of key policies and development of a regulatory clearinghouse. A farm advisory group should be formed to determine which regulations to review; however, environmental, labor, health, trade policy are likely research candidates.

Priority Level 3: Begin program in year 3 through 5.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and a budget of approximately \$25,000 - \$50,000 for technical support.

Responsibility: Responsibility for conducting the study should rest with the IDA since the analysis will focus on economic impacts.

BUSINESS DEVELOPMENT

Ten-Year Objective

Genesee County farmers will have access to world class operational support, training, and financing to maintain and nurture continued economic viability.

Five-Year Action Plan

Recommendation 1: Conduct Business Management Training

High quality business and financial management skills are crucial to the long-term success of the region's farms. Specifically, middle and senior management skills should be supported through aggressive use of structured, targeted seminars; roundtables; and distance learning protocols. The County may also wish to explore the possibility of making a satellite location available to a regional University for the purpose of periodically running an executive MBA program for agribusinesses.

In an effort to support these training initiatives, the County, lead by Cornell Cooperative Extension and the Genesee Community College, should consider partnering with professional societies and regional universities to offer the following training:

- Labor management and recruitment,
- Communications,
- Capital markets and finance,
- Marketing & sales,
- Public policy & advocacy,
- Transition planning,
- Risk management, and
- Negotiations.

Priority Level 1: Open an immediate dialogue between senior managers and responsible agencies to verify need. Begin programs in the first two program years.

Cost Considerations: Services should be offered on a cost recovery basis.

Responsibility: Cornell Cooperative Extension and Genesee Community College.

Recommendation 2: Develop Industry Specific Short Courses

Genesee County farmers indicated that properly designed and delivered educational opportunities are not readily available in the region. In fact, many indicated a readiness to pay appropriately higher training and education fees to access such courses.

Therefore, it is recommended that a dialogue with industry leaders, agricultural educators, and other service providers be started to identify the training needs of the industry, such as the following:

- Hedging strategies,
- Labor management,
- NxLevel Agricultural Entrepreneurship Training (Cornell),
- Computer skills,
- Web development,
- HACCP in dairy and vegetable operations,
- Speaking and understanding foreign languages on the farm,
- Estate planning, and
- Conducting market research.

Genesee County: Agricultural Development Plan

Genesee Community College and Cornell Cooperative Extension should work together to fulfill the continuing education and training needs of the community. Together, these organizations must commit to an industry that undergoes constant change and take the necessary steps to participate in upgrading the potential for entrepreneurial success.

Priority Level 1: Immediate action in early program years.

Cost Considerations: Services should be offered on a cost recovery basis.

Responsibility: Cornell Cooperative Extension and Genesee Community College (GCC).

Recommendation 3: Identify and Access Product Development Resources

A significant number of Genesee farms are engaged in or considering specific product development initiatives. Many of these initiatives are specific to value-added food products. The County should assist this process by identifying a network of food technologists, nutritional consultants, engineers, marketers, financiers, and others that can professionally support this trend. Speakers should be identified for quarterly brown bag lunches focusing on particular issues of products development, launch, distribution, etc.

Priority Level 1: Immediate action in early program years.

Cost Considerations: Program would use limited in-house resources to identify and establish a network.

Responsibility: Cornell Cooperative Extension and IDA.

Recommendation 4: Study and Improve Production Service Response

The most common theme among Genesee farmers is the lack of responsiveness/relevance of Cornell University/Regional level production support. In fact, many farmers questioned the value of continued County funding of University support given the fact that most farmers have turned to private consultants to fill this need. This issue should be examined by the local association and a recommendation be made to the County legislature for improving the relationship or reprogramming funds to other agricultural programs.

It is important to note that county staff is held in high regard by the agricultural community.

Priority Level 1: Immediate action in early program years.

Cost Considerations: The County should allocate \$5,000 to conduct a blind survey of farmers using an outside polling organization such as the New York Agricultural Statistics Service. In-house staff and the association board should use existing resources to determine recommendations.

Responsibility: Cornell Cooperative Extension.

Recommendation 5: Engage a Grant Writer

Encouraging innovation at all levels of government and industry is important to long-term success in the County. Innovation requires funding from non-traditional sources. These opportunities are available to local governments and individual farmers through foundation, federal, state, and local level funding programs. Success in obtaining these funds is generally enhanced by using the services of a professional grant writer. It is

Genesee County: Agricultural Development Plan

suggested that the County negotiate a set rate with a professional agricultural grant writer to perform these services for farmers and agribusinesses.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: Program would use limited in-house resources to negotiate grant writing rates and approximately \$500 to advertise services.

Responsibility: Cornell Cooperative Extension.

Recommendation 6: Provide Individual Counseling

Most farmers felt that the industry could benefit from access to qualified business planning and consulting resources. While most of the required private professional resources exist in Genesee, access to a different level of services may benefit those farmers who can not articulate their need for or even afford professional services. Therefore, peer mentors, SCORE, and SBDC counselors should be specifically trained to provide business development services and professional service network access to the agricultural industry. Such a program should be jointly directed by Cornell Cooperative Extension (CCE) and the IDA.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and should be within the current budget.

Responsibility: CCE and IDA.

PLANNING AND POLICY

Ten-Year Objective

Genesee County, towns, and incorporated municipalities should coordinate all policy and planning efforts to support the County's number one industry, agriculture. These efforts should be formally adopted in all relevant County plans. Furthermore, the County recognizes that policies set outside of its boundaries, whether at the regional or state level, can have profound impacts within the County. Therefore, the County should support stronger regional planning efforts.

Five-Year Action Plan

Recommendation 1: Integrate County Plans, Policies, and Programs

Genesee County and numerous towns have recently engaged in or are preparing to engage in planning efforts. It is critical for the success of any county level programs that these policies be integrated or at least compatible in the foremost. This will require that County Planning actively educate and re-educate key policy makers and periodically cross reference planning documents. This policy should extend to economic development programming, infrastructure planning, zoning

Genesee County: Agricultural Development Plan

requests, and many other public sector issues. The study team believes that the underlying policy document should be the County's Smart Growth Plan.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require moderate levels of in-house staffing.

Responsibility: Primary responsibility rests with the Department of Planning and the Agricultural and Farmland Protection Board.

Recommendation 2: Direct Consistent and Supportive Land-Use Policies

As Genesee County agriculture continues its current transformation, it will be important for the County and each town to support its growth through land-use policy and planning. The County should actively engage all jurisdictions in this effort. The precedent is currently being developed through Smart Growth planning and the county water plan. This trend should be supported through improved comprehensive planning and policy research investigating such issues as incentive zoning, agricultural production zoning, and amendments to the special exceptions process (use of performance criteria).

Priority Level 1: Immediate and ongoing.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and should be within the current budget.

Responsibility: Department of Planning and the Agricultural and Farmland Protection Board.

Recommendation 3: Advocate for Appropriate Infrastructure Development

Farmers in Genesee County are focused on two broad concerns regarding infrastructure development depending on their geography. These concerns are public utilities and traffic patterns. While most growers do not suffer direct and immediate consequences from these, many are concerned that they will become a significant impediment to conducting business operations and expansion. Of primary concern are the impact of improvements on land-value and the ability to access transportation infrastructure. The Department of Planning and the Agricultural and Farmland Protection Board should form an infrastructure study group to review the effects of current and expected improvements on the agricultural industry. Following this analysis, the committee should develop a white paper to assist the County and towns in planning improvements.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require moderate levels of in-house staffing.

Responsibility: Department of Planning and the Agricultural and Farmland Protection Board.

Recommendation 4: Study Funding Mechanisms

If the County is to meet the objectives of the Agricultural and Farmland Protection Plan, it must find a means to financially support this plan beyond

Genesee County: Agricultural Development Plan

existing revenues and grant funding programs. Therefore, the County should begin an effort to create specific revenue streams in support of these programs. In addition, the County should be thoughtful about leveraging its existing and future revenues with grant resources at the state, federal, and foundation levels. The study team recommends that the County study the following revenue options:

1. Methods that capture revenue from transient populations.
 - a. Amusement taxes/entertainment fees targeted at large tourist venues.
 - b. Fees targeting regional communications infrastructure such as cellular taxes.
2. Methods that assess costs to new development
 - a. Agricultural land transfer tax paid for land removed from agricultural production.
 - b. Development mitigation fees.
 - c. Water and sewer assessments for new developments outside of smart growth areas.
 - d. Agricultural land preservation fee.
3. General revenue sources.
 - a. Sales tax redistribution.
 - b. Real estate transfer tax.
 - c. Incentive zoning.
 - d. Dedicated property tax assessment.
4. Other considerations
 - a. Tax abatement.

It is important to note that most communities, after being given the opportunity to study the economic, environmental, and social values of having a viable agricultural industry, are willing to dedicate, by referendum, discreet revenues to agricultural preservation and development efforts. Also, a combination of sources may be necessary to accomplish the goals of the plan.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation requires significant in-house resources and a possible series of fiscal impact studies. Costs are estimated between \$50,000 and \$150,000 to run various revenue scenarios and develop legislative support information.

Responsibility: Primary responsibility resides with the Department of Planning with support provided by the County Assessors Office, Cornell Cooperative Extension and the IDA.

Recommendation 5: Accommodate Labor Housing

Labor is one of the limiting factors in continuing agricultural industry expansion, especially as it relates to vegetable production. One of the components restricting labor is the lack of availability of migrant labor housing. The County should

Genesee County: Agricultural Development Plan

support local zoning that permits higher density labor housing in proximity to consumer services and existing infrastructure.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require moderate levels of in-house staffing.

Responsibility: Department of Planning and the Agricultural and Farmland Protection Board.

Recommendation 6: Encourage Regional Planning and Cooperation

Genesee County does not exist in a vacuum and the agricultural industry does not exist only within the context of Genesee's political boundaries. Regional development trends, consolidation of land ownership, changes to neighboring jurisdictions' zoning ordinances, economic development incentives, and sprawl from regional employment centers can and is impacting the County. Genesee should actively encourage its neighbors to engage in a continuing regional dialogue managing this process. This will help Genesee manage change and in some cases will promote regional programs thus reducing the cost to Genesee County.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and should be within the current budget.

Responsibility: Department of Planning, CCE and IDA.

Recommendation 7: Advocate Increases in State Purchase of Development Rights (PDR) Funding

Despite the fact that Genesee is not under tremendous conversion pressure, farmers realize that the pressure to develop is evident in surrounding jurisdictions. In fact, given the large land holdings of individuals in Genesee County, significant development pressure could surface almost instantaneously. In light of this, the County should advocate increases in state funding to facilitate the County's ability to react to these expected changes. Once the County has established a program, increased state funding will enhance its viability. *Note: Farmers view PDR as alternative financing method.*

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and should be within the current budget.

Responsibility: County Planning and CCE.

WORK FORCE DEVELOPMENT

Ten-Year Objective

Develop innovative programs to address fundamental issues of labor supply, regulation, training, and employment benefits.

Five-Year Action Plan

Recommendation 1: Conduct Regulatory Compliance Workshops

Complying with personnel laws, labor housing, and hiring immigrant labor are three troublesome issues addressed by farm operators. Currently, fear of the regulatory structure is a significant barrier to full employment of the available labor pool. Increasing the working knowledge of these businesses through specialized short courses would reduce many of these burdens.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require low to moderate levels of in-house staffing and a budget of approximately \$2,000 - \$3,000 for providing technical manuals and program facilitators.

Responsibility: CCE and GCC.

Recommendation 2: Advocate for Improved Secondary Education

Part of the farm labor shortage includes access to a skilled, local labor force. This labor force was formerly trained by the secondary education system. In the last decade and a half, farmers have seen this source of labor shrink precipitously. The County should encourage the Board of Education to support specific vocational training in support of the local agricultural base. In addition, the school systems' guidance counselors should be trained on the opportunities available to students, both Regents' scholars and BOCES students, in modern agriculture.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require low to moderate levels of in-house staffing and a budget of approximately \$3,000 - \$5,000 for providing training materials to counselors.

Responsibility: Primary responsibility should rest with CCE with support from the Chamber of Commerce.

Recommendation 3: Develop Distance Learning Modules

New entrants to the labor force, especially non-native English speaking populations, may need additional training resources delivered at the work place on an as needed basis. Developing specific distance learning courses for these individuals in English and foreign language modules will assist growers and manufacturers and may provide a revenue generating opportunity. Early modules may include:

Genesee County: Agricultural Development Plan

- Basic English for farm labor,
- Basic Spanish for labor managers,
- Licensing training (i.e., applicators licensing),
- Plant and insect identification, and
- Post harvest handling.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require high levels of in-house staffing and significant development resources which may not be recovered through product sales. A development budget of \$25,000 should be considered.

Responsibility: CCE, BOCES, and GCC.

Recommendation 4: Open Regional Dialogue on Management Recruitment

Farmers and agribusinesses throughout the region complain about the difficulty of recruiting and retaining qualified management. This is a limiting growth factor and may cause some firms to relocate instead of expanding operations locally. This seems to be an industry-wide issue and should be addressed economy-wide.

Priority Level 2: Begin in year 2 or 3.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and should be within the current budget.

Responsibility: CCE and IDA.

PUBLIC OUTREACH AND EDUCATION

Ten-Year Objective

Develop innovative programs to address appropriate opportunities for education and training for farm and non-farm agricultural constituents focused on increasing public awareness and support for agriculture, Genesee's number one industry.

Five-Year Action Plan

Recommendation 1: Expand Existing Programs to Educate Policy Makers and the General Public

Genesee County through Cornell Cooperative Extension and the Chamber of Commerce currently provides exemplary public outreach and education. However, the non-farm public continues to expand faster than the farming public. Increasing the frequency of contact with policy makers and the public, especially school aged children, will help set the conditions for a growing appreciation of the agricultural industry. It is recommended that Cornell Cooperative Extension expand its in-school efforts to target high school aged students. Additionally, Cornell and the Chamber of Commerce should undertake a periodic policy memorandum to keep policy makers updated on agricultural issues.

Priority Level 1: Immediate action in early program years.

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Cost Considerations: This recommendation would require high levels of in-house staffing and a program budget of approximately \$10,000. Consideration should be given to grant resources and program sponsorships.

Responsibility: CCE and the Chamber of Commerce.

Recommendation 2: Conduct Advanced Training in Economic Development and Land-Use Planning

Policy makers and public employees throughout the County and towns have varying levels of understanding about economic development and land-use. Prior to seeking significant, long-term program support for Agricultural and Farmland Protection Plan, it is recommended that a concerted effort to educate local leaders be undertaken.

Specifically, the study team recommends conducting a one day to one and half day training seminar using subject specialists to develop a regional understanding of the concepts embodied in this report.

Priority Level 1: Immediate action in year 1.

Cost Considerations: This recommendation would require moderate levels of in-house staffing to organize the conference and a program budget of approximately \$6,000.

Consideration should be given to grant resources and program sponsorships.

Responsibility: Department of Planning, CCE, and IDA.

Recommendation 3: Develop and Promote Public Information Packets

Continued regional development is increasing the potential for land-use conflicts. Education is considered to be the best way to minimize these conflicts. It is recommended that the County develop web based information packets and public service announcements to educate the general public about agricultural practices and the importance of agriculture to the community. Conversely, farmers should be educated about the needs of the non-farm public. Public Service Announcement's should be aired during critical times of the agricultural cycle in the County and the web based information packets should be made available to the general public, specifically to real-estate agents and welcome wagons who may act as a first point of contact with new residents. The first information packet developed should address key elements of the Cost of Community Services Study and Economic Impact Study.

Priority Level 1: Immediate action in year 1.

Cost Considerations: This recommendation would require high levels of in-house staffing during development and a program budget of approximately \$5,000. Consideration should be given to grant resources.

Responsibility: CCE, Department of Planning, and the Chamber of Commerce.

Recommendation 4: Create a Neighbor Relations Program

Conflicting land-uses are becoming a larger issue as new residents move in next to farming operations, especially animal operations. The County should review the neighbor relations program created in the Town of Leroy and adapt elements for a county-wide program. In addition, the County should create a community relations packet for farmers that describes best management strategies for dealing and communicating with non-agricultural neighbors.

Genesee County: Agricultural Development Plan

Priority Level 1: Immediate and ongoing.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and a budget of approximately \$5,000 for the development and printing of informational packages.

Responsibility: CCE and Department of Planning.

Recommendation 5: Develop an Agricultural Highlights Video Series

As Genesee County becomes less agrarian and more transient, it will become increasingly more important to educate residents about the importance and diversity of local agriculture. It is also important to notify local residents about direct marketing activities and novel features of local farms. It is recommended that the County develop a series of short video presentations that focus on the unique aspects of Genesee County agriculture. The video series should be made available through the Cornell website, as well as local cable television and school districts.

Priority Level 3: Begin program in year 3 through 5.

Cost Considerations: This recommendation would require moderate levels of in-house staffing for startup and an annual budget of approximately \$5,000 for video development.

Responsibility: CCE and the public schools.

REGULATION / LEGISLATION

Ten-Year Objective

Develop a methodology to assist farmers in dealing with complex regulatory structures and advocate for legislation that support agricultural development.

The County also recognizes that regulatory compliance in agriculture is complex and many times adversarial. Federal, state and local laws frequently regulate operations with enforcement in the hands of multiple agencies. The County would work with partner agencies to streamline these processes and assist farmers in navigating regulations and advocating for change.

Five-Year Action Plan

Recommendation 1: Create a Regulatory Compliance Bulletin

Farms are highly regulated small businesses that frequently lack the resources to know and/or to understand the regulatory requirements they face. In light of this condition, work should begin to create a regulatory compliance bulletin that describes all federal, state, and local regulations affecting farmers at large. Furthermore, the bulletin should list contact information for key agencies and advocates. The bulletin should be made available online as well as in print.

Priority Level 1: Immediate and ongoing.

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Cost Considerations: This recommendation would require moderate levels of in-house staffing and the support of a policy intern from a regional university. The budget for developing the compliance bulletin would be approximately \$3,000.

Responsibility: Cornell Cooperative Extension, New York Department of Agriculture and Markets, Natural Resource Conservation Service/ Soil and Water District, and others.

Recommendation 2: Advocate for Local Content Legislation

Genesee County should advocate for state legislation that would require state institutions and school systems to purchase dairy products with local dairy content. This would help to maintain the Class I milk utilization rates in the region.

Priority Level 1: Immediate action in early program years.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and a budget of approximately \$1,000 - \$2,000.

Responsibility: IDA and the Chamber of Commerce.

Recommendation 3: Advocate for Improved Energy Policy

Genesee County farmers are exploring numerous alternative energy strategies, but are restricted by Niagra-Mohawk (NIMO) policies that limit the sale of power back into the NIMO grid. In order to open the grid to co-generated power, Genesee County should explore the issues and advocate ways to open the NIMO distribution grid to farm generated power while compensating these power producers at a market rate for conditioned power.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and a budget of approximately \$1,000 - \$2,000.

Responsibility: CCE, IDA and the Chamber of Commerce.

Recommendation 4: Advocate for Country of Origin Labeling

Many states are now considering country of origin labeling on food products. It is recommended that the County should advocate for such labeling requirements. It is anticipated that such labeling, when combined with compliance to the Food Quality Protection Act (FQPA), may increase the demand for local agricultural products.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and a budget of approximately \$1,000 - \$2,000.

Responsibility: IDA and the Chamber of Commerce.

Recommendation 5: Prepare Farmers for Compliance with HACCP, Food Quality Protection Act, and Food Safety Microbial Standards

Implementation of the Food Quality Protection Act (FQPA), Hazard Analysis and Critical Control Point (HACCP) at the farm level, and the promulgation of food microbial safety recommendations will both challenge farmers to change existing practices and provide farmers with a chance to differentiate their products in what is otherwise a strict

Genesee County: Agricultural Development Plan

commodity-marketing environment. The County should sponsor a winter meeting to review elements of the FQPA, HACCP, and other food safety standards and help farmers position products.

Priority Level 2: Begin program in year 2 or 3.

Cost Considerations: This recommendation would require moderate levels of in-house staffing and a budget of approximately \$1,000 to \$2,000.

Responsibility: CCE.

KEY FUNDING / GRANT MAKING ORGANIZATIONS

1. UNITED STATES DEPARTMENT OF AGRICULTURE
 - a. Small Business Innovative Research
 - b. Alternative Agriculture Research and Commercialization
 - c. Sustainable Agriculture Research and Education
 - d. Rural Development – Business and Industry Programs
 - e. Innovative Food and Farming Systems
 - f. Federal-State Market Improvement Program
 - g. Food Assistance and Nutrition Research Program
 - h. Rural Community Development Initiative
 - i. Natural Resource Conservation Service / SWCD
2. United States Department of the Treasury
 - a. Community Development Financial Institution Fund
 - b. Community Development Venture Capital Fund
3. Department of Housing and Urban Development
 - a. JOLE
 - b. Community Development Block Grant
4. New York Department of Agriculture and Markets
 - a. Alternative Energy Pilot Program
 - b. Agricultural Economic Development Grants
5. Empire State Economic Development
 - a. Work Force Training
 - b. Tax Incentives
 - c. Loan Discounts
6. Commodity Associations
 - a. U.S. Soybean Board
 - b. National Corn Growers Association
7. Private Foundations
 - a. Kellogg Foundation
 - b. Philip Morris
 - c. Others – See New York Grant Funder’s Manual
8. Other
 - a. NYSERDA
 - b. Public Utilities
 - c. Financial Institutions
 - d. Business Service Providers
 - e. ACE Net

Genesee County: Agricultural Development Plan

KEY SUPPORT AGENCIES

	Economic Development	Business Development	Planning / Policy	Workforce Development	Public Outreach	Regulation / Legislation
Agricultural Marketing Service, USDA						
Alcohol, Tobacco, & Firearms, Bureau of						
Western New York Vegetable Research Center						
Cable Access						
Commodity Associations						
Cornell Cooperative Extension						
University of Buffalo						
Farm Service Agency, USDA						
Farmers						
Genesee Community College						
Genesee County Legislature						
Genesee County Department of Public Works						
Genesee County Industrial Development Authority						
Genesee County Department of Planning						
Genesee Farm Bureau						
Food and Drug Administration						
Future Farmers of America						
Genesee County Farmland Protection Board						
New York Agri-Development Corporation						
New York Farm Link						
New York FarmNet						
NY Department of Agriculture and Markets						
Empire State Development						
New York Department of Health						
New York Department of Labor						
New York Department of the Environment Conservation						
New York Real Property Services						
Thruway Authority						
New York Legislature						
NY State Energy Research and Development Authority						
NY Office of Science, Technology, & Academic Research						
Natural Resource Conservation Service						
Pamona Grange						
Rural Development, USDA						
Senior Corp of Retired Executives						
Small Business Development Centers						
Soil and Water Conservation Districts						
U. S. Department of Housing and Urban Development						
U.S. Department of Treasury						

Genesee County: Agricultural Development Plan

IMPLEMENTATION TIMELINE

Implementation Timeline					
	Year 1	Year 2	Year 3	Year 4	Year 5
Economic Development					
Recommendation 1	Design & Funding		Implementation		
Recommendation 2	Study	Implementation			
Recommendation 3	Design & Pilot		Implementation		
Recommendation 4	Ongoing				
Recommendation 5	Ongoing				
Recommendation 6			Survey		Survey
Recommendation 7		Training			
Recommendation 8		Ongoing			
Recommendation 9		Ongoing			
Recommendation 10			Study	Implementation	
Recommendation 11			Ongoing		
Business Development					
Recommendation 1	Ongoing				
Recommendation 2	Ongoing				
Recommendation 3	Development	Ongoing			
Recommendation 4	Survey		Survey		Survey
Recommendation 5		Ongoing			
Recommendation 6		Ongoing			
Policy and Planning					
Recommendation 1	Ongoing				
Recommendation 2	Ongoing				
Recommendation 3	Ongoing				
Recommendation 4	Study Issues		Advocacy		
Recommendation 5	Ongoing				
Recommendation 6		Ongoing			
Recommendation 7	Advocacy as Needed				
Work Force Development					
Recommendation 1	Implementation				
Recommendation 2	Ongoing				
Recommendation 3	Design	Distribution			
Recommendation 4			Ongoing		
Public Outreach / Education					
Recommendation 1	Ongoing				
Recommendation 2	Training				
Recommendation 3	Design	Distribution			
Recommendation 4	Design	Distribution			
Recommendation 5			Design	Distribution	
Regulation & Legislation					
Recommendation 1	Design		Update		Update
Recommendation 2	Advocacy as Needed				
Recommendation 3	Advocacy as Needed				
Recommendation 4	Advocacy as Needed				
Recommendation 5		Training			

Legend: Program Operations
Special Notes

CONCLUDING REMARKS

Genesee County remains one of New York's strongest agricultural counties and the industry remains Genesee's largest and most important. Despite this strength, agriculture is in transition. Consolidation, weak commodity markets, changing consumer purchasing patterns, and a burdensome tax structure are major contributing factors. Genesee County must study the opportunities inherent in these changes and plan to capitalize on the offering. Such changes will not come without growing pains. However, once engaged, the industry will be in a better position to succeed in the long-term.

For political and industrial leaders, the charge is to monitor this change and foster the environment for success. The tools to be employed are limited only by intellect and imagination and begin with the implementation of and commitment to a strong economic development strategy.

APPENDICES

Appendix A: Agricultural Trends Profile for Genesee County, New York

Appendix B: Project Contact List

Appendix C: Agricultural Economic Development Case Studies

Appendix D: Industry Practice Summaries

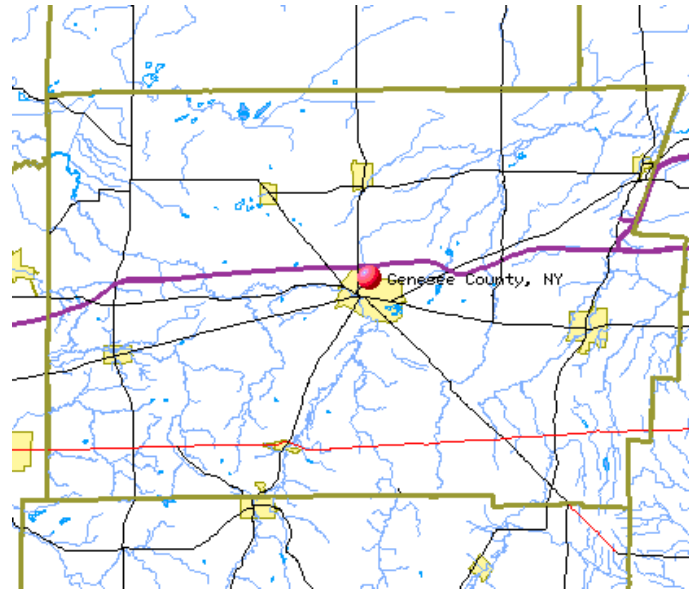
Appendix E: Financial Tools Summary Sheets

Appendix F: Pending Legislation

APPENDIX A:

**AGRICULTURAL TRENDS PROFILE FOR
GENESEE COUNTY, NEW YORK**

Agricultural Trends Profile for Genesee County, New York



Prepared for the
Genesee County Agricultural Task Force

Developed by
Agriculture and Community Development Services Inc.

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Genesee County Agricultural Trends Profile

Introduction

Agriculture in Genesee County is being shaped by a number of trends. Some are specific to the local area while other trends are driven by national and global forces shaping agriculture.

This report provides a barometer on the general health of the County's agricultural industry. As a means of comparison, data and trends from Orleans County, New York and Wyoming County, New York are used as a benchmark. These trends can be used to identify strengths and weaknesses, opportunities and threats in the farming community, as well as serve as a guide for development efforts in the future.

Methods

The methods used to prepare this report are commonly accepted econometric practices. Data were gathered from several federal government sources, including the Census of Agriculture, the Regional Economics Information System (REIS), and County Business Patterns. The data were downloaded from CD-ROM disks or from Internet sources, and imported into Microsoft Excel spreadsheets. Here the data were adjusted for inflation, by inflating the data to recent dollars (usually 1997 or 1998 dollars). In general, the inflator used was the Producer Price Index (PPI). In some cases, where noted, the [Farmers] Prices Received Index (PRI) maintained by the USDA or the Consumer Price Index (CPI) was used.

This trend profile includes an analysis of (1) the financial health of agriculture in Genesee County (for example, sales, expenses and income trends), (2) trends in the structure of agriculture in Genesee County (for example, change in number of farms, types of farms), and (3) an examination of the linkages between agriculture and the balance of Genesee County's economy .

Interpretation Note: Analytical tools chosen from one analyst to another may be different and the resulting data vary. Furthermore, charts and graphs are subject to different interpretations. Care should be taken not to accept this information as absolute truth. Instead, we recommend that this information be used to supplement local stakeholders' observations, provide some new insights, and raise issues for further study.

Summary

Agriculture in Genesee County, New York, is a large and extensive industry consisting of 500 farm enterprises on over 170,000 acres of farmland. In 1997, Genesee County's farm output totaled over \$140 million and employed nearly 1,200 people on the farm. Along with the direct impact to the economy, Genesee's farm economy contributed an additional \$63 million and employed another 900 workers through related industries.

While much of the U.S. farm economy has been adversely impacted by declining real prices, increasing production costs, and dwindling farm incomes, Genesee County's farming sector has largely overcome these pervasive trends. Between 1987 and 1997, real farm receipts in Genesee County increased by \$19 million while expenses increased only \$4 million. As a result, average farm income in Genesee County has increased 130 percent between 1987 and 1997. By comparison, U.S. farmers as a group have seen average farm income increase only 30 percent over this same time period.

However, not all of Genesee County's farming sector remains immune from problems. Dairy farming, in particular, has been adversely impacted by rising costs and declining real milk prices. Since 1987, 35 percent of all Genesee County dairy farms went out of business accounting for half of all farms lost. Some of these dairy farms likely switched to alternative crops. Especially pronounced has been the increase in vegetable production in Genesee County. Between 1987 and 1997, vegetable acreage has increased 40 percent while cash receipts from vegetable sales have increased nearly 70 percent. The shift away from primary commodities like dairy to higher valued products like vegetables has been a primary factor in improved farm profitability for the County. *(continued)*

Summary (continued)

As Genesee County's farming sector evolves away from dairy and towards vegetables this has important impacts for the local service economy. For one, expenditures by the vegetable farming sector tend to be more localized as compared to the dairy farming sector. On average, 44 cents of every dollar spent by the Genesee County vegetable farming sector remains in the County, while 23 cents of every dollar spent by the dairy farming sector remains in Genesee County. This disparity arises from the dairy sector's reliance on feed and feed products (60 percent of expenditures), which is largely imported from outside of the County.

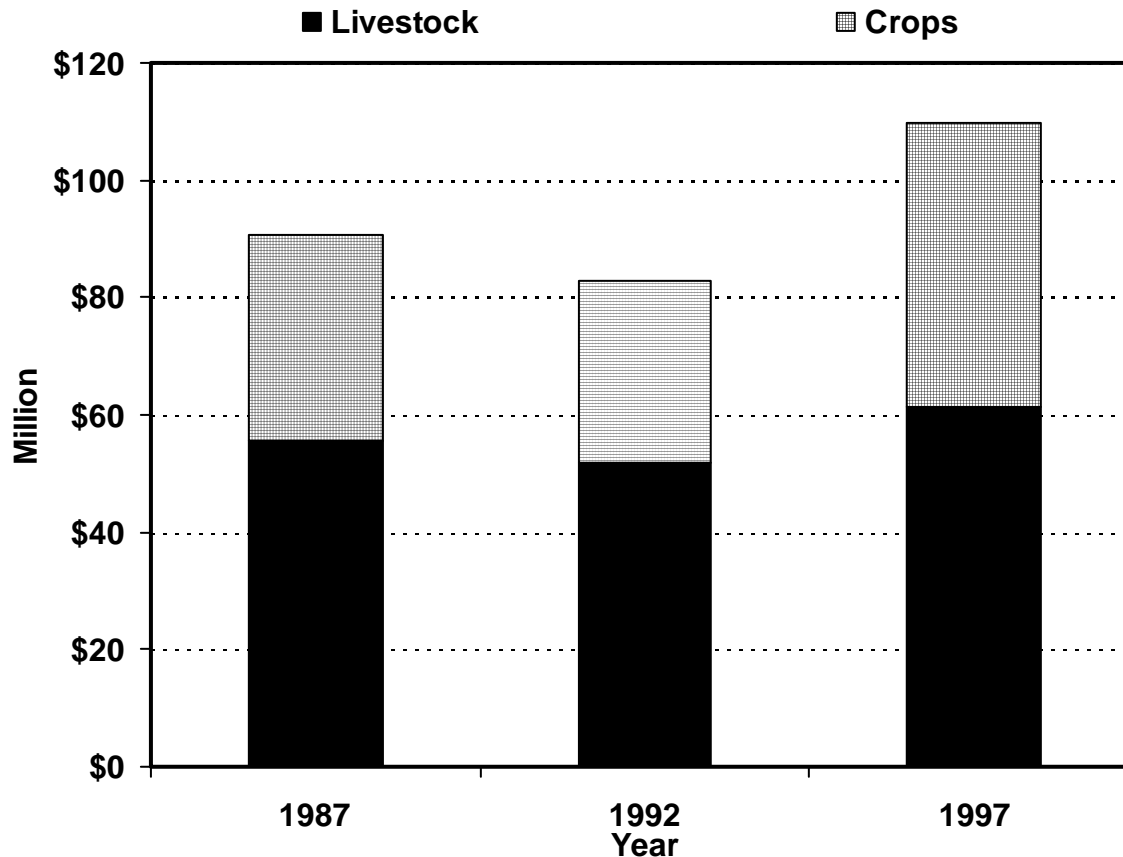
Along with expenditures being more localized from the vegetable farming sector, the demands of the vegetable sector differ significantly from dairy. Vegetable farms rely more on agricultural service firms which provide custom work on pesticide applications. As vegetable production has grown in the County, so too has the number of agricultural service firms – up 40% between 1987 and 1997.

SECTION 1

FINANCIAL HEALTH

Genesee County Gross Farm Sales Rebound in 1997.

Genesee Farm Cash Receipts, 1987-97



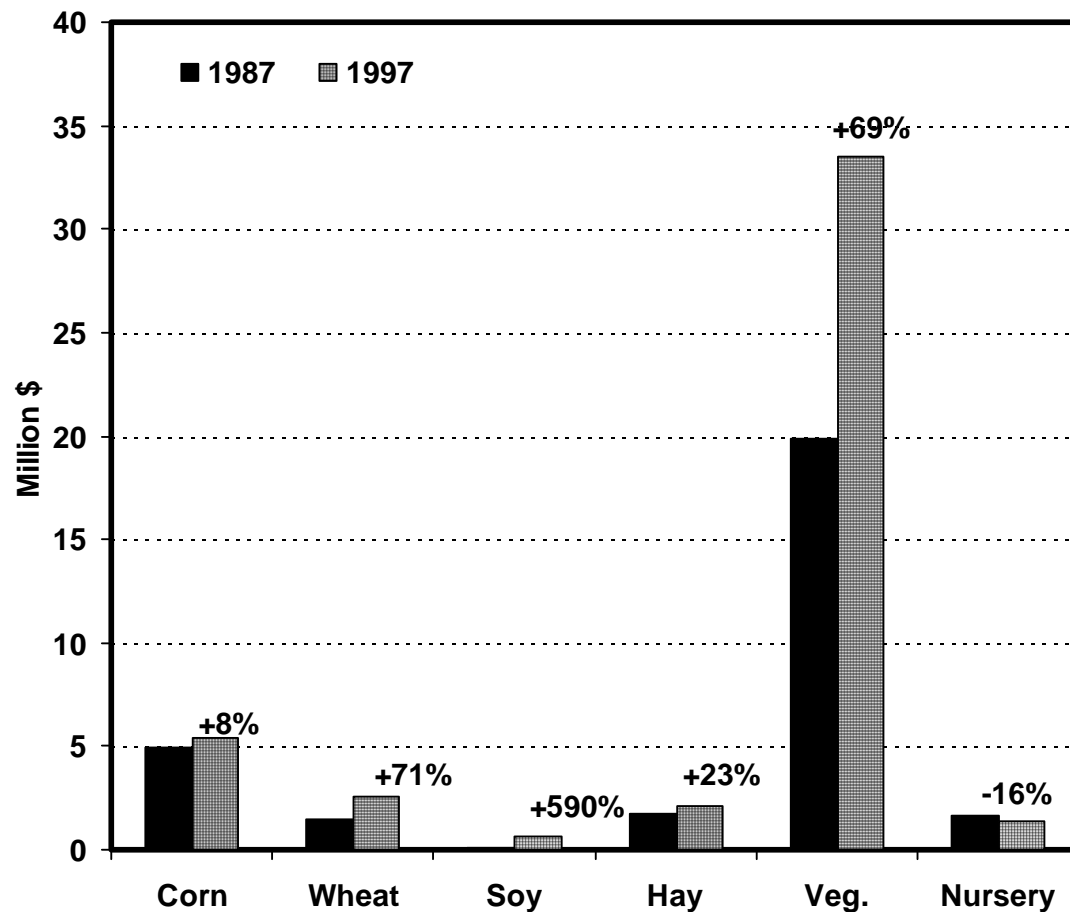
After declining in 1992, real farm sales in Genesee County increased by \$26 million between 1992 and 1997, mostly due to increases in crop sales. Over this time period, real crop sales increased \$16 million while receipts from livestock related products increased \$10 million.

Source: U.S. Census of Agriculture.

Data in 1997 dollars, using Prices Paid by Farmers Index.

Vegetables Drive Growth in Genesee County Crop Receipts.

Crop Receipts for Genesee County, 1987 and 1997.



Receipts from vegetable crops in Genesee County rose \$13 million between 1987 and 1997. Traditional field crops, like corn, wheat and soybeans posted growth, although mostly in wheat and soybeans as farmers planted more acreages in these crops and less in oats. Receipts from greenhouse and nursery crops slipped 16 percent.

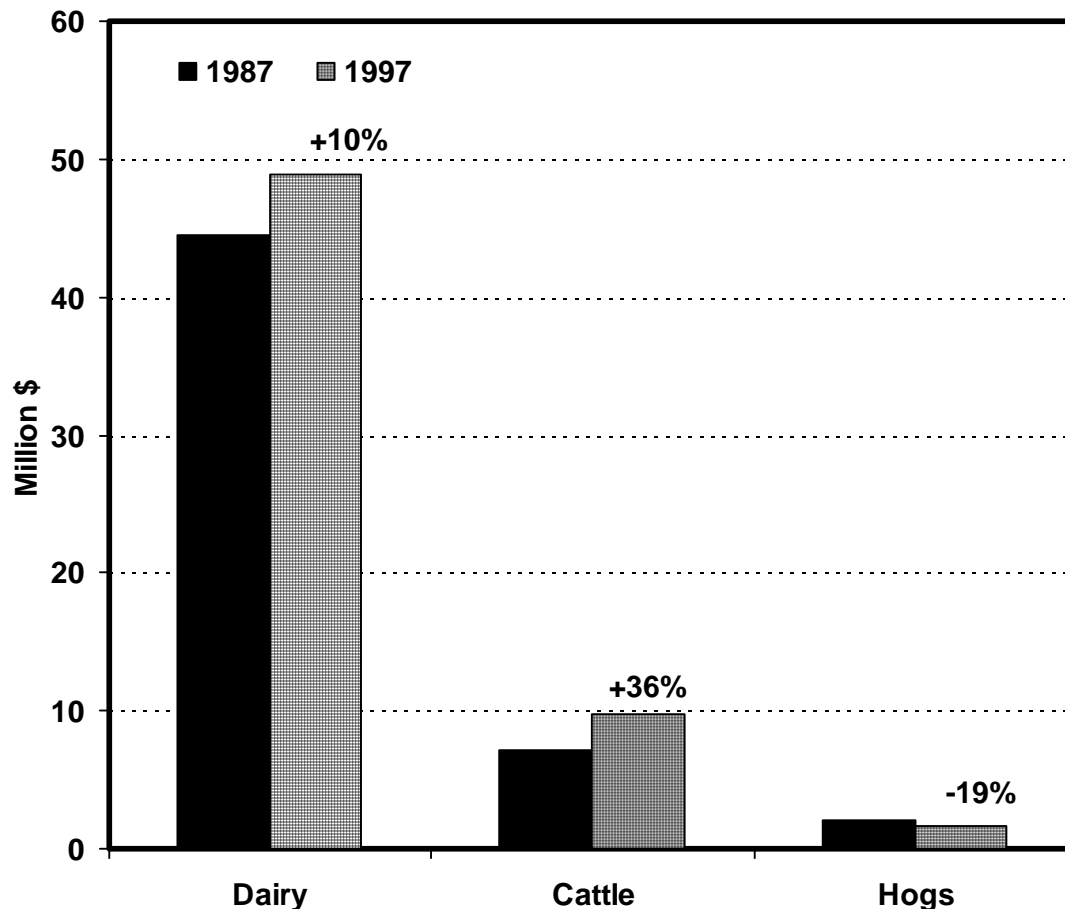
Source: U.S. Census of Agriculture.

Data deflated by the Prices Paid by Farmers Index.

The percent change in crop receipts between 1987 and 1997 is shown on the chart.

Dairy and Cattle Sales Fuel Growth in Livestock Receipts.

Livestock Receipts for Genesee County, 1987 and 1997.



Sales of farm dairy products increased \$4 million or 10 percent between 1987 and 1997 in Genesee County. Cattle sales, although a smaller component of livestock sales, rose nearly \$3 million over this same time period. Sales of hog and pigs fell by 19 percent.

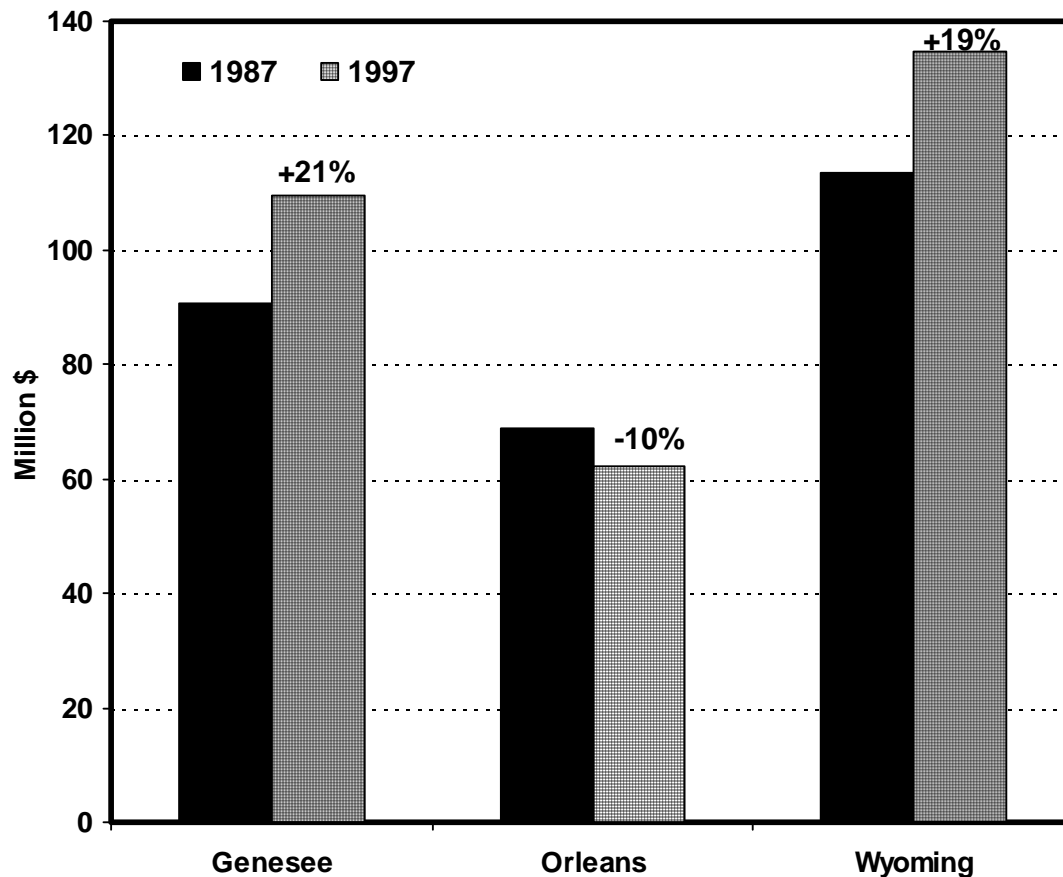
Source: U.S. Census of Agriculture.

Data deflated by the Prices Paid by Farmers Index.

The percent change in livestock receipts between 1987 and 1997 is shown on the chart.

Genesee and Wyoming Counties See Farm Receipts Grow, But In Different Ways.

Farm Receipts for Genesee, Orleans and Wyoming Counties, 1987 and 1997.



While growth in vegetable receipts were largely responsible for the growth in Genesee County farm sales, Wyoming County's primary contributor to growth has been dairy sales. Farm sales in Orleans County have fallen over the last 10 years, mostly due to a drop in dairy sales.

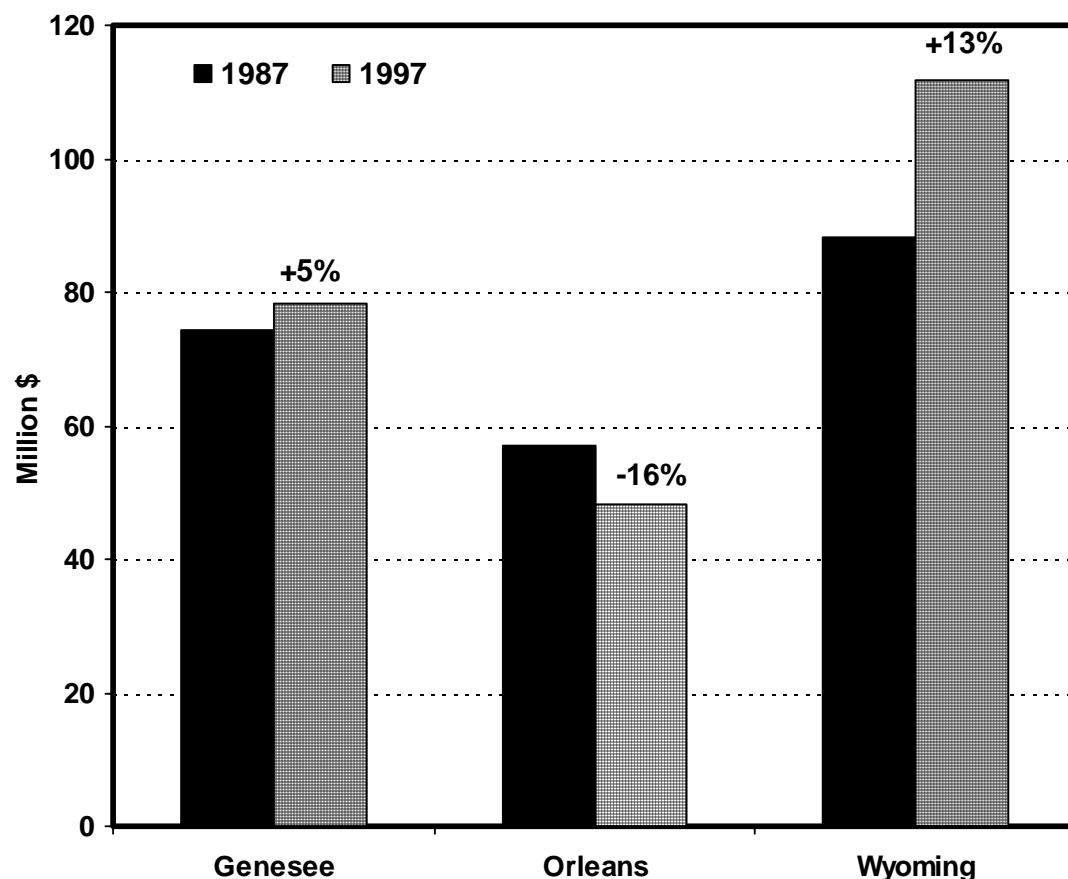
Source: U.S. Census of Agriculture.

Data deflated by the Prices Paid by Farmers Index.

The percent change in farm receipts between 1987 and 1997 is shown on the chart.

Genesee County Farm Expenses Grow Modestly in Relation to Farm Receipts.

Farm Expenses for Genesee, Orleans and Wyoming Counties, 1987 and 1997.



Although Genesee and Wyoming County both experienced 20 percent growth in farm receipts between 1987 and 1997, Genesee County managed to do so with only a 5 percent increase in expenditures. Wyoming County farm expenses rose 13 percent over this same period. Farm profitability, which is the differences between receipts and expenses, rose more in Genesee County than in Wyoming County.

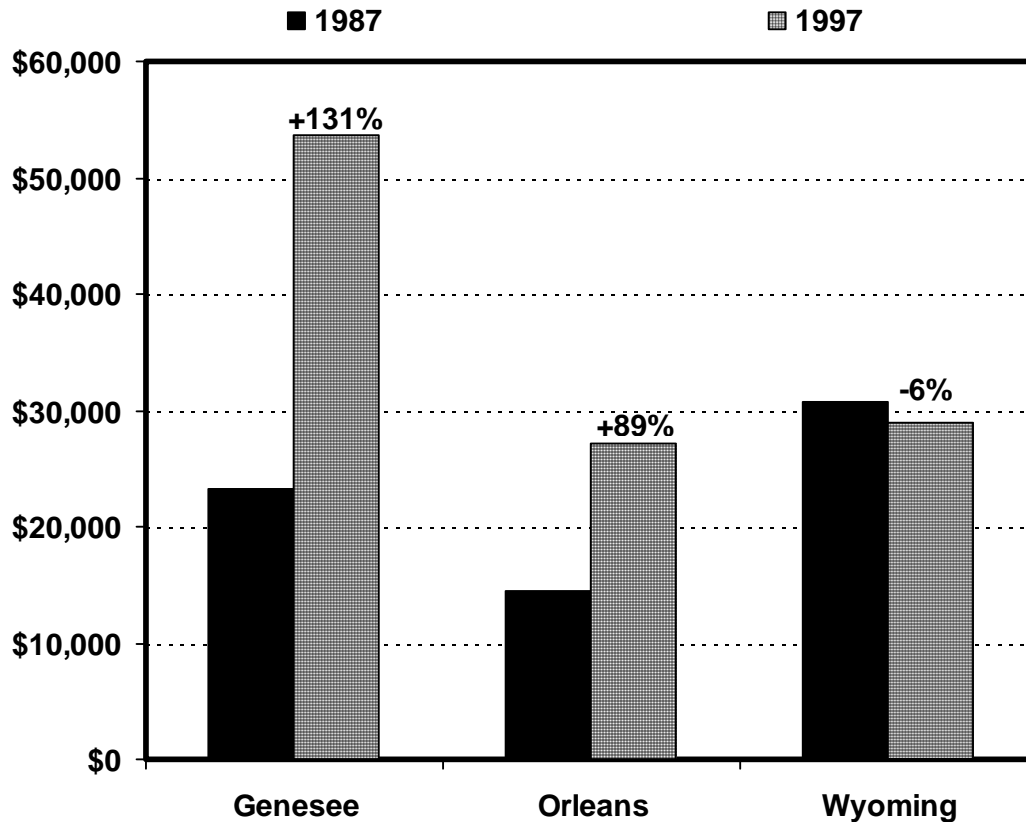
Source: U.S. Census of Agriculture.

Data deflated by the Prices Paid by Farmers Index.

The percent change in farm expenses between 1987 and 1997 is shown on the chart.

Genesee County Farmers Fairing Better Than Orleans and Wyoming Farmers.

Average Farm Income for Genesee, Orleans and Wyoming Counties.



Real farm income in Genesee County more than doubled between 1987 and 1997. While Orleans County also posted impressive growth in net farm income, Wyoming County actually saw farm income slip slightly over the ten-year period.

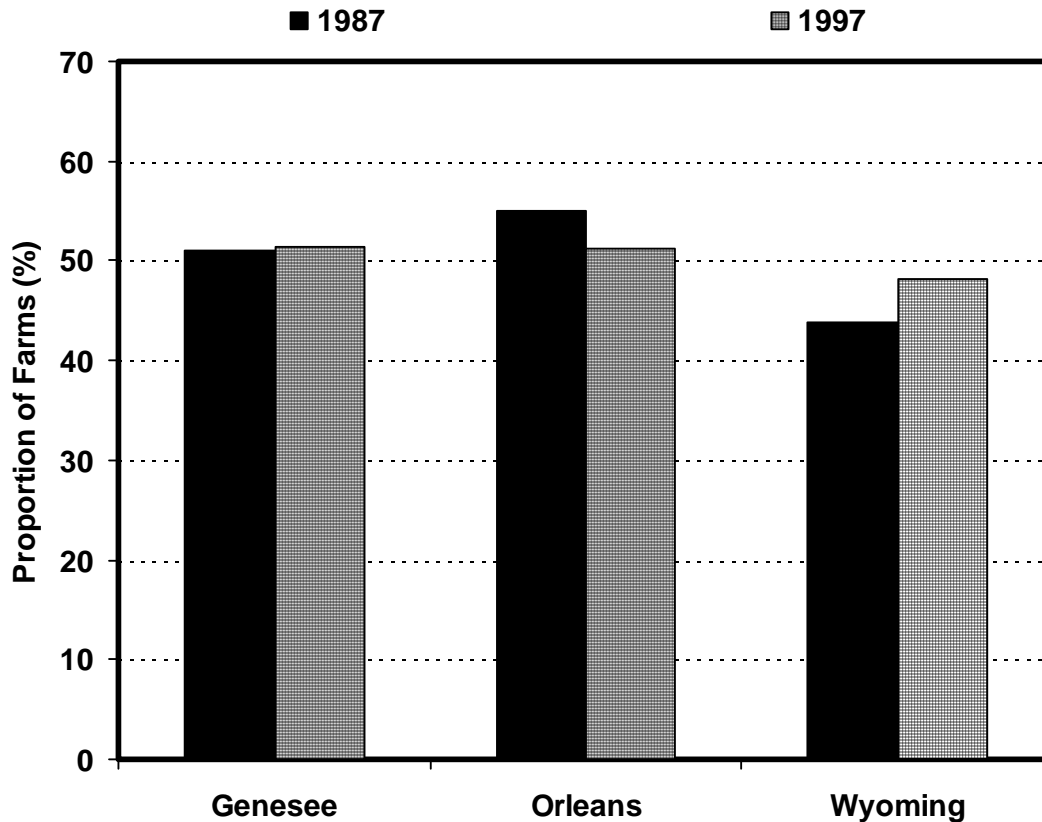
Source: U.S. Census of Agriculture .

Data in 1997 dollars, using Prices Paid by Farmers Index.

The percent change in farm income between 1987 and 1997 is shown on the chart.

Farm Income Strength Keeps Farmers Working on the Farm.

Proportion of Farms with Off-Farm Employment for
Genesee, Orleans and Wyoming Counties.

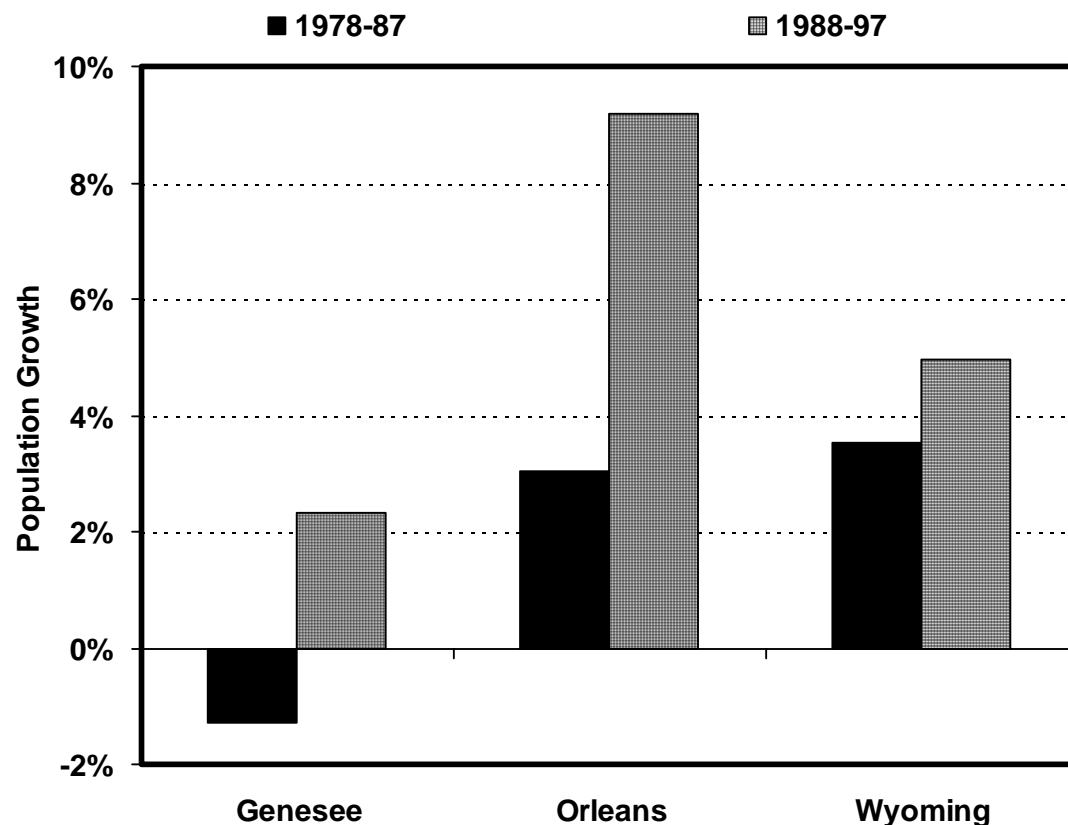


Low farm incomes in Wyoming County forced more farmers to seek off-farm employment. In 1987, 44 percent of Wyoming farmers had off-farm employment and in 1997, that number had grown to nearly 50 percent. Genesee County has managed to keep the proportion of farmers employed off the farm relatively stable at 51 percent, while Orleans County actually had off-farm employment fall from 55 to 51 percent.

Source: U.S. Census of Agriculture .

Genesee County Population Stable Over the Last 20 Years.

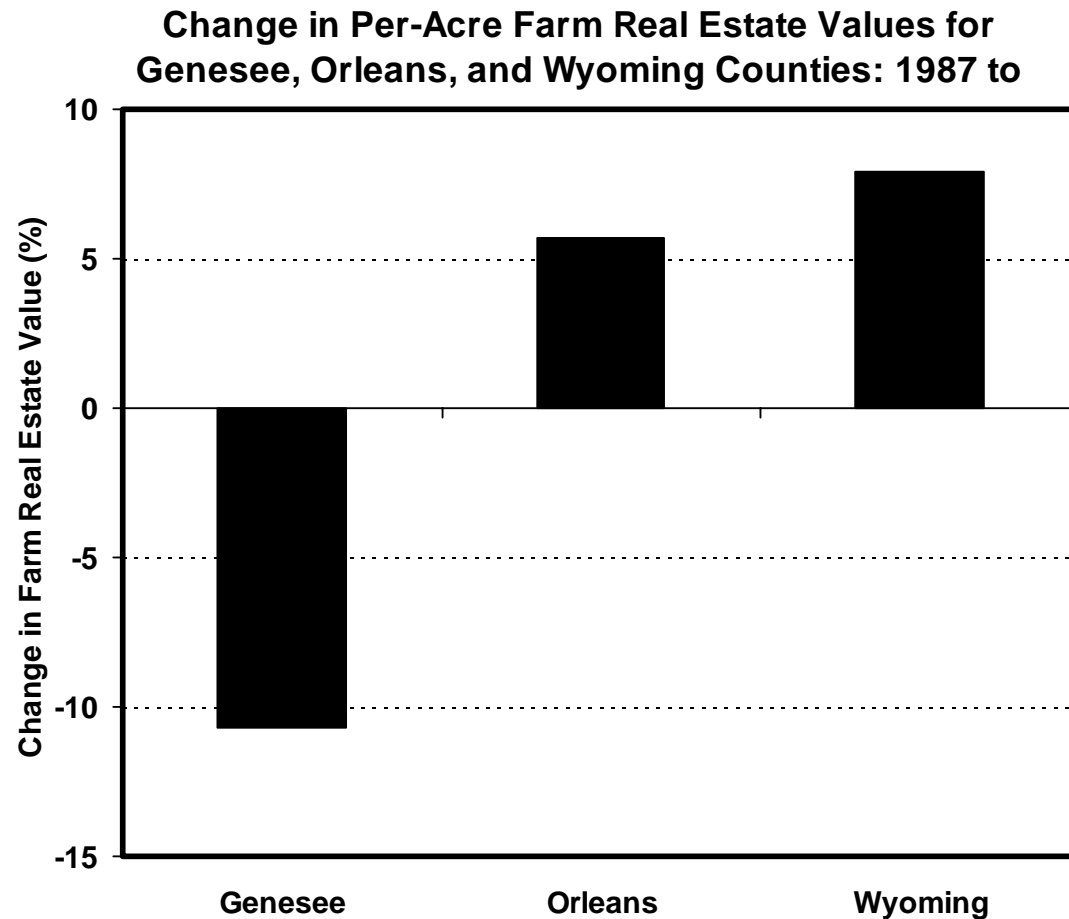
Percent Change in Population for Genesee, Orleans and Wyoming Counties.



Resident populations in Orleans and Wyoming counties have grown faster in the last 10 years. Since 1988, Orleans County's population has increased nearly 10 percent while the population in Wyoming County grew 5 percent. Genesee County's population grew at a moderate pace of only 2 percent over the same ten-year period.

Source: Regional Economic Information System (REIS).

Real Farm Real Estate Values Slide In Genesee County.



Population growth in Orleans and Wyoming counties have caused farm real estate values to increase in the last ten years. Both counties have experienced over 5 percent real growth in farm real estate value over the last 10 years. In Genesee County, however, farm real estate values have slipped by 10 percent in real terms.

Source: U.,S. Census of Agriculture.

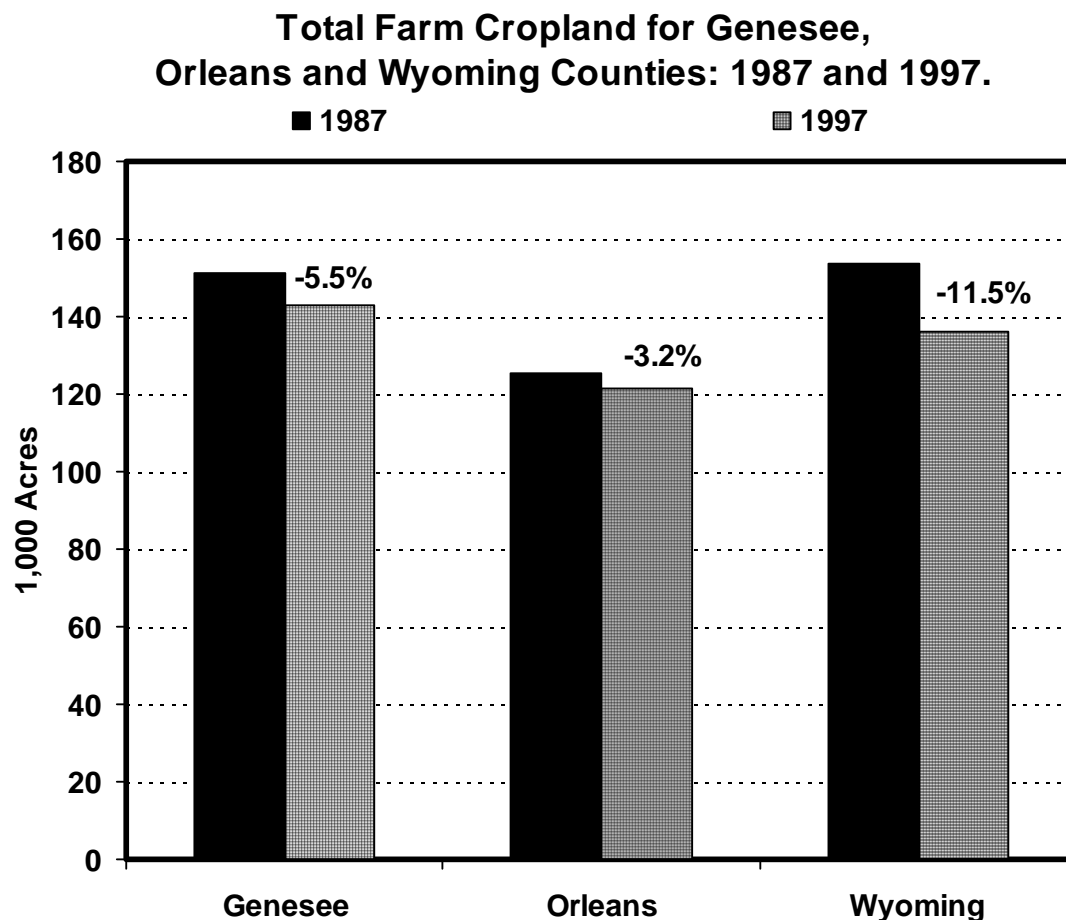
Data deflated by the Prices Paid by Farmers Index.

Per-acre farm real estate values include land and buildings.

SECTION 2

CHARACTERISTICS AND STRUCTURE

Farm Cropland Falls Modestly in Genesee County.

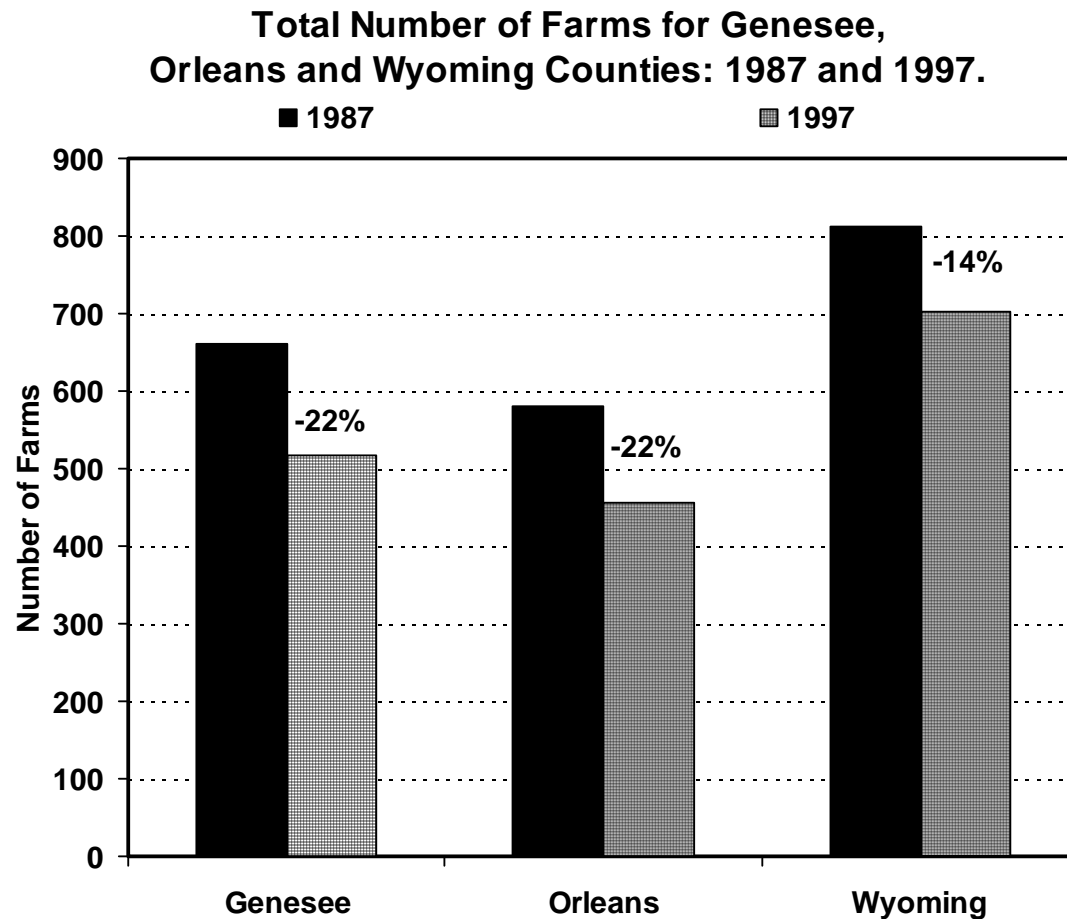


Between 1987 and 1997, Genesee County lost nearly 9,000 acres of cropland or 5.5 percent of the total crop area. By comparison, both Orleans and Wyoming experienced a drop in crop area, although Wyoming County lost nearly 12 percent of its crop area while Orleans crop acreage fell only 3 percent. However, while cropland fell, *harvested* cropland actually increased for Genesee and Orleans counties by over 10,000 acres, suggesting that farmland is being used more intensively.

Source: U.S. Census of Agriculture.

The percent change in total farm cropland between 1997 and 1987 is shown on the chart.

Number of Farms Fall In Last 10 Years.



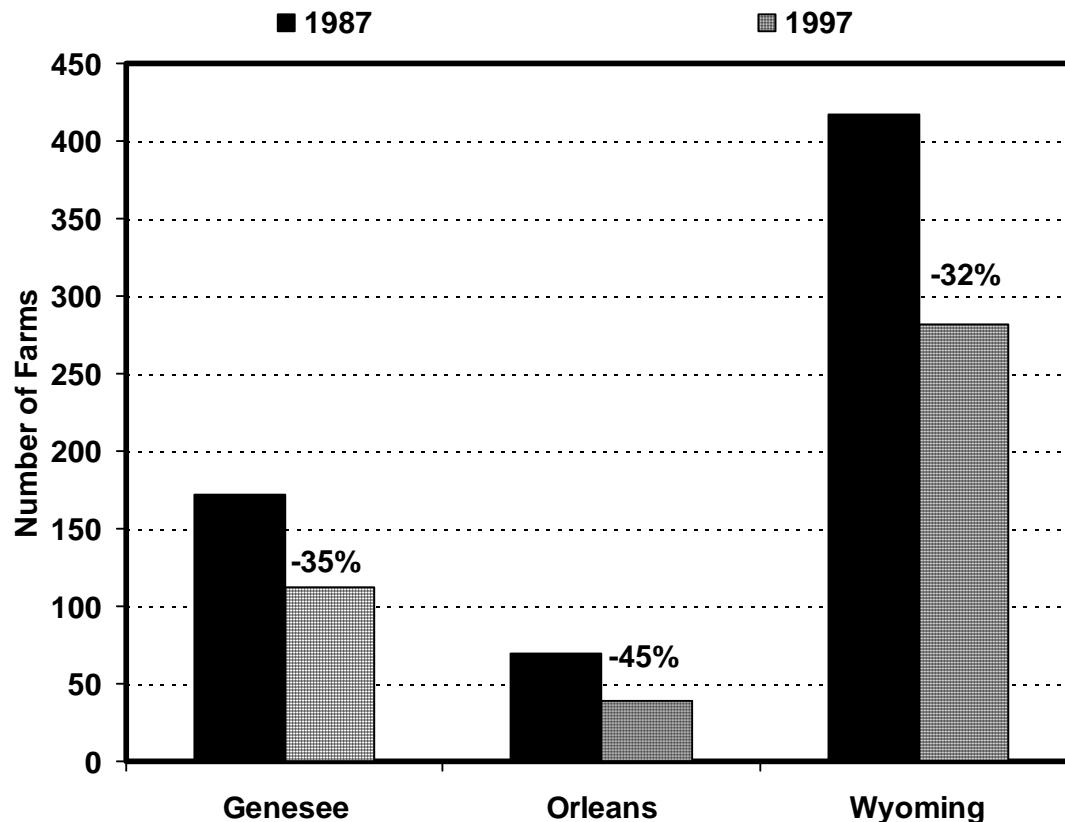
The number of farms in Genesee County declined from 660 in 1987 to 516 farms in 1997. However, 80 percent of the farms that exited the industry did so between 1987 and 1992.

Source: U.S. Census of Agriculture.

The percent change in total farm numbers between 1997 and 1987 is shown on the chart.

Dairy Farm Numbers Plummet.

Total Number of Dairy Farms for Genesee, Orleans, and Wyoming Counties: 1987 and 1997.



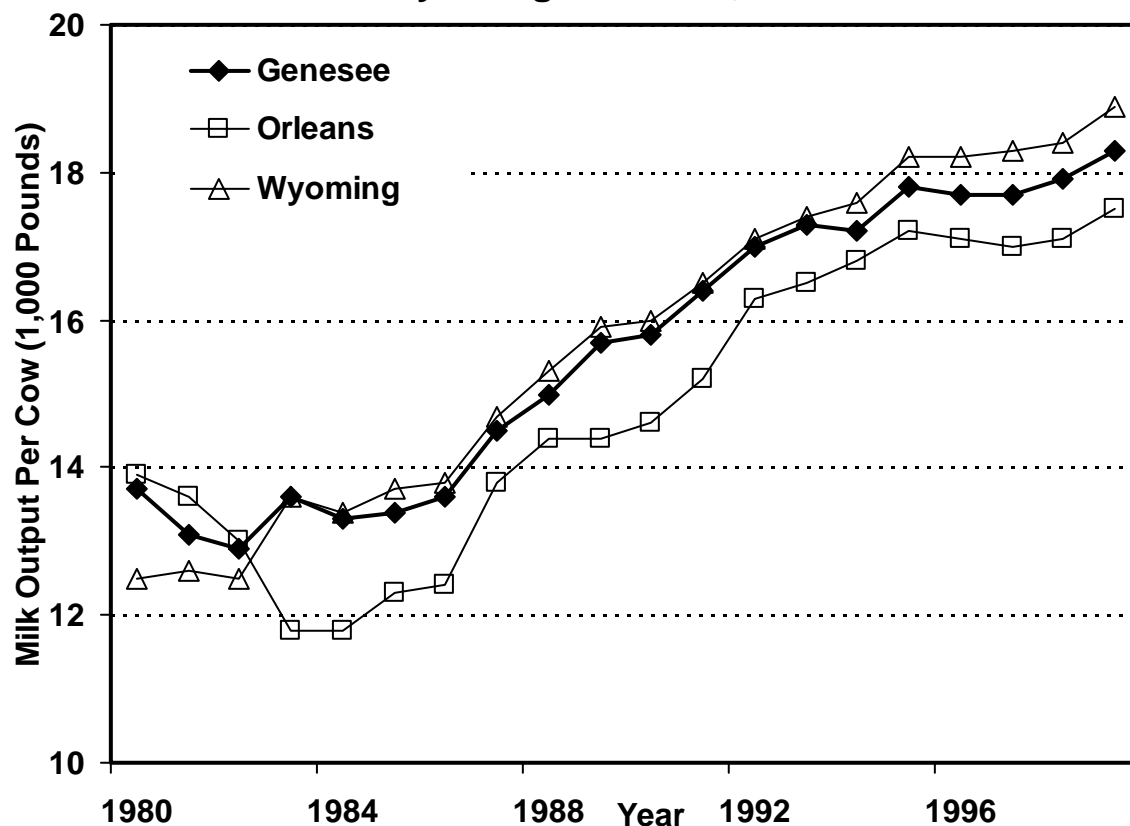
Nearly half of the Genesee County farms that went out of business in the last 10 years were dairy farms. Since 1987, 35 percent of Genesee County dairy farms went out of business, although this is similar in magnitude to the loss in dairy farms seen in Orleans and Wyoming counties.

Source: U.S. Census of Agriculture.

The percent change in the number of dairy farms between 1997 and 1987 is shown on the chart.

Genesee Dairy Productivity Falls Short of Gains Seen in Wyoming County.

Annual Milk Output Per Cow for Genesee, Orleans, and Wyoming Counties, 1980-99.

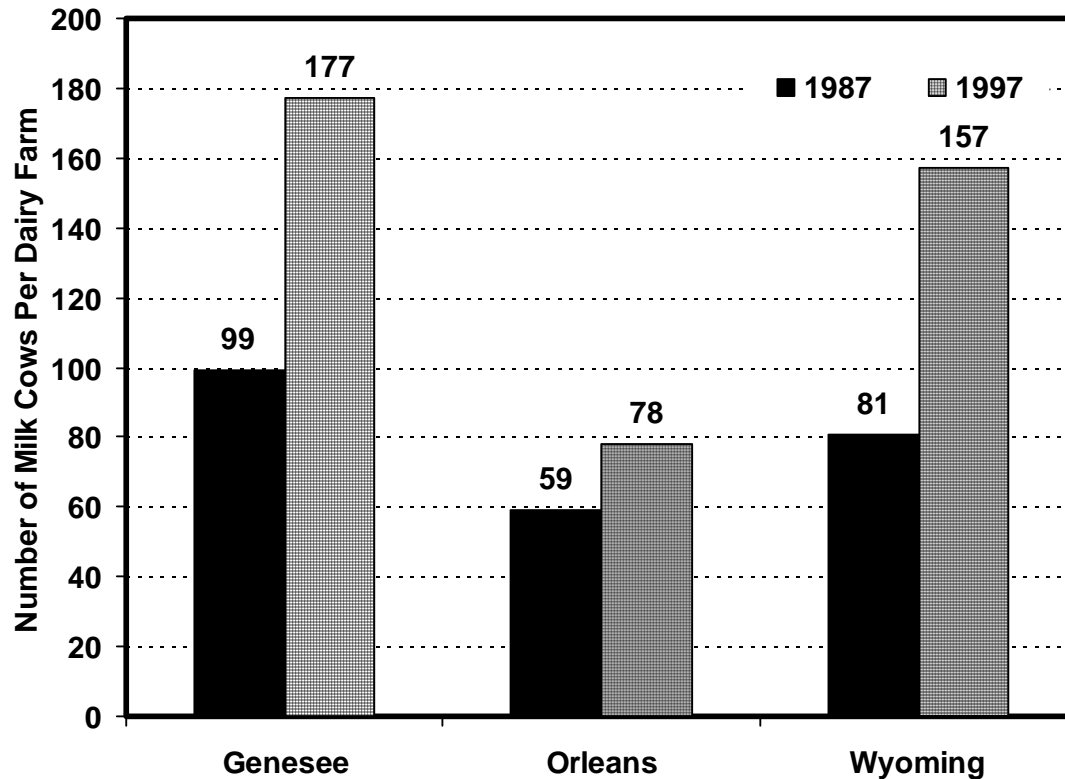


Output per cow increased steadily between 1985 and 1995 in Genesee County, but has remained relatively stable since. Although this trend is similar to what Orleans and Wyoming County experienced, Wyoming county did manage to increase production per cow about 600 pounds per year above Genesee County after having nearly the same productivity in the 1980s and mid 1990s.

Source: USDA – National Agricultural Statistics Service.

Dairy Farm Size Expands in Genesee County.

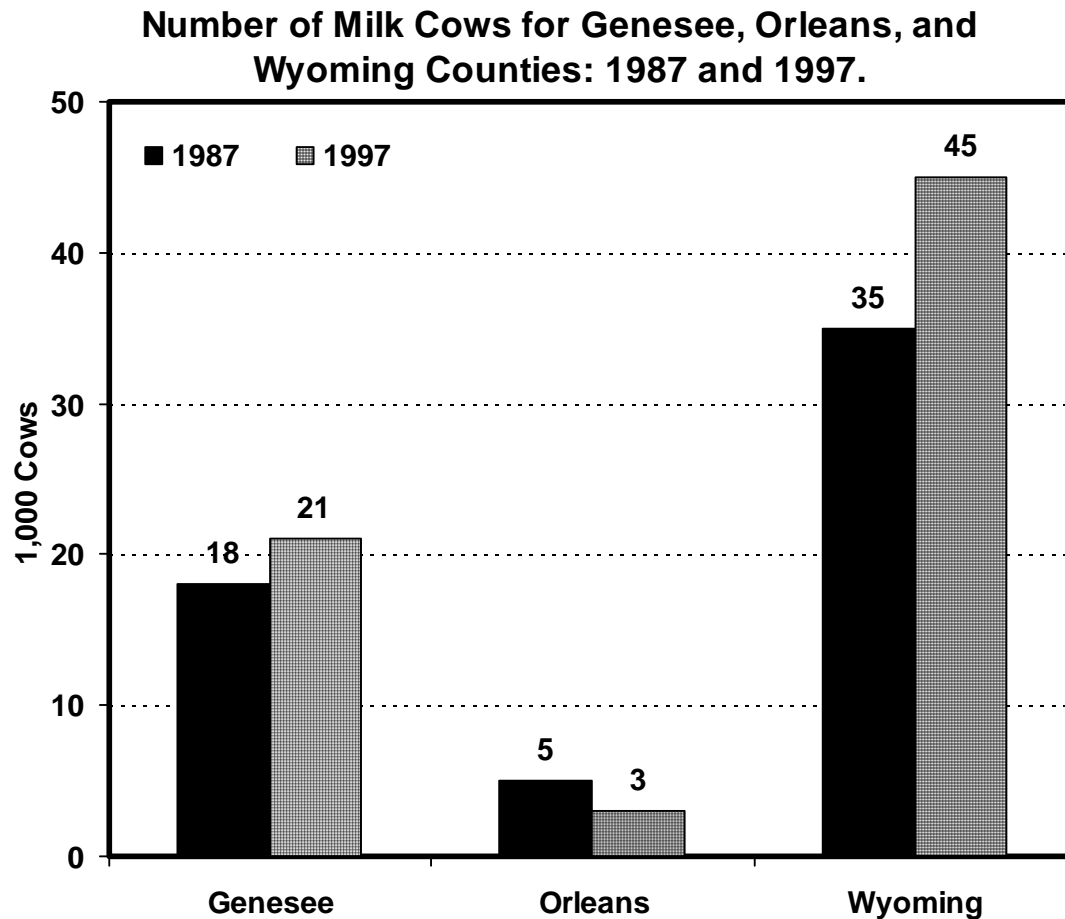
**Average Number of Milk Cows Per Dairy Farm for
Genesee, Orleans, and Wyoming Counties:
1987 and 1997.**



The size of Genesee County dairy farms increased from an average of 99 cows per farm in 1987 to 177 cows per farm in 1997. While similar to the growth in farm size seen in Wyoming County over this time period, Genesee's growth in farm size is well above the growth seen in Orleans County.

Source: U.S. Census of Agriculture.

Dairy Cow Numbers Inch Higher in Genesee County.

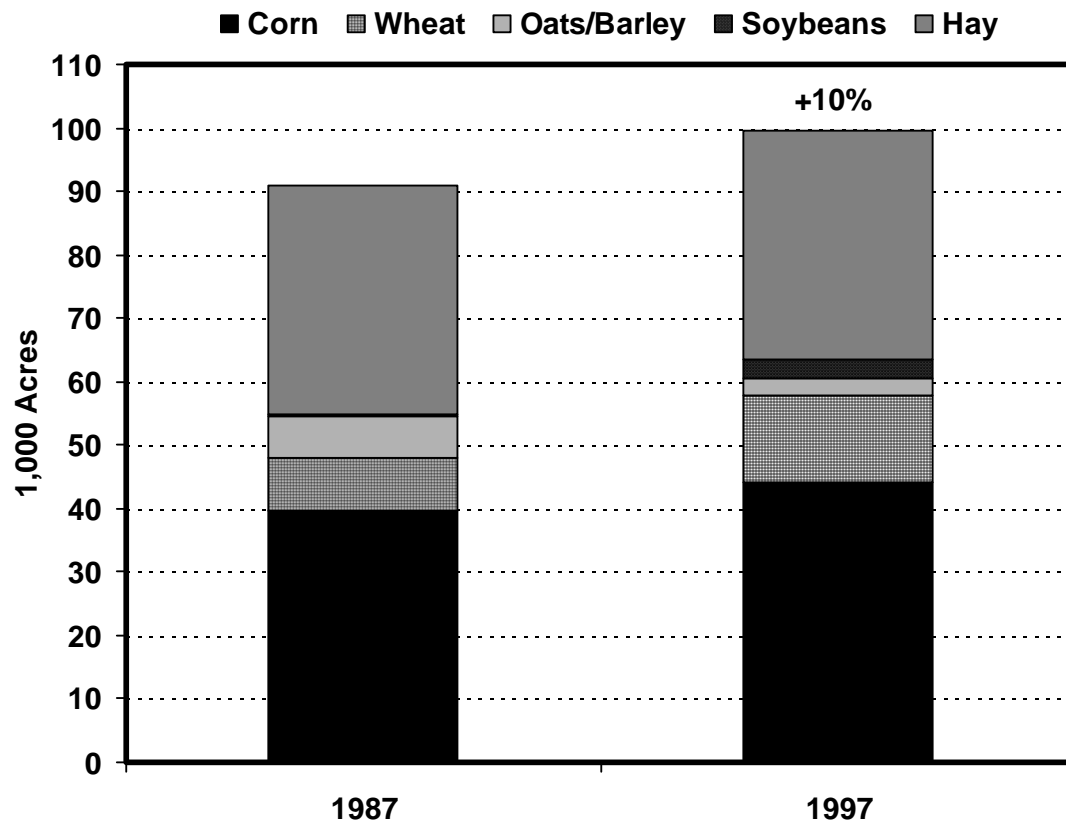


The number of dairy cows in Genesee County increased from 18,000 head in 1987 to 21,000 head in 1997. In contrast, Orleans County dairy cows slid modestly from 5,000 to 3,000 while Wyoming County posted a 10,000 cow increase between 1987 and 1997.

Source: U.S. Census of Agriculture.

Traditional Crops – Harvested Acreage of Row and Hay Crops Grow in Genesee County.

Harvested Acreage of Major Field Crops for Genesee County, 1987 and 1997.

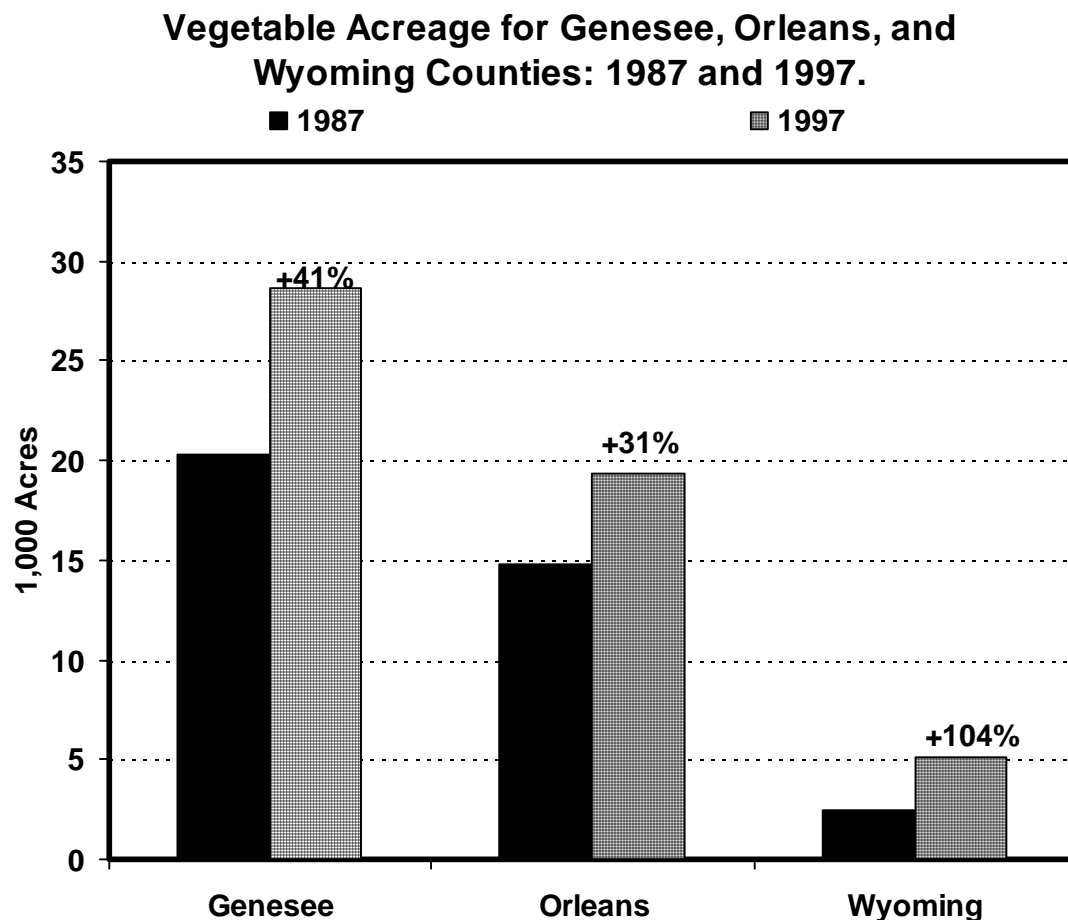


In the last 10 years, total harvested acreage of corn, soybeans, wheat, oats, barley and hay has increased 10 percent in Genesee County – slightly less than the increase seen in Orleans (+25%), but more than the change for Wyoming County (loss of 6%). Some of the increased acreage in Genesee County came from fewer acres of potatoes and dry beans.

Source: U.S. Census of Agriculture.

The percent change in crop acreage between 1997 and 1987 is shown on the chart.

Specialty Crops – Vegetable Acres Up Sharply in Genesee County.



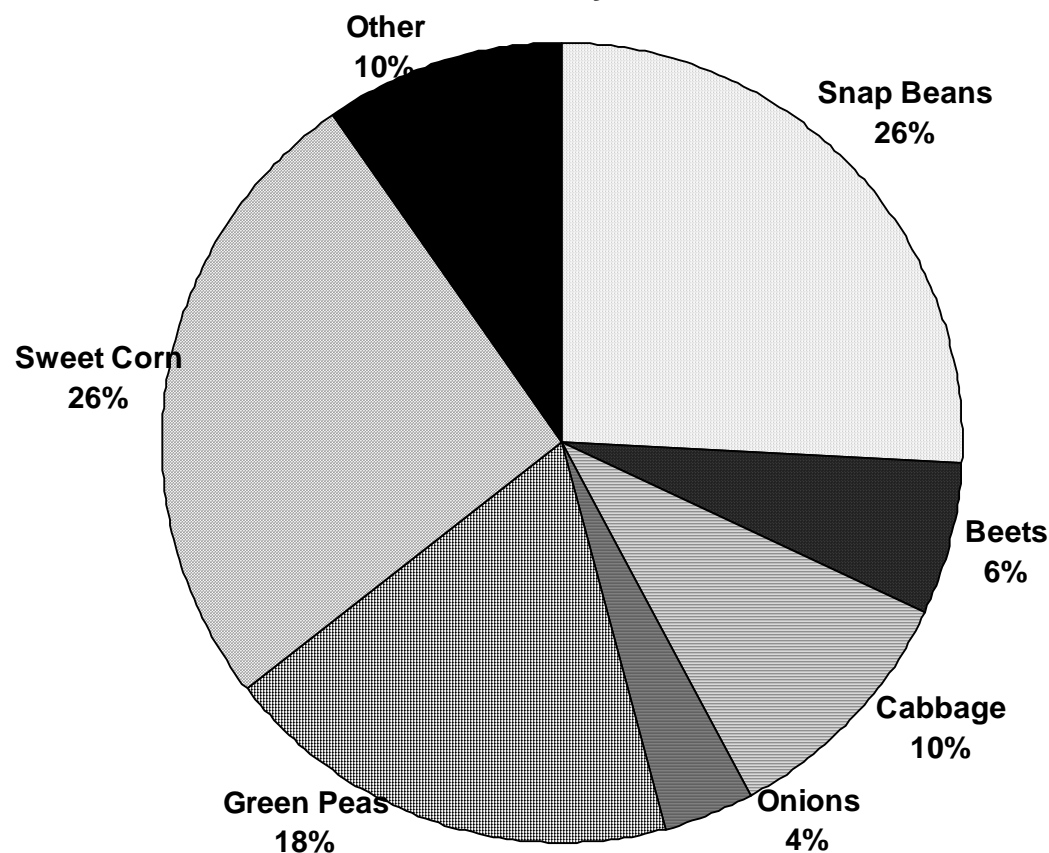
Vegetable acreage in Genesee County is up 8,000 acres in the last 10 years, mostly from an increase in snap beans, dry peas, beets, and cabbage. Although acreage of vegetable crops is up 41 percent in Genesee County since 1987, gross sales from vegetable crops are up 71 percent over this same period, suggesting that either productivity has increased or farmers are growing more high-value crops. Higher productivity may be tied to an additional 4,000 vegetable acres under irrigation since 1987.

Source: U.S. Census of Agriculture.

The percent change in vegetables acreage between 1997 and 1987 is shown on the chart.

Specialty Crops – A Few Crops Dominate Genesee County Vegetable Acreage.

Proportion of Vegetable Acreage by Crop for Genesee County, 1997.



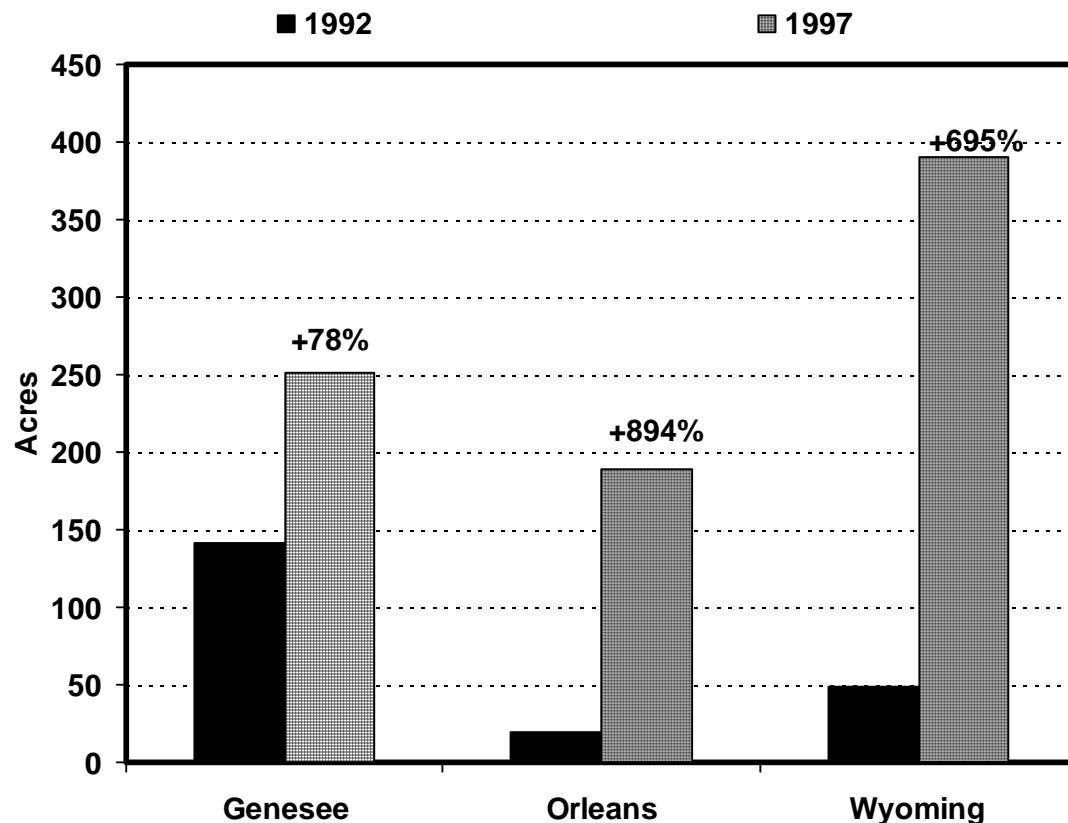
Snap beans, sweet corn and green peas account for 70 percent of Genesee County's 1997 vegetable acreage. However, as sweet corn has become less important (7 percent decline in acreage since 1987), farmers are growing more cabbage and beets.

Source: U.S. Census of Agriculture.

The proportion of each crop relative to total vegetable acreage is shown on the chart.

Specialty Crops – Nursery Production on the Rise in Genesee County.

Nursery and Greenhouse Acres in the Open for Genesee, Orleans and Wyoming Counties: 1992 and 1997.



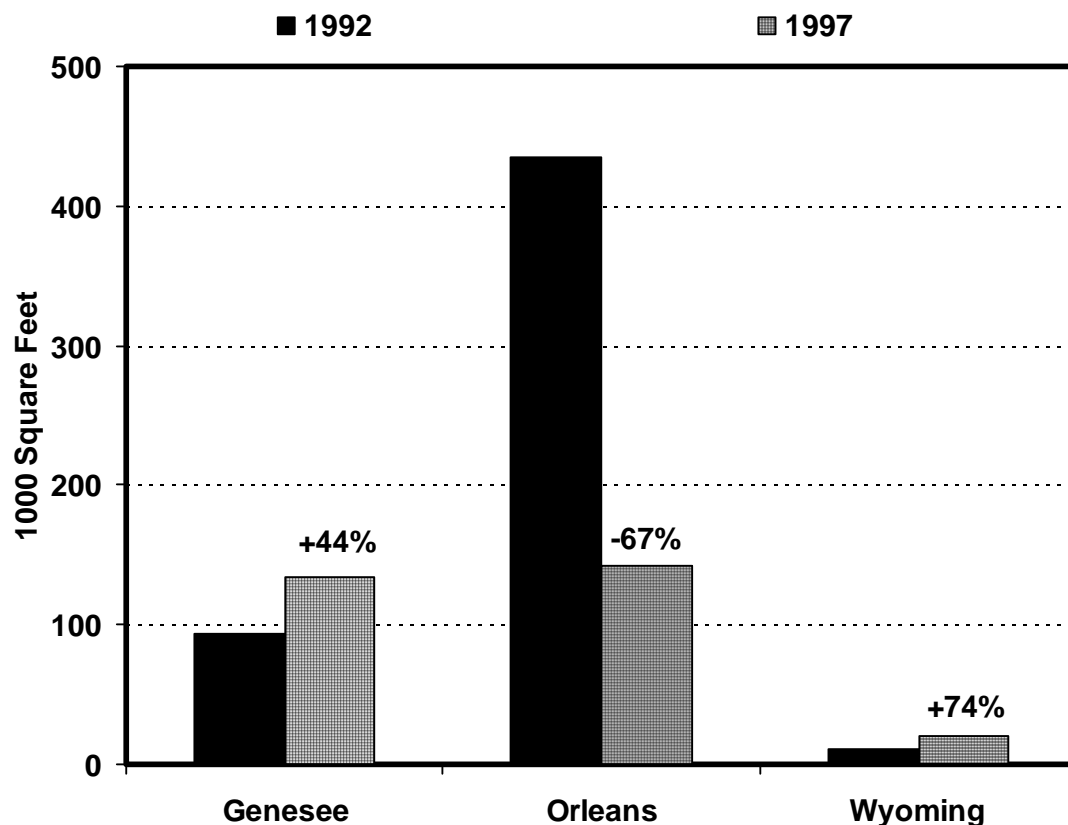
Acreage devoted to the production of nursery and greenhouse crops in Genesee County increased from 140 to 250 acres between 1992 and 1997. While impressive growth, it remains relatively minor compared to the growth in Orleans and Wyoming counties over the same period. Growing populations in these counties increase the demand for greenhouse and nursery products.

Source: U.S. Census of Agriculture.

The percent change in greenhouse and nursery acreage between 1997 and 1987 is shown on the chart.

Specialty Crops – Greenhouse Production Shows More Modest Growth.

Nursery and Greenhouse Production Under Glass for Genesee, Orleans and Wyoming Counties: 1992 and 1997.



Space available for greenhouse production under glass increased 44% in Genesee County between 1992 and 1997. In Orleans County, the loss of a few large flowering plant operations led to the sharp decline in greenhouse space.

Source: U.S. Census of Agriculture.

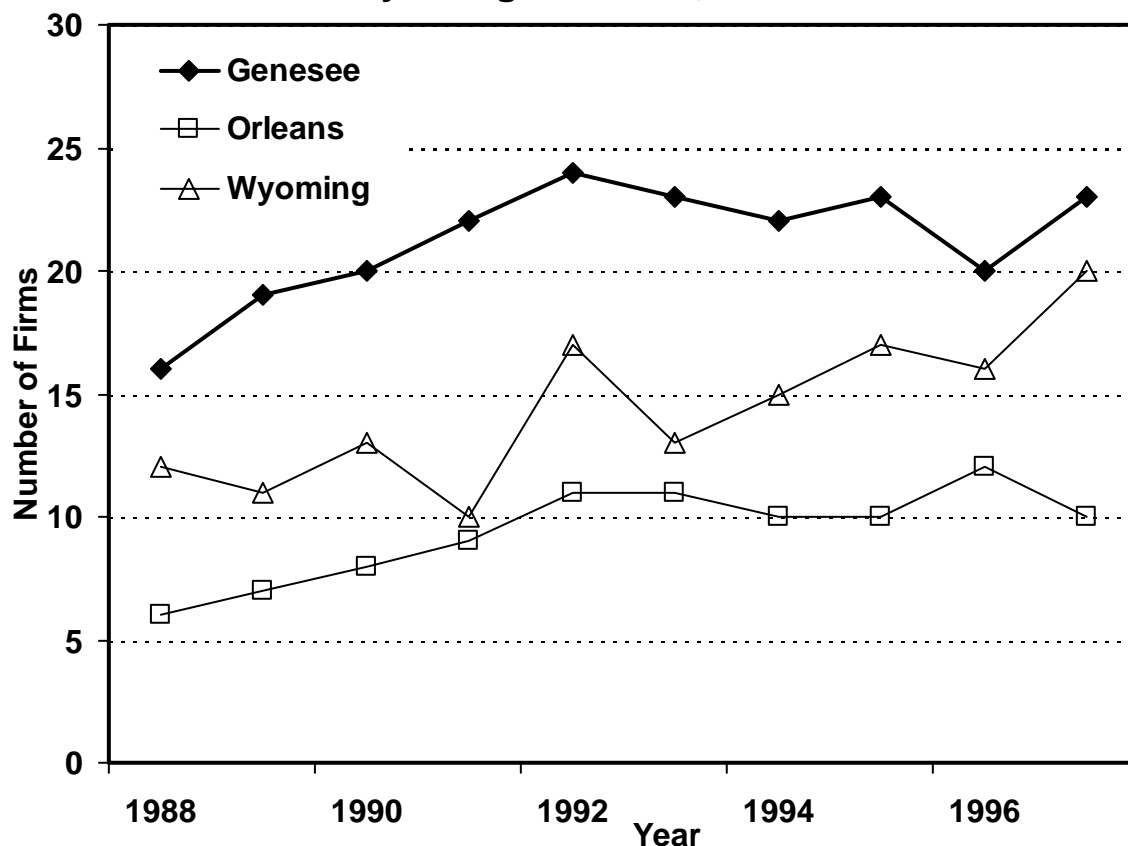
The percent change in greenhouse area under glass between 1997 and 1987 is shown on the chart.

SECTION 3

SECONDARY INDUSTRY IMPACT

Growing Number of Agricultural Service Firms in Genesee County.

Agricultural Service Firms in Genesee, Orleans, and Wyoming Counties, 1988-97.



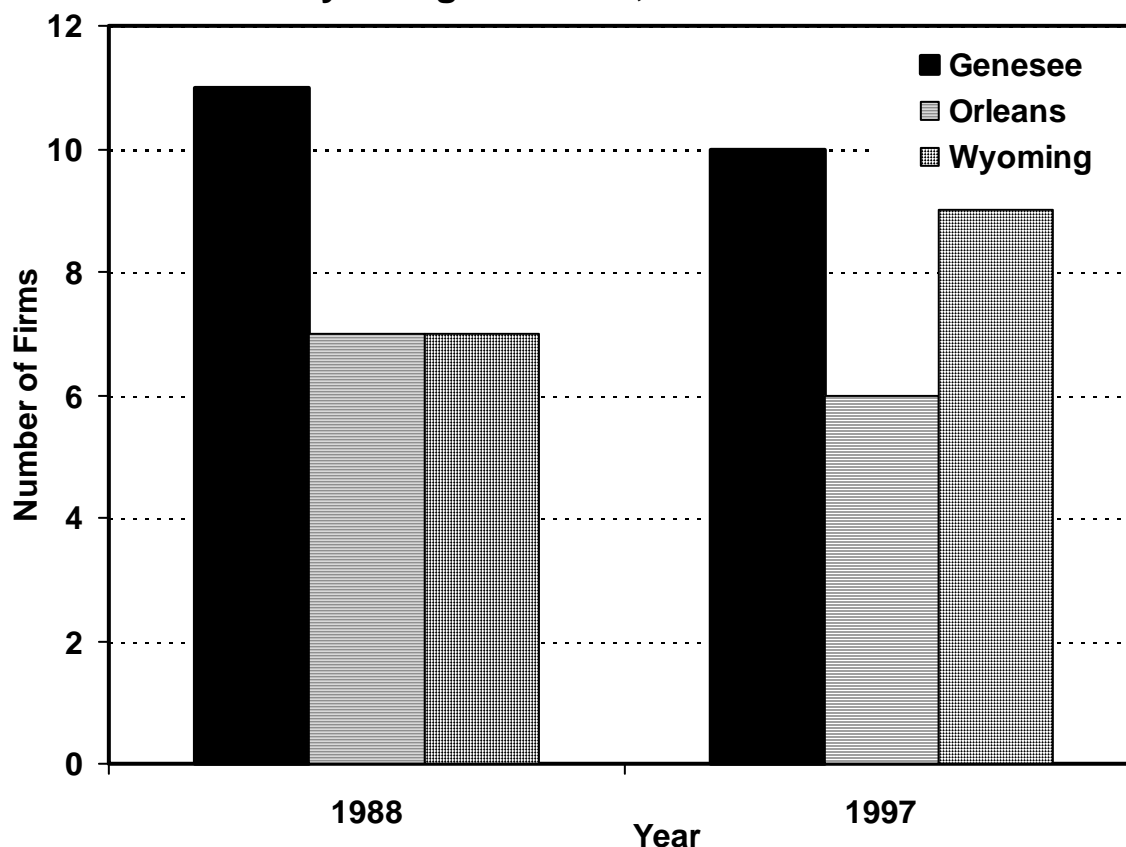
The number of agricultural service firms in Genesee County increased from 16 firms in 1988 to 23 firms in 1997, although the number of firms has remained fairly stable in the last 6 years. As of 1997, Genesee County's agricultural service firms employed 93 individuals and had an annual payroll of \$1.8 million.

Source: U.S. Census Bureau – County Business Patterns.

Agricultural Service Firms include: (a) soil and crop services; (b) veterinary and animal services; (c) farm labor management services; (d) farm management services; and (e) landscape and horticulture services.

The Number of Food Manufacturing Firms Remains Relatively Stable.

Food Manufacturing Firms in Genesee, Orleans, and Wyoming Counties, 1988 and 1997.



Food manufacturing firms in Genesee County fell slightly from 12 firms in 1988 to 10 firms in 1997. Orleans County experienced a similar drop in the number of food manufacturing firms while Wyoming County saw the number of firms grow from 7 to 9 over this period. As of 1997, Genesee County's food manufacturing firms employed 474 individuals with an annual payroll of \$15.5 million.

Source: U.S. Census Bureau – County Business Patterns.

Genesee County Farming Sectors' Output Value and Employment, 1997.

Farming Sector	Output (Million \$)	Employment
Dairy Farm Products	\$51.1	190
Vegetables	\$49.4	265
Hay	\$17.8	503
Grain & Oilseed Crops	\$10.6	115
Cattle	\$5.1	45
Other	\$6.9	76
TOTAL	\$140.9	1,194

The total value of Genesee County's farm output was \$141 million in 1997 and accounted for nearly 1,200 workers. Farm output represents 5 percent of the county's total estimated economic output of \$2.6 billion and less than 4 percent of the county's total employment of 31,000 workers. However, if total farm output were reduced to zero, it would have a much larger impact as economic activity would be reduced in other industries and sectors of the local economy. Loss of the farming sector in Genesee County would result in a \$200 million loss of total economic output in the county and over 2,100 jobs in the local economy.

Source: IMPLAN analysis of Genesee County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

Farming Sector Output for Genesee, Orleans and Wyoming Counties, 1997.

Farming Sector	Genesee (Million \$)	Orleans (Million \$)	Wyoming (Million \$)
Dairy Farm Products	\$51.1	\$7.2	\$115.2
Vegetables	\$49.4	\$33.6	\$10.9
Hay	\$17.8	\$5.0	\$32.3
Grain & Oilseed Crops	\$10.6	\$14.4	\$3.3
Cattle	\$5.1	\$0.8	\$5.0
Other	\$6.9	\$16.7	\$10.9
TOTAL	\$140.9	\$77.7	\$177.6

While Genesee County has a diverse agricultural base with dairy and vegetables accounting for 70 percent of total farm output, Orleans and Wyoming counties are more specialized. Orleans county is specialized in vegetable and fruit production, while Wyoming County is specialized in dairy and the resulting input requirements from hay.

Source: IMPLAN analysis of Genesee, Orleans, and Wyoming County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

Farming Sector Employment for Genesee, Orleans and Wyoming Counties, 1997.

Farming Sector	Genesee	Orleans	Wyoming
Dairy Farm Products	190	51	403
Vegetables	265	340	55
Hay	503	266	851
Grain & Oilseed Crops	115	301	33
Cattle	45	12	48
Other	76	293	114
TOTAL	1,194	1,263	1,504

Farm employment is the lowest in Genesee County as compared to Orleans and Wyoming County. Despite having low employment, Genesee County has nearly twice as much farm output as Orleans County.

Source: IMPLAN analysis of Genesee, Orleans, and Wyoming County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

Genesee County Farming Sectors' Output and Employment Multipliers, 1997.

Farming Sector	Output Multiplier	Employment Multiplier
Dairy Farm Products	1.33	2.30
Vegetables	1.54	2.58
Hay	1.47	1.22
Grain & Oilseed Crops	1.48	1.55
Cattle	1.58	1.75
Other	1.44	1.54
TOTAL	1.45	1.77

Every \$10 of additional farm output stimulates an additional \$4.50 of economic output in other industries and sectors of the Genesee economy. Likewise, every 10 jobs created in the farm sector stimulates an additional 7.7 jobs elsewhere in the economy. Although dairy farm products represent the largest farm output, the output multiplier for dairy is relatively low (1.33) compared to other farming products, especially vegetables (1.54). This suggests that an expansion in vegetable output will have a larger impact on the local economy than an identical sized expansion in dairy output.

Source: IMPLAN analysis of Genesee County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

The *Output multiplier* signifies the dollar change in total economic output for the local economy from a \$1 change in a sector's output and the *Employment multiplier* expresses the total employment change from a change in a sector's employment.

Farm Output Multipliers for Genesee, Orleans and Wyoming Counties, 1997.

Farming Sector	Genesee	Orleans	Wyoming
Dairy Farm Products	1.33	1.24	1.24
Vegetables	1.54	1.38	1.28
Hay	1.47	1.35	1.19
Grain & Oilseed Crops	1.48	1.33	1.19
Cattle	1.58	1.41	1.48
Other	1.44	1.34	1.21
TOTAL	1.45	1.35	1.24

The economic impact of farming is higher in Genesee County than the farm sectors of Orleans and Wyoming County. On average, for every \$10 increase in farm output in Genesee County, an additional \$4.50 of economic output in other industries and sectors is generated in the Genesee economy. The same \$10 increase in farm output for Orleans and Wyoming counties would only result in \$3.50 and \$2.40 of additional output, respectively.

Source: IMPLAN analysis of Genesee, Orleans and Wyoming County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

The *Output multiplier* signifies the dollar change in total economic output for the local economy from a \$1 change in a sector's output.

Expenditures by the Dairy Farm Sector in Genesee County, 1997.

Industry Sector	Expenditures (Million \$)
Feed Grains	\$12.3
Hay and Pasture	\$8.6
Prepared Feeds	\$7.1
Wholesale Trade	\$5.1
Agricultural Services	\$3.5
Motor Transportation	\$1.8
Real Estate	\$1.7
Electrical Services	\$1.1
Railroad and Related Services	\$1.1
Other	\$5.8
TOTAL EXPENDITURES	\$48.1

Nearly 60 percent of all expenditures by the dairy farm sector are on feed related products (feed grains, hay and pasture, and prepared feeds) accounting for \$28 million in 1997. Purchases from the wholesale trade and agricultural service firms accounted for another \$8.6 million or 18 percent of total expenditures. Rail and truck transportation also play an important role in dairy farm expenditures with rail being an important delivery mechanism for imported feed and truck being the primary mode of transportation of milk from the farm.

Source: IMPLAN analysis of Genesee County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

Expenditures by the Vegetable Farm Sector in Genesee County, 1997.

Industry Sector	Expenditures (Million \$)
Agricultural Services	\$14.4
Wholesale Trade	\$4.6
Real Estate	\$4.1
Paperboard Containers and Boxes	\$2.7
Agricultural Chemicals	\$2.4
Electrical Services	\$1.1
Maintenance and Repair	\$1.0
Motor Transportation	\$1.0
Other	\$9.0
TOTAL EXPENDITURES	\$40.3

Expenditures by the vegetable sector are spread over a number of sectors in the economy. However, top on the list is agricultural service firms which account for \$14 million or 35 percent of all expenditures by the vegetable farming sector. Not only does the vegetable farming sector spread more of its purchases over more sectors as compared to the dairy farming sector, vegetable farmers purchase more of their inputs from the Genesee County economy. Based on estimates from 1997 data, 44 percent of all vegetable farming expenditures are spent in the local Genesee economy, compared to 23 percent for the dairy farming sector.

Source: IMPLAN analysis of Genesee County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

Output and Employment of Agricultural Related Sectors in Genesee County, 1997.

Industry Sector	Output (Million \$)	Employment
Condensed & Evaporated Milk	\$409.0	853
Farm Machinery & Equipment	\$86.9	496
Prepared Feeds	\$41.5	92
Frozen/Canned Vegetables & Fruit	\$24.4	108
Cheese, Natural & Processed	\$13.6	28
Agricultural Services	\$6.4	253
Bread and Cake Products	\$1.5	12
Landscape & Horticultural Services	\$1.4	61
Fluid Milk	\$1.4	4
TOTAL	\$586.1	1,907

Other agricultural sectors including food processors and input suppliers play an important role in the local Genesee County economy. Dairy processing, especially condensed and evaporated milk remains an important agricultural sector producing \$424 million and employing 885 individuals. However, farm equipment and the frozen/canned fruits and vegetables sectors combined produce over \$110 million per year and employee over 600 individuals.

Source: IMPLAN analysis of Genesee County using data from the US Bureau of the Census, County Business Patterns, Regional Economic Information System (REIS) data, and the annual BLS ES-202 wage and employment data.

Appendix: IMPLAN Analysis and Results

SUMMARY

IMPLAN is an interindustry input-output model used to capture the interworkings of local economies. IMPLAN was originally developed by the USDA Forest Service in cooperation with other federal agencies. In order to address the prohibitive cost of extensive primary data collection on local interindustry purchases, IMPLAN and other “nonsurvey” modeling systems combine available data about the national economy with state and county level data to estimate the flow of goods and services through a local economy.

One of IMPLAN’s strengths is the fact that it integrates many sources of data¹ at different levels of aggregation into a comprehensive, internally consistent system that can be applied to any county or region in the United States. Although this integration requires numerous assumptions and estimations of data for specific industries in specific counties, great effort is made to make all estimates compatible with the most accurate available measured data. Unfortunately, the agricultural sectors are particularly difficult since there are no employment and earnings data collected on a commodity basis, even at the national level. IMPLAN uses specially developed procedures to estimate agricultural employment and income by commodity for all counties at the county level. For these estimates, the key anchoring data bases are the REIS data on total farm employment and income, National Agricultural Statistical Service estimates of value of output by

(continued)

¹ Major data sources of importance include the population census, County Business Patterns, Regional Economic Information System (REIS) data, and especially the annual BLS ES-202 wage and employment data.

commodity at the state level, and Census of Agriculture estimates of crop acreage by type and of the dollar value of livestock related commodities. The IMPLAN vendor does offer the sensible caveat that “analysts with better [local] agricultural data are encouraged to use it.” (See the IMPLAN PRO Data Guide, Minnesota IMPLAN Group, Inc, 1996 for more information.)

The overall consistency that is achieved by IMPLAN’s data integration procedures enables a comprehensive analysis of the relationships between all sectors of the economy that is otherwise elusive. The maximum use of county level data that is available throughout the United States helps makes this modeling approach significantly more defensible than similar estimates based on multipliers “borrowed” from another study or another economy. In particular, multiplier estimates based upon larger state or regional economies typically have multipliers that are too large because they implicitly overestimate local production capabilities.

Up to 528 industry sectors are tracked in the full national IMPLAN model, though local economies typically have only half of these or less present. The Genesee County model indicates that 135 of these industries are present in the county. Of these, 25 are agricultural and forestry industries considered for the purposes of this study.

APPENDIX B:

**PROJECTCONTACT LIST FOR
GENESEE COUNTY, NEW YORK**

Participating Individuals and Organizations

The researchers and authors of the report owe a debt of gratitude to the many organizations and individuals that participated in interviews and focus groups for this project. Some names have been kept confidential at the request of the participants.

Arctic Refrigeration	Tom Kelsey
Dick Barie	Pat LaPoint
Joe Barniak	Steve Lockwood
Herm & Jeff Berkemeier	Joe Macaluso
Blue Fox Farm	Charlie Miller
Steve Bolt	Lloyd Miller
Martin Broccoli	Dan Miller
Richard Buckley	Tim Moag
Nellie Call	Mowry Family
My-T-Acres	Jim Newcomb
Michael Chamberlain	John Noble
Sheryl Church	Dean Norton
Beth Claypoole	Gordon & Scott Offhaus
Les Cole	Dave Paoletta
Martin Culick	Phelps Family
Jim Czub	John Printup, Sr.
Dave Delavergne	John Printup, Jr.
Len Dries	Eric Randall
Jim Duval	John Reynolds
Farm Service Agency, USDA	Paul Riner
Tom Felton	Tom Rodak
Paul Fenton	Roger Rouse
Barry Flansburg	Daryl Rusk
Dick Glazier	John Sackett
John Gould	Gordon Seward
John Gray	Deborah Slusser
Mary Pat Hancock	George Squires
Bill Harris	Stephen Starowitz
Bob Hartrick	Terri Starowitz
Eric & Deb Hill	Dale & Shelley Stein
Bill Hirsch	Gary Stitch
Anne Humphrey	Lee Stivers
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APPENDIX B: Project Contact List

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APPENDIX C:

**AGRICULTURAL ECONOMIC DEVELOPMENT
CASE STUDIES FOR GENESEE COUNTY,
NEW YORK**

Fauquier County Virginia Agricultural Development Program

The goal/mission of the Fauquier County Agricultural Development Program is to promote the agricultural industry, increase the economic viability of farming and advise the County Board of Supervisors on matters affecting the agricultural economy and its development.

The Agricultural Development Officer answers to the County Administrator and an Agricultural Advisory Committee, chaired by a member of the County Board of Supervisors. The program is less than 2 years old and the current Agricultural Development Officer has been in position since May this year.

The Agricultural Development Officer is currently working with the Advisory Committee in the development of an agricultural strategic plan for the County. The plan will focus on 3-4 action items. Their website www.co.fauquier.va.us/services/farm/index.html highlights the Agricultural Advisory Committee's agenda, farm product directory, special events like the fall farm tour, and farm land report.

The fall farm tour was just held, which brought in 10,000 to 11,000 farm visitors, which was a 30% increase over last year. The farm tours had an educational component where the tourist had an actual task to "learn by doing" to experience the farm and not just see it. The tour offered every aspect of the industry from beef and dairy operations to emu and lama operations. The participating farmers sold lots of product direct during the tour and the emu farms sold out all of their meat products.

Fauquier County's biggest agriculture sector is in the production of feeder calves. Feeder calves are sold to feedlots in the Midwest and the meat product returns to the east. The Agricultural Development Officer wants to evaluate the opportunities for vertically integrating the process in his County to keep the added value local.

The Agricultural Development Officer has started a marketing group of agricultural producers and industry representatives to conduct the necessary research to identify new marketing opportunities and to test them. They soon learned that they did not have the necessary volume to enter some of the niche markets and as a result, identified the need to establish marketing alliances. As a result, new market alliances have been established with growers of similar crops.

The close proximity of Fauquier to the major population centers offers readily available niche markets and opportunities for direct marketing. However, the downside of that is the need to educate the newcomers on what farming is all about.

Contact:
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Agricultural Development Officer
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Loudoun County Virginia Agricultural Development Program

Loudoun County Virginia, one of the fastest growing counties in the country, has had an agricultural development program for 10 years. The Loudoun County Agricultural Development Program (ADP) was created to foster development of higher value agriculture. The goal of the program is to increase the value of traditional agricultural products and increase the diversity and marketability of non-traditional agricultural products.

The ADP has operated under the guiding principles of several strategic plans. Farming methods identified as areas of potential growth and opportunity are the production of beef, hay, Christmas trees, wine grapes, nursery grown trees, fruits and vegetables. In addition, biotechnology was identified as an area of growth and opportunity. Loudoun's close proximity to Washington makes it an ideal location for research and development initiatives as well as demonstration sites. The greatest percentage of program participants to date has been in the area of small farms. The participation of large farms is low and they have just begun supporting other agribusinesses.

Policy work, agritourism programs, advice to farmers, publications and the development of a farmers market system are the key program areas of the ADP. Production of marketing guides, listings of specialty producers, spring and fall farm tours and a website www.rural-loudounstate.va.us are the primary tools of the program and have proven very successful. Recent full color glossy publications include *Spring Farm Tour and Product Guide 2000*, *Loudoun Valleys Color Farm Tour* for this fall and *The Loudoun Wine Trail*.

The two newest programs are the farmland viability program and the Purchase of Development Rights (PDR) Program. Loudoun County's program measures its success by surveying farm participants and visitors and the increase in land usage.

The components of a "Purchase of Development Rights" (PDR) Program that builds on existing Virginia enabling legislation, permitting the creation of Service Districts for this purpose, was just recently developed by a local citizen group titled "*Service Districts and Purchase of Development Rights*". As a result of this work, the Agricultural Development Program has just recently begun implementing the PDR program. The role of agriculture in the County in the next 10 years is its base land use of 185,000 acres.

The Agriculture Development Program conducts 5 major events throughout the year for educating and increasing the awareness of the both the industry and the non-ag citizens.

Loudoun County has key strengths and opportunities for agriculture due to its proximity to a vast consumer market, excellent soils and the wealth of its farmers. The greatest challenge to the local industry is the apathy by the landowners.

Contact:

Lou Nichols, Agricultural Development Officer
(703) 777-0428

Oneida County New York Agricultural Development Program

Oneida County has had an Agricultural Development Program for two years. However, the current Agricultural Development Program Officer has been in place just two months.

Oneida County ranks 7th in milk production and 11th in overall agricultural production in the state, generating over \$88 million annually. There are currently over 1100 farming operations active in the county, which ranks 4th in the state. Agriculture remains diversified with the dairy industry comprising two-thirds of total output with fruits, vegetable, and greenhouse/nursery comprising most of the remaining third.

Agriculture remains a vital component of Oneida's local economy. It is an industry that brings money into the county by exporting their agricultural products to the urban markets. Oneida's close proximity to large population centers is a major advantage that provides many marketing opportunities. In addition, their high land resource capacity combined with low land costs provide additional opportunities for the growers.

The Agricultural Development Program is focusing on farm propagation, food processing and manufacturing for enhancing the agricultural industry. For example, meat packing use to be a big industry in the state, now 80% leaves the state. The Agricultural Development Officer is looking at market opportunities, for example the niche ethnic markets from New York City to Detroit, for rekindling meat packing in the state.

The state of New York has established a grant program that supports the diversity of farm operations. It is an application process whereby the state supports and funds new market incentives based on sound business plans.

The agriculture development program has worked out a program that provides local agricultural products to the state prison system. The state has centralized cooking facilities for their prison system. Just recently, the agriculture program officer put together 12,000 dozen ears of corn delivered to the state prison system. The institutional markets provide a great market outlet, however, the downside is that they shop for price.

The agriculture development program is at ground zero, new mechanisms have been put into place, now the action strategies have begun. Their website is www.cce.cornell.edu/oneida.

Contact:
Marty Broccoli
Agricultural Development Officer
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Massachusetts Farm Viability Enhancement Program

The Massachusetts Farm Viability Enhancement Program (MFVEP) of the Massachusetts Department of Food and Agriculture has been in place 5 years. The agriculture leadership in Massachusetts felt that a large number of dairy farms would go out of business following the Federal Court decision dealing with dairy marketing orders. As a result, the MFVEP was established to help farmers maintain their economic viability, diversify into other agricultural opportunities, and to modernize existing operations. Not long after, the Northeast Interstate Dairy Compact was passed to assist the dairy farmers in that region. The Northeast Interstate Dairy Compact is a regional pricing mechanism for fluid milk sold in the six New England states, passed into law by all six participating states and authorized by Congress.

The MFVEP has an annual budget of approximately \$1 million. Participants must have a minimum of 5 acres in agricultural production in order to be eligible to apply for assistance. It is a competitive process and to date, 251 farms have applied. This represents approximately 4.5% of the 5,574 farms in the state.

The program has two phases: in Phase I, a participating farmer will work with a planning team to assess the current farm operation and suggest ways to increase on-farm income and preserve the farm's environmental resources. Farm viability plans are developed by teams of agricultural, economic and environmental consultants who make recommendations on increasing farm income through such techniques as improved management practices, diversification, direct marketing, value added products and agritourism.

In Phase II, funding is made available to the farmer to implement the plan in exchange for an agricultural use covenant on the property.

The Department evaluates applications on the following criteria:

1. Numbers of acres of land;
2. Suitability and productivity of the land for agricultural use;
3. Degree of threat to the continuation of agriculture on the land;
4. Degree to which the project would accomplish environmental objectives; and
5. Number of years and type of agricultural experience.

These farmer-friendly low cost plans assess a farm's strengths and provide business planning and marketing information to the farmer in an effort to make the farm more profitable. If the farmer signs an agreement not to develop the land for a five or ten year period, the state pays for the short-term non-development value. The farmer must use the funds to implement the viability recommendations.

The MFVEP develops and writes a business plan for the applicant with their input and provides the necessary funding for implementation. The farmer has to accept and

implement the recommendations of the business plan, which includes the protective covenants for the land.

To date, there are 105 farms with business plans, 10,000 acres under protective covenants, and an average projected increase in income of \$19,000. This year, 2000, an additional 34 farm operations will be participating in the program.

Farm and market reports, newspaper articles and a website, www.massgrown.org, are the primary tools used by the MFVEP for educational awareness.

The strength and opportunity of agriculture in Massachusetts is its access to a population base of 6 million people. This factor enables the agriculture community to position itself to provide a fresh high quality product to the local consumer. Just as importantly, the farmer preserves open space, which enhances the quality of life for the community.

This large population base also presents the challenges of developmental pressures from housing and industry and increasing regulations and environmental concerns.

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MFVEP Director
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AMERICAN WHITE WHEAT PRODUCERS ASSOCIATION: A Case Study in Farmer Cooperation in Value-Added

American White Wheat Producers Association (AWWPA) is a producer-owned marketing cooperative formed in 1988 in Atchison, Kansas. Their mission is to develop white wheat markets for their producers. Currently, there are 300 farmers in this closed cooperative. AWWPA's primary goal is to add value, getting their farmer-members product further up the marketing chain. Recognizing the importance of the customer, AWWPA has spent the last ten years perfecting an identity preserved, targeted delivery, process for value added white wheat products.

Overview of AWWPA Structure

AWWPA is operated by an unpaid 10-member Board of Directors. The Board is elected by the members of the cooperative at shareholder meetings. The Board is responsible for appointing and overseeing paid administrative staff including the general manager, accountants, attorneys, and office staff. To participate in AWWPA, a farmer must become a member (\$100 per share for 100 acres). Each grower-member signs an agreement specifying that hard red white wheat will be grown according to the following conditions:

- Planted on clean ground.
- Good agricultural practices will be used.
- Use only certified seed from approved dealers.
- Abide by the marketing agreement.

All fields are inspected and farmers are required, after harvest, to submit a 35-pound sample from each field. AWWPA owns no elevators, trucks, flourmills, or baking facilities. Instead, it relies on several strategic alliances that facilitate the logistics of assembling and moving grain from producers to end-users. AWWPA contracts with several grain handling and transportation companies to collect wheat from growers and deliver it to flour mills. If a farmers' white wheat does not meet quality specifications, AWWPA arranges for it to be sold as feed, with the farmer receiving payment for its feed value.

AWWPA has agreements with three Kansas flourmills for milling and packaging of whole white wheat flour and wheat-based food ingredients (vital wheat gluten and white wheat bulgar). In turn, AWWPA directly markets whole white wheat flour directly to bakers and has trademarked the logo "Naturals' Wheat". Manufacturers of products containing white wheat are given a price discount for using the logo on their packaging. The largest markets for finished goods have been for breads and tortillas. AWWPA white flour is also sold through food stores under various brand names.

Packaged flour is sold directly to flour merchandisers, with each miller receiving desired specifications for packaging and milling.

Production and Marketing System

Production of white wheat for AWWPA is open to any producer who agrees to the production and marketing contract. Production levels are set by expected demand and

producers are assigned production levels on a first-come first-served basis. The grower must provide a map of the fields planted to white wheat and other agronomic data to facilitate inspection. Quality control is an important part of AWWPA's staff. The crop is inspected prior to harvest for factors that might affect the food quality of the wheat and steps -- like treatments or abandonment -- are taken to assure a quality product.

During the initial years of AWWPA, a pooling arrangement was used as a basis for payments. Growers provided on-farm storage for up to 9 months or delivered the grain to a pooling facility. Farmers were charged for storing grain at the pooling facility. Within 9 months of binning the grain, a producer chose the day on which to set the price that determined the first payment (basis 70% of red wheat price). Payments were based on quantity and quality standards and, overall, average payments were about 30 cents per bushel over local hard red prices. In 1994 and 1995, AWWPA altered their pricing arrangements. Currently, producers can choose from three pricing options -- Flat Price Option, Cash Option, and Pool Option. The Flat Price Option guarantees a price of \$3.50 delivered to Hutchinson, KS. The Cash Option allows a producer to receive the cash price of red wheat in Hutchinson plus 15 cents on a day selected by the producer. The Pool Option provides a producer with an initial payment of \$2.60, and then receives up to 5 additional payments depending on the success of the marketing program.

Once wheat is harvested and stored by a producer, each lot undergoes a standard mill and bake test. This process accounts for a large portion of AWWPA's administrative expenses because each test costs \$95. However, the test serves 3 useful functions. First, it helps assure high quality wheat. Second, testing helps facilitate targeted delivery (providing end users with a product that meets their exacting specifications. Third, test results on each lot of grain allows AWWPA to minimize targeted delivery transportation costs.

THE TILLAMOOK COUNTY CREAMERY ASSOCIATION: A Case Study in Farmer Cooperation in Value-Added

The Tillamook County Creamery Association (TCCA) was organized in 1909 as a quality control organization for ten cheese factories operating in Tillamook County Oregon. Later, TCCA expanded to incorporate all 25 operating cheese factories in Tillamook County. In 1918, TCCA originated an advertising program and was credited for being the first community to brand its cheese and for advertising it under a brand name. TCCA is a cooperative owned and operated by 150 dairymen, nearly all of who reside in Tillamook County. The Tillamook area has proven to be ideal for dairy farming and is home to more than 20,000 cows. The county receives more than 80 inches of rainfall each year, providing lush green pastures.

TCCA has a raw milk supply of 175,000 gallons/day from 150 members that have herds averaging 135 cows. The grazing dairies lead the nation in milk quality and have done so for the past several years. The continued success of the TCCA is that it has the highest quality product coming in and they do not cut corners in the production of their dairy products. The highest quality milk and highest quality ingredients produce a winning formula for the TCCA.

In 1963, a dispute arose among the members with some wanting to close the pool to additional Grade A producers. The majority, however, favored continuing an open pool policy. This resulted in a loss of some membership, but the open pool prevailed and the Growth of Grade A milk production has continued. In January 1969, all members were merged into one cooperative and the Association no longer was a federation of cooperatives.

Since 1909, TCCA has matured into a national marketer of quality dairy products such as naturally aged cheddar and a variety of other cheeses, butter, and an extensive line of premium ice cream, sour cream and yogurt. The TCCA is now looking into expanding its product line into bottled milk drinks. The retail appeal for the Tillamook brand is so high that the TCCA receives more for their product than other brands at the wholesale level.

Tillamook provides full color recipes and a full colored gift catalog that offers a variety of gift packs with cheeses, preserves, nuts, sausages, popcorn, candy, cookies, smoked beef, meat sticks and jerkys. The non-dairy items in the gift packs such as the processed meats, preserves, cookies, etc. are not produced by the TCCA, however, they are produced locally. The TCCA has formed a marketing alliance with the producers of these goods to offer more variety in their gift packs.

This year, TCCA completed a 35 million pound capacity automated storage and retrieval system (ASRS) cold storage warehouse, including a seven-bay shipping dock with refrigerated staging areas, new shipping offices and a new electrical distribution and refrigeration system.

The TCCA has 45 professional employees and over 350 employees that staff the new state of the art manufacturing plant. The plant processes 1.5 million pounds of fresh milk daily, seven days per week, into products, which yield rewarding economic returns to its members. TCCA has never sold surplus product to the government.

Oregon has a very large tourist industry. As a result, nearly one million visitors tour the plant each year to watch the production, manufacturing and packaging of cheese products. The tourists also purchase ice cream for immediate consumption and dairy products to take home. The high customer satisfaction from the tourist trade has built a premium into the marketing program. The premium the dairy farmers receive is primarily a result of the tourist industry. The question the TCCA members are confronted with is how much do they want to capitalize on their one million tourists. (i.e. gas stations, hotels, etc.)

Tillamook represents about one-third of all milk produced in the state of Oregon. 100% of all the milk produced in Tillamook County goes to the creamery. TCCA members, however, do deliver skim milk to other coops. The TCCA is an open member coop only in two counties, Tillamook and Clatsop. 30-40% of the milk received at the creamery is purchased from nonmembers. The TCCA is closed outside of these two counties.

In 1999, TCCA recorded \$199 million in total sales and handled 635 million pounds of milk. Of this total, 458 million pounds came from its own patrons and other producer groups supplied 177 million pounds. Of that amount, 70 million pounds of milk were delivered to the Portland market by the Association's fleet of milk transports, 7 million pounds were used in ice cream and butter manufacturing, and 558 million pounds were used in cheese making. Sales are mainly in the Pacific Coast states of Oregon, Washington and California, with an ever-growing volume going to all parts of the United States, including Alaska and Hawaii.

Since January 1, 1986, all patron milk has been paid for at a uniform price. As of January 1 2000, the price is based on a cheese yield formula. Mailbox checks of TCCA members are much higher and less volatile than those of dairymen dealing with other more traditional milk coops. According to the Tillamook County Dairy Extension Specialists, members of TCCA receive anywhere from \$1.00 to \$2.00 more for their milk. The TCCA consistently pays a premium above the Federal marketing order. TCCA members do not receive a 13th check.

Capital for the cooperative is furnished from the retention of member earnings, and non-member retained earnings. It is the intention of the Board to pay out 30% of member earnings in cash, and to revolve member outstanding allocations at the rate of 10% each year. No interest is paid on member allocations and there is no stated due date. Line of credit borrowings from C-Bank and US Bank are available up to \$47,500,000, and are secured by inventories and accounts receivable. Term debt from Co-Bank is used for the purchase of major assets.

Top quality milk at the farm level has long been a hallmark of TCCA. In 1984, a quality incentive program was instituted and updated in 1999. The latest program pays 10 cents per hundred pounds of milk to any producer who ships milk with less than 5,000 raw bacteria count, 5,000 pre-incubated bacteria, 300,000 somatic cell counts, and for number one grades on sediment, flavor and odor. Each month, nearly one-half of TCCA production qualifies for this premium. In 1987, a somatic cell/high cheese yield milk – as much as 40 cents per hundredweight premium was put in place.

The biggest decision of the TCCA was reached in 1999. This was the decision to build a new satellite cheese plant in Boardman, Oregon. Deciding a satellite plant had to be built was not an easy decision. Yet, market conditions forced the decision upon TCCA. The demand for Tillamook cheddar had increased dramatically over the past several years, and some of the best customers became even bigger through mergers and acquisitions. Tillamook had to expand its production to meet the ever-expanding customer demands. If Tillamook could not fill the shelves, a competitor would. Buyers for these chains buy for all their stores or none. Tillamook cheese must be available in all. So the decision was made to build a new satellite cheese plant.

The TCCA makes a major decision every 3-4 years concerning expansion such as their new feed mill, storage facilities, satellite cheese plant, etc. The Board takes a very conservative approach to expanding their operations, which they realize they have to do, but their decisions are approached incrementally. They are not making numerous major decisions all at one time, but are taking one step at a time, which has reflected upon their success. In asking the Senior Vice President about an East Coast presence, the answer was no, but this falls in line with their decision making process. Two to three years from now, if TCCA was approached with a well thought out business plan, their answer might be different.

Brand name recognition, top quality products, strong board and good dairy farmers are the key to TCCA's success. If there's anything in the Tillamook model that can be replicated 100 years later, it is quality products, according to their Senior Vice President. The Senior Vice President recommends to dairy farmers today to develop a business plan and operational financial model and then manage the plan.

Plant Size

46-acre site

145,000 sq. ft.

Cheese manufacturing: 11,500 sq. ft.

Starter room: 1,000 sq. ft.

Cheese packaging: 14,600 sq. ft.

Cheese cooler: 60,600 sq. ft.

Dry storage: 28,225 sq. ft.

Water

Municipal water source. Waste treatment on-site system that handles 200,000 gallons per day with a two stage extended aeration process.

Shipping

25 tractors and 44 trailers. Full service shop for maintenance of company's 36 owned vehicles.

Raw Milk Supply

Raw milk supply of 175,000 gallons/day. Five contract haulers collect milk from 150 members that have herds averaging 135 cows. 40 loads are collected each day.

Contacts:

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Troy Downing
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Tillamook County
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Summary compiled from comments provided by Jim McMullen, Senior Vice President, TCCA; Troy Downing, Dairy Extension Specialist in Tillamook County; and Public/TCCA Information Packet and The Tillamook Way a history of the Tillamook County Creamery Association a farmer owned cooperative by Archie Satterfield.

**Virginia's Shipping Point Farmers' Market System:
Northern Neck Farmers' Market & Northern Neck Vegetable Growers
Association**

The Northern Neck Farmers Market is a packing shipping facility for produce located in the northern neck peninsula of Virginia. It is operated under the direction of the Northern Neck Vegetable Growers Association, a nonprofit, 501 C-3 corporation.

The facility is approximately 60,000 sq. ft. under roof with 20,000 sq. ft. of cold storage. Currently there is a hydro cooler on site that can handle a trailer load of sweet corn at a time along with grading and packing lines. The facility operates year round and during the 1999 calendar year approximately 3,000 acres of produce from 31 producers moved through the facility. The markets high volume products are corn, peppers, squash and cucumbers. Other products include cantaloupes, eggplant, greens, broccoli and tomatoes

The Board of Directors is charged with the duties of overseeing the market operations and safeguarding the interests of the producers of the region, both those served and to a certain degree, those not participating in the market.

The northern neck peninsula of Virginia has traditionally been a primary producer of corn, soybeans and livestock. With the desire of the region to maintain a viable agricultural industry and rural way of life, producers have diversified their production and marketing capabilities to increase cash flow and economic stability.

As the food industry has continued to consolidate, doors have continued to close in the faces of small, local producers. The days of having locally owned and controlled grocery stores to which small vegetable producers can sell their produce are numbered if not gone. Market access continues to be an issue facing many commodities and vegetables are no exception. Large food chains prefer and even demand load lots of produce delivered to their docks to their specifications and at their request. Fortunately, the Northern Neck Vegetable Growers Association realized this trend and placed this market, and the producers who support it, in a position to respond to this trend and, through cooperation, remain competitive in this ever tightening market.

The Northern Neck Vegetable Growers Association came into being in 1989. There are approximately 31 grower members with a 9 member Board of Directors. The major drive/influence in the creation of this association was the need for collective purchasing, marketing and pooling of product, which is necessary for meeting the volume requirements of the major buyers. Another major aspect was the need to have an organization to serve as an advocate for the growers and the vegetable industry. The Northern Neck Vegetable Growers Association has achieved this notoriety by receiving the "*Governors Marketer Award for 1999.*"

The Northern Neck Farmers Market had an approximate revenue of \$8,324,517 in 1999. 97% was wholesale and 3% was retail. 1,236,229 boxes or crates and 3969 bins of 31

different products moved through the market in 1999 – approximately 1,000 trailer loads - 80% from Virginia and 20% from North Carolina and Maryland.

Parker Farms provides the critical mass necessary for the market to be competitive and to meet the demands of the buyers. The coordination of this volume of business could not have been accomplished without the professional services of a marketing entity such as Parker Farms. The sales and management staff continues to provide a valuable service to local producers and a link to over 200 chain store buyers and purveyors of vegetable products along the east coast and Midwest.

Contacts:

Susan Simpson
Virginia Farmers' Market Board
(804) 786-2112

Gary Allensworth, Chairman
Northern Neck Vegetable Growers Association
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**IOWA AGRICULTURAL FINANCE CORPORATION (IAFC)
IOWA AGRICULTURAL DEVELOPMENT AUTHORITY (IADA)
A Case Study in State Financial Support Programs**

The State of Iowa has been actively supporting innovations in agriculture through the IAFC since 1981. Since the state initiated its agricultural finance programs, Iowa has financed over \$200 million in agricultural and agriculturally related improvements using a combination of capital instruments. The stated reason Iowa has engaged in such a comprehensive approach is to “facilitate private investment capital in this under-served industry.”

The primary tools employed by the State of Iowa are 1.) the tecTERRA Food Capital Fund, 2.) the Value-Added Agricultural Products and Processes Financial Assistance Program, and 3.) the Aggie Bond Program. These programs are defined below:

1. tecTERRA Food Capital Fund I, L.P.

Program: tecTERRA is a private-public investment partnership between Cybus Capital Advisors, LLC, the managing partner, and the Iowa Agricultural Finance Authority. The IAFC provided approximately \$25 million in seed capital and worked with Cybus to raise an additional \$18 million.

Sectors: Agribusiness, food processors, biotechnology, and related industries within the State of Iowa.

Products/Services: Mezzanine debt and equity in connection with private ownership transtion, management buyouts, platform build-ups, growth capital, and recapitalization.

2. The Value-Added Agricultural Products and Processes Financial Assistance Program

Program: This state run program promotes the innovative utilization of Iowa’s agricultural resources by investing in the development of new agricultural products and processing technologies. Current program focus areas are:

- **Innovative Products and Processes** which supports the conversion of agricultural commodities into higher value products not common to the state, as well as process development and improvements unique to Iowa or the commodity.
- **Renewable Fuels and Co-Products** which supports the production of renewable fuels and co-product for livestock feed.

Sectors: Agribusiness, food processors, biotechnology, energy, and related industries within the State of Iowa.

Products/Services: Loans and loan-to-grant financing of up to \$900,000 for qualifying businesses. Qualifying businesses must be located in Iowa, have a business plan, have qualified managerial and technical experience, and have completed a feasibility study.

3. The Aggie Bond Program

Program: Aggie bond program utilizes tax exempt, small issue private activity bonds defined under section 147 of the Internal Revenue Code to finance beginning and first-time farmers. Funds can be used for land acquisition, capital improvements, equipment / machinery, and other depreciable assets.

Sectors: Small scale first-time farmers with less than 5 years experience qualify.

Products/Services: The state acts as an intermediary between a qualified buyer and seller as defined in the IRS code. The state does not underwrite the bond neither does it facilitate nor provide a secondary market for these securities. Deal size is limited to \$250,000.

For further information contact:

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APPENDIX D:

**INDUSTRY PRACTICE SUMMARIES FOR
GENESEE COUNTY, NEW YORK**

Dairy Industry Practices

Like much of agriculture, the U.S. dairy industry has gone through significant changes in recent years. In the last 40 years, technological advances in the production, processing, and distribution of milk have dramatically altered the U.S. dairy farming sector. Since the 1960s, U.S. dairy farmers have increased output per cow approximately 3% a year as a result of scientific and management advances, such as artificial insemination, embryo transfers, and computerized management tools. As these technologies have been adopted, there has been a move towards larger dairy farms to take advantage of economics of scale in milk production. As a result, the last 20 years has witnessed a dramatic drop in the number of dairy farms but those that remain milk more cows. Some smaller farms are attempting to survive by switching management methods, utilizing what is known as *intensive grazing*. This approach substitutes a high-quality pasture feeding system for more expensive feed concentrate rations.

Changing technologies in milk production have also influenced the location of dairy production. Where once the Upper Midwest and Northeast were dominant milk production regions, California and other Western states have grown significantly in the production of farm milk as large-scale dairy production has become more feasible. In addition, improvements in transportation and refrigeration have helped ship milk and dairy products over greater distances, implying a lesser need for dairy farms close to urban populations.

While the structure of dairy farming has seen remarkable changes in recent history, pricing in the U.S. dairy industry remains largely regulated by the federal government, dating back to policies enacted in the 1930s. Although a number of different policy mechanisms have been used over the years to establish farm milk prices, the mainstay of dairy policy has been the Federal Milk Marketing Order (FMMO). The Federal Milk Marketing Order system institutes regional boundaries where milk prices are administratively set based on the final use of milk. This pricing system, known as classified pricing, means that processors who use milk to produce cheese or butter pay a different price than those classes processors that use milk to make fluid or drinking milk. Currently, there are four different milk classes: Class I (used for fluid milk), Class II (used for yogurt and ice cream), Class III (used for cheese) and class IV (used for butter and dry milk). Class I receives the highest price for milk, while class IV is the lowest price. Farms within a particular FMMO receive the same blend price for their milk, which is a weighted average of the class milk prices based on the utilization of milk in their region. Although new dairy pricing legislation was implemented in 2000, at the margin it created few changes as dairy farm prices continue to be regulated on a regional basis.

Farmer-owned cooperatives also play an important role in the dairy marketing sector. Dairy cooperatives provide a number of functions for their members including bargaining for higher prices with processors, as well as direct marketing of processed dairy products and some fluid milk. Like much of the dairy marketing industry, dairy cooperatives have gone through considerable mergers and acquisitions over time as economies of scale in

milk handling and processing demand larger but fewer firms. In 1980, there were 435 dairy farm cooperatives in the United States but by 1992, the number of cooperatives had fallen to 265.

As dairy cooperatives have merged and grown in size, so too has the discontent among farmers as many believe mega-cooperatives no longer serve the needs of individual farmers. In addition, some dairy farmers believe that the operating costs and investments made by cooperatives are too high, reducing any financial benefits that a farmer might receive from being a member. As a result, recent years have seen a growth in regional milk bargaining associations. The most prominent of these is the Regional Cooperative Marketing Agency (RCMA), headquartered in Syracuse, New York. More recently, Producers Equalization Agency in the Cleveland-Pittsburgh market and the Southeast Dairy Farmers Federation have been organized. These organizations and others like them attempt to draw dissatisfied cooperative members or independent milk producers into a regional milk bargaining agency for the purpose of collective bargaining with processors.

Dairy farmers will have a new, voluntary tool for marketing their milk used in non-fluid products. USDA has issued final rules to implement a dairy forward contracting pilot program for milk marketed under the Federal milk marketing order program. The pilot program will be in effect for milk marketed August 1, 2000, through December 31, 2004. Under the new program, handlers may enter into forward contracts with dairy farmers or cooperative associations to buy milk that will be used to make non-fluid products such as butter, powdered milk, cheese, ice cream, and yogurt. For milk covered by forward contracts, a handler will not be required to pay dairy farmers the mandated minimum Federal order price. Instead, dairy farmers and handlers will agree to a price as specified in a forward contract. The pilot program is voluntary and intended to offer an additional marketing tool for dairy farmers.

Although trends in the dairy farming and marketing sector have been fairly predictable, changing consumer preferences towards dairy products have been more perplexing. While consumers have moved towards lower-fat diets in recent years, this changing pattern in dairy products has not been universal. Annual per capita consumption of fluid milk declined from 31 gallons in 1970 to 24 gallons in 1996. In addition, the trend in fluid milk consumption is towards lower fat milk and away from whole milk. However, consumers have found other dairy sources for fat. Per capita consumption of fluid cream products-half-and-half, light cream, heavy cream, eggnog, sour cream, and dips-jumped from 9.8 half pints in 1970 to 16.4 half pints in 1996. In addition, cheese consumption has grown considerably over time, increasing 140 percent between 1970 and 1996, from 11 pounds per person to 28 pounds. Lifestyles that emphasize convenience foods were probably major forces behind the higher consumption. In fact, two-thirds of our cheese now comes in commercially manufactured and prepared foods (including foodservice), such as pizza, tacos, nachos, salad bars, fast-food sandwiches, bagel spreads, sauces for baked potatoes and other vegetables, and packaged snack foods. Advertising and new products-such as reduced-fat cheeses and resealable bags of shredded cheeses, including cheese blends tailored for use in Italian and Mexican recipes-also had an effect. These changes in consumer preferences have had important impacts on milk prices at the farm.

For one, milk productivity at the farm level has outpaced the demand for milk products, as consumers are generally demanding less milk products. In addition, shifts in consumer demands away from fluid milk and towards cheese means that farmers are finding more of their milk priced at the lower Class III price and less at the higher class I price. These two factors have kept farm-level milk prices at relatively low levels for much of the last 20 years.

The future development of the dairy industry will likely continue the path established in the last 20 years. The number of dairy farms in the aggregate will continue to decline and their size will continue to grow from forces of technology and a continuation of consumer preferences away from fluid milk. Consolidation in the marketing sector will also continue along a similar path. Strategic alliances among marketing firms will be needed to maintain efficiency and manage costs. As such, those farmers that remain will find fewer buyers for their products.

Livestock Industry Practices

The beef industry consists of various segments of production. The function of this diverse industry is to produce a live beef animal from which high quality beef is ultimately delivered to the consumer. Cattle production enterprises include seedstock, commercial cow/calf, backgrounder/ stocker, or cattle finishing.

The seedstock or purebred sector of the industry helps set the course of the industry and cattle type 10 years into the future. Seedstock producers are the primary source of bulls and new genetics for the commercial cow/calf sector. It is extremely important for the purebred operator to be able to gauge the demands of the commercial industry to produce breeding cattle with marketability. The seedstock operator must also have vision and the judgment to anticipate the genetic demands of the beef industry in the future. From the time a purebred producer makes a breeding decision, it will be 4 to 4 1/2 years until the commercial offspring of that decision are processed into beef.

For most purebred operations, the primary source of income is the sale of young bulls. Most often bulls are sold as yearlings, 12 to 18 months of age, to commercial operators or other seedstock breeders. Other sources of income can be the sale of young breeding females, as well as the strategic marketing of cows, cow/calf pairs, and older bulls. Additionally, young cattle lacking the sufficient genetic merit or quality to be marketed as seedstock can be sold as commercial feeder cattle. The purebred sector generally demands a high level of capital investment per animal unit. To be competitive in selling seedstock, the operator must generally be committed to an intensive artificial insemination program. The use of artificial insemination allows the breeder to rapidly incorporate elite genetics into the herd's breeding program.

Purebred breeders might be grouped into two levels of performance. A small percentage of breeders within any breed are identified as elite breeders. The elite breeders seek to make significant change within the breed, which will ultimately impact the beef industry. The elite herds typically sell bulls, semen and females to other purebred breeders. A second and much larger category of breeders are multiplier herds. The multiplier operations utilize the genetics generated at the elite level to primarily produce bulls for the commercial cow/calf sector.

In terms of number of operations and land use, commercial cow/calf operations comprise the largest sector of the beef industry. Cow/calf operations maintain breeding females and bulls to produce an annual crop of feeder calves. The calves are typically weaned at 7 to 9 months of age, weighing 400 to 650 pounds. At weaning, these feeder calves may be sold to backgrounders or cattle feeders. The calves may also be retained on the farm or ranch on which they were raised and marketed later as heavier feeder cattle or may be sold as finished cattle. The cow/calf operation is a forage based enterprise that typically makes use of land that is of no use or marginal value to row crop production.

Backgrounding refers to the transitional phase in the life of feeder cattle between weaning and finishing. Not all feeder cattle pass through a definitive backgrounding enterprise. Many calves are sold directly off the cow/calf farm or ranch to cattle finishing operations, but a significant number of calves are backgrounded or "conditioned" for one to six months before being sent to feed yards. Backgrounding operations can serve several important functions between the cow/calf and finishing sectors. Backgrounders manage feeder calves through the stressful adjustment period of weaning, shipment, and diet change. It is during this weaning and transition phase that feeder calves seem most susceptible to respiratory disease, commonly referred to as "shipping fever." As the structure of the industry has moved toward larger commercial feed yards, the cattle finisher has become more reluctant to deal with the problems of freshly weaned calves. Backgrounders can also benefit from providing a repackaging service for the industry. Backgrounders commonly purchase calves in relatively small groups, transition them through weaning period, add weight to the calves, then package and market the feeder cattle in larger, more uniform lots. The resulting larger groups of backgrounded feeder cattle are generally more attractive to cattle feeders and stocker operators and bring a higher price than small lots of freshly weaned calves.

Stocker cattle operators are somewhat similar to backgrounders. Stockers are grown primarily on forages sometime between the time they are weaned and the point at which they enter the finishing stage in the feedlot. The aim of the stocker cattle operator is to add pounds cheaply with forage. Stocker operators may purchase either backgrounded cattle or calves at weaning. Cattle from the stocker phase typically go directly to the feedlot. The major resource critical to the stocker operator is an abundant source of high quality forage. Stockers generally require higher quality forage than a cow/calf enterprise.

Cattle feeding or finishing is the final stage of cattle production. Cattle feeders may receive young cattle ranging from freshly weaned calves to yearling cattle. They are fed a high grain diet until reaching a point at which they should produce a Choice or Select grade carcass. Cattle leaving the feedlot generally weigh in the 1000 to 1350 pound range and vary in age from 14 months to 30 months. Even heavy cattle are typically fed for a minimum of ninety days. The consuming public has grown accustomed to the taste of grain fed beef since the rapid expansion of the cattle feeding industry during the 1950's and 60's. Cattle feeding operations may range from just a few head, up to one time capacity of 100,000 head. Feed yards may own all the cattle on feed, may operate as a custom feedlot, or have a mix of cattle ownership. Since cattle on feed have the highest total dollars invested in them by the time they are marketed, cattle feeders are exposed to substantial price risk. Due to the price risk potential, the cattle feeding sector has shifted to more custom feeding. There has been particular growth in cow/calf operations retaining ownership of their calves through the finishing phase.

Virginia feeder cattle producers have a wide choice of marketing alternatives. Virginia benefits from an extensive system of commingled feeder cattle sales that benefit the smaller operation. The graded, commingled feeder sales operated by local feeder cattle

associations and the Virginia Cattlemen's Association allow the smaller producer to benefit from the price advantage of selling feeder cattle in larger, more uniform lots.

Limitations

With only a small percentage of the feeder cattle being finished in Virginia, the state's producers are dependent upon out of state cattle feeders for a market. The modest cattle feeding industry in Pennsylvania provides the closest market outlet for Virginia feeder cattle. With the exception of Pennsylvania, the last few decades have seen the major cattle feeding areas move farther away from Virginia. The feeder cattle producer must ultimately pay the cost of transportation to the feedlot.

Virginia's growing human population will increasingly provide challenges to the cattle industry. The demand for land on which to build homes and businesses will keep the price of land relatively expensive. Livestock producers may expect closer public scrutiny in the areas of water quality, animal well being and nuisance ordinances.

In its third year, the Virginia Quality Assured (VQA)feeder cattle program continues to be a successful alternative in offering buyers a certified value-added product. Over 3000 head of VQA certified feeder cattle were sold during 1999 at a distinct price advantage. The Virginia Quality Assured feeder cattle program was initiated by the Virginia Cattlemen's Association for those feeder cattle owners who believe in producing a value-added product. The value added is in the form of an improved health program and can additionally include improved genetics for growth. The VQA program has four levels of certification: Gold tag, Gold tag with "W," Purple tag, and Purple tag with "W."

Gold tag - Vaccinated against 7 strains of clostridial, IBR, BVD, PI3, BRSV and Pasteurella. Castrated, dehorned and healed. Heifers guaranteed open.

Gold tag with "W" - Same health program as Gold tag with the calves weaned at least 30 days and drinking from a water trough and eating from a feed bunk.

Purple tag - Same health program as Gold tag. Calves sired by bulls which meet minimum requirements for yearling weight EPD. Breed of sire identified on the tag.

Purple tag with "W" - Same health and genetic requirements as the Purple tag with the calves weaned at least 30 days and drinking from a water trough and eating from a feed bunk.

The VQA tagged feeder cattle were marketed through several different methods during the year. Many of the cattle were sold in commingled load lots through telo-auctions or in board sales during graded sales. The roughly 3100 head of VQA feeder cattle sold in 1999 ranged from 3-weights to a few 9-weights. Approximately 75% of the VQA cattle ranged from 500 to 700 pounds. When compared to similar weights, breeds, and grades of cattle in other special graded sales held the same week, the 1999 VQA cattle brought a premium of \$2 per hundredweight. The 1999 premium for VQA cattle was down from the first two years' prices and may have been the result of the distributed marketing

season last fall. Estimates to process cattle to qualify them for VQA certification run about \$6.50 per head including labor.

Three Year History VQA Feeder Cattle vs. Special Graded Sales

Steers	Heifers
Weight Premium \$/Cwt.	Weight Premium \$/Cwt.
500-599 lb.+ \$3.90	400-499 lb.+ \$3.21
600-699 lb.+ \$3.79	500-599 lb.+ \$3.12
700-799 lb.+ \$0.99	600-699 lb.+ \$2.81

Before producers go to the effort to VQA-certify calves, thought should be given to the marketing method for the cattle. Simply showing up at sale with a load of VQA tagged calves without previous contact with market operator is likely to lead to disappointment. Additionally, experience has shown that a VQA tag will tend not to help the sale price of inferior quality cattle. The Virginia Quality Assured feeder cattle program is less than three years old. The reputation of VQA cattle is now being established with potential buyers. The buyer feedback to this point has been basically excellent. Effort is being devoted to specifically follow up with buyers of VQA cattle to insure the program is truly generating value-added feeder cattle.

Historically, livestock producers have been least likely among agricultural producers to market their production through cooperatives. The primary livestock marketing cooperatives are regional livestock marketing cooperatives, which coordinate live animal marketing, and are members of the National Livestock Producers Association (see www.nlpa.org); and Farmland Industries, which slaughters and processes hogs and cattle through its Farmland Foods and Farmland National Beef Packing subsidiaries (see www.farmland.com). These cooperatives, though, are traditional in the sense that membership is open and members are not obligated to deliver a specified amount of their production.

Examples of new generation cooperatives in the livestock industry are limited. The primary successes have been North American Bison Cooperative (a model even though bison are not technically classified as livestock) and U.S. Premium Beef, which is a partner with Farmland Industries in Farmland National Beef Packing. In addition CROPP (Coulee Region Organic Produce Pool, also known by their brand name Organic Valley) markets organic meat for their members. In addition, there are a number of very small cooperatives that are marketing to local niche markets, however, our information on these groups is limited.

Recently, a number of pork marketing cooperatives have been formed based on the new generation concept. However, the operations of these groups have been limited. Iowa Premium Pork is currently offering live animal marketing and risk management services to their members through one of the regional cooperatives discussed above. American Premium Foods is doing a limited amount of custom slaughtering. Prairie Farmers Cooperative is building a slaughter and processing facility in Dawson, MN with an

annual capacity about 70,000 head. Mountain States Lamb Cooperative is a similar example from the sheep industry.

Some groups have formally incorporated, only to be dissolved after they failed to raise sufficient capital (Northern Plains Premium Beef) or were unable to develop joint ventures (Sunbelt Pork Cooperative) necessary to the success of the project.

“Getting Started in the Cattle Business in Virginia”

Authors: Bill R. McKinnon, Extension Animal Scientist, Virginia Tech; and Henry S. Snodgrass, Extension Farm Business Management Agent, Virginia Tech

Beef Quality Corner, Livestock Update, February 2000,
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Grain and Oilseed Sector

Firms in the grain and oilseed sector perform a number of functions including origination, storage, transportation, domestic and international merchandising, and export operations. These operations have changed little over the last years, although the number and structure of firms has changed as have the demands on the firms marketing and handling grain. In some ways, the grain sector will change more in the next decade than it did in the last century.

The two dominant trends in the U.S. grain sector are consolidation and value-added commodity marketing. Grain handling and transporting firms have consolidated in number and ownership. In 1982, more than 9,100 grain elevators but current estimates suggest the number is less than 8,000 are now operating. The same consolidation and increased concentration phenomenon is occurring with domestic merchandising, export merchandising and grain origination staffs, export elevators, barge lines, and terminal elevators. Along with fewer grain elevators, the number of firms controlling marketing and processing facilities has dwindled and their market power has increased. For example, the 4 largest flour milling companies now produce over 65% of the flour as compared to only 34% in the 1980s. Likewise, the soybean processing industry has experienced a similar shift. The market share of the four largest firms has expanded from 51% in 1982 to 76% in 1990, with all but a small proportion of the increase due to mergers and acquisitions.

At least two interrelated factors are driving the grain- related industries toward two quite different strategies but similar market structures. First, consumers have become more discriminating buyers not only of grain products, but of all products including grain and oilseed-based items. The baking industry alone now launches at least 1,000 new products a year in attempts to satisfy increasingly sophisticated consumers. Second, genetic engineering is allowing for the development of user-specific traits and attributes which satisfy specific consumer demands. Because of these major changes, the grain handling sector is moving away from a "commodity" system into a "product" system. A product driven system has the disadvantage of more costly transactions among marketing firms because of extensive grading, handling, and monitoring. As such, grain handling firms are able to lower costs through consolidation and mergers with other firms.

As the existing grain marketing system adjusts to these forces, the product market will become increasingly important, not only as a generator of profits, but also for its influence on the behavior of those participating in commodity markets. There will be many players in these two markets, but three major types of participants appear to be surfacing: seed companies, food manufacturers, and global bulk commodity trading firms.

Seed companies are becoming important contributors of new technologies, mainly in the form of attribute- specific varieties. Their high R&D cost output will necessitate implementation of innovative marketing approaches to a well-defined customer base.

Market segments might include the end user (green-popcorn-type products); processors seeking specific manufacturing characteristics such as soft-textured, thin-pericap kernels; cost and environmentally sensitive producers demanding pest-resistant varieties; or economic developers needing special growing-condition attributes. Keys to success for these seed companies controlled by chemical and pharmaceutical firms will be sale economies in research and the ability to extract returns from differentiated products. Pursuing these success factors will necessitate identity-preserved product distribution and marketing channels. Developing these channels might be accomplished through strategic alliances, administered pricing, and tightly controlled production and marketing systems. Vertical integration, joint ventures, and production and market contracting will be strategic structural tools employed to accomplish the risk- sensitive return-on-investment objectives.

Food processors, in attempting to meet the needs of an increasing number of segmented markets, will adopt new search, monitor, and control information technology, flexible manufacturing approaches, and alliances with specific attribute-sensitive suppliers. Their sourcing alliances might stretch all the way back to the attribute-design breeding activities within the seed companies. As product attributes attain recognizable property rights, a more vertically coordinated sourcing channel will be needed to preserve product identity. These channels will necessitate improved coordinating methods, including resource and production contracting, and backward integration into storage and handling functions.

The move toward specialized product and commodity markets will increasingly define the importance of seed companies, food manufacturers, and global bulk commodity trading firms. Of course, many service firms will emerge as new functions are identified and performed. But in general, the firms that survive will be those that create a position in the end-use market and back it up with an efficient system for producing and handling agricultural raw materials. These leading firms will have minimized their production and transaction costs by managing risks through well-designed, information-intensive governance structures. Economics suggests that for the foreseeable future these governance structures will tend more toward vertical coordination and negotiated pricing than the open price system. This means that, at least during this phase in the evolution of the marketing system, grain and oilseed producers will find themselves in a more vertically coordinated global food system.

Produce Industry Practices

The produce industry is one of the most dynamic of our agricultural and food industries. Produce is unlike others where the commodity is highly perishable, consumer preference is highly critical, and prices can drop downwards or spike upwards dramatically in hours time.

Mergers, acquisitions, and internal growth among grocery retailers, largely since 1996, have increased the share of grocery store sales accounted for by the top food retailers nationwide. Similar consolidation is occurring among food wholesalers. At the same time, new packaged and branded produce items are gaining acceptance with consumers and vying for shelf space in the supermarket produce department. These are among several dynamic forces that are affecting change in produce markets and market channels.

Technological innovations, changes in consumer preferences, and globalization of the produce industry have affected the volume of sales, price, and quality of many fresh fruits and vegetables. Electronic commerce and vertically integrated computer networks have allowed grower shippers and retailers to improve communications in marketing produce, saving on inventory control and reducing shrinkage. Atmosphere controlled cargo and remote monitoring systems have extended the shelf life and quality of perishable products. As a result, the supermarket produce department has made way for year-round varieties, precut produce, and more packaged and branded items. These changes are likely to have profound effects on the way the produce industry is organized and the way it conducts businesses.

Per capita consumption of fresh produce increased 12 percent during 1987-97. Consumers, responding in part to increased health concerns, are demanding year-round supplies of fresh produce. Rising incomes and time demands have spurred consumer acceptance of fresh-cut, quick to prepare products.

Vegetable consumption has increased significantly on a per capita basis in the last decade. The exceptions are cauliflower, celery, green peas and head lettuce, which have seen per capita consumption fall since 1990. For head lettuce, the change in consumer preferences can be attributed to a substantial increase in Romaine and leaf lettuce varieties. While per capita consumption has generally increased for most of the vegetables, the majority of the increase can be attributed to an increase in the consumption of fresh vegetables, and not necessarily processed vegetables. Indeed, potatoes are the only vegetable that has seen processed per-capita consumption outpace fresh consumption in the last 10 years, largely as a result of the growing demand for french fries.

For fruit, per capita consumption has generally increased, although the magnitude of change is generally lower than that for vegetables. However, like vegetables, there is a trend toward relatively higher consumption of fresh as opposed to processed fruits. While most of the fresh fruits have seen higher per-capita consumption in the last 10 years, there

are some important caveats. Notably, apples, peaches and grapes have seen a decline in fresh consumption in the last 10 years. During the 1989-98 period, the per capita consumption of apples dropped 10%, peaches 17% and grapes 8%. The reason for this drop in the more traditional fruits is that consumers have a greater choice of fresh products to pick from. For example, the per capita consumption for the same period of pineapples increased 43%, avocados 29% and strawberries 26%.

While there are no guarantees that the trends of the past will continue into the future, it seems likely that consumer preferences for fresh fruit and vegetables will likely persist as the U.S. population ages. Older Americans are becoming "healthy eaters" because they tend shift to foods, which may prevent heart disease and cancer. In fact, people in the 55-64 year old age group consume 39% more fresh fruit and vegetables than the national average. Therefore, as the proportion of the U.S. population grows older, the trend of higher fresh fruit and vegetable consumption should continue.

Traditional retailers are responding by expanding the size of their produce departments. Between 1987 and 1997, the share of produce moving through merchant wholesalers, including wholesale produce markets, declined while the share of shipments to large self-distributing grocery retailers increased. As a result there was a major trend in wholesaler consolidation and today there are approximately 50% fewer wholesalers on the markets. Merchant wholesalers have survived by becoming larger, performing more functions and consumer services, and handling a larger array of specialty produce items.

As food retailers consolidate and expend to take advantage of economies of size, more firms are introducing supply chain management practices such as firm wide purchasing and the use of information technologies to provide the continuous inventory replenishment and individual store oversight. These practices may lower marketing and distribution costs of produce as well.

Industry consolidation, the introduction of new technologies, changing consumption patterns, and new marketing and trade practices are important dynamic forces that are likely to continue to shape produce markets and market channels in the future.

The super chain stores with their own independent warehousing, cold storage, and food distribution centers have professional staff that includes buyers, who encourage growers to ship direct. Growers who provided consistent volume, packaging and grading, to the chain stores, received improved prices and long term relationships. With improved technology in the field, harvesting, packaging, refrigeration, and transportation, growers from all over the country and world can reach markets that were once not accessible in a matter of one or two days.

Along with the increase in restaurants and fast food came the increased demand and cost for labor. As a result, this increased the demand for value added, fresh cut, and ready to eat prepared foods. The past 10 years has seen a major increase in value added processed foods not only at the wholesale level, but at the retail level as well.

The health conscious more educated consumer has also increased the demand for local community retail farmers markets. The past 10-15 years, there has been a phenomenal growth in retail markets. This is a place where not only are they purchasing directly from the farmer, but it puts them more in touch with their heritage that they have lost touch with to a great degree. They are able to receive a high quality product and at the same time be able to ask questions about the crop and how it was produced. The more progressive farmers are now providing home recipes for their crops, providing that additional service.

These markets for the most part are not expensive structures, but strategically located, heavily advertise, temporary markets. Consumers may visit a market once, maybe twice a week. The markets are organized where each day of the week, certified farmers will congregate at a particular location. Each day of the week the market will be located in a different suburb to take advantage of the entire retail demand and their buying patterns. The community then shops that day and most farmers are sold out by midday. *“Every week, spring through fall, several sites throughout Fairfax County become bustling marketplaces for farmers, residents and employees of our communities. Mere paved surfaces spring alive with the abundant sights, sounds, smells, and colors of an open air produce market. The markets are a return to a way of life once commonplace for many of our parents and grandparents.”* (www.co.fairfax.va.us/parks/farm-mkt.htm) Those markets that conduct seasonal festivities, advertise and promote have generated strong retail trade.

The Food Quality Protection Act of 1996 has had the most profound impact on the production practices of fruits and vegetables than any other piece of legislation. Simply put, the reregistration process with the new tolerance levels and reduction in benefits will and has reduced the number and types of pest management tools for the agricultural community. Some of the more traditional farm chemicals like the organophosphates will no longer be available for use.

For example, a majority of the apple growers on the east coast have not expanded their production, but are just maintaining what they already have. With the foreseen loss of some of their primary pest management tools, apple growers which have previously gone to the dwarf tree root stock in the past are now reverting back to the mid size trees. The primary reason, the pest management tolls for blight that the dwarf trees are very susceptible to, are being lost. So the apple growers are going to the more disease resistant trees.

In addition to the FQPA of 1996, the use of methyl bromide, a soil fumigant, has to be completely phased out by 2005. Methyl Bromide is used in the production of tobacco, and fruits and vegetables. Methyl Bromide is very efficient and effective in the control of soil nematodes and other soil pests, especially in hot moist climates like Florida. To date, there are no similar comprehensive alternatives. For example, methyl bromide is a must for strawberry growers in Florida. If no alternatives are developed, this could create opportunities for growers farther to the north where the cold winter climates destroy potential pests.

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PRODUCE TRENDS

What does the future hold for the produce industry and what will the market segments look like? The Packer conducted a comprehensive survey of the produce industry to try and determine where the industry was headed. The following are some excerpts from this study “Fresh Forward,” The Packer, Vance Publishing Corporation, 1999, that provide some insight as to what the future will hold.

- Megaretailers, price pressure, contracts, free trade, technology, consolidation, food safety and government regulation have set the stage for a complex and competitive produce marketplace in the new millennium.
- “With advances in information, packing and handling technology and the need to gain control over quality from a food safety and eating quality perspective, chains are going to want to do everything they can to gain control over all elements of quality, and that’s going to lead to more of them working with only key suppliers.” Says Roberta Cook, marketing economist with University California Davis.
- Consumers will challenge the industry to monitor all of its practices more closely. Of all the issues bearing down on the industry, food safety probably will be the one to attract the most attention of regulators, legislators, consumers and consumer interests groups. The risks of microbiological contamination in food will lead to more attempts to regulate how produce is handled.
- Retailer consolidation will be one of the biggest forces driving change in the new century. “Soon 5 companies, Megaretailers will account for half of all grocery sales,” says Thomas Zaucha, President of the National Grocers Association, Reston, VA.
- Consumers spend 44 percent of their total food dollar away from home, and the National Restaurant Association predicts that share will rise to 53% by 2010.
- Produce sales will grow to 15% of total supermarket sales, up from about 11 percent today. The majority of produce departments in 2005 will stock 600 produce SKUs, up from the current average of about 507. Annual retail produce sales, now at \$35 billion, will continue to rise and top \$50 billion. Produce sales will account for 25% of supermarket profits, up from 17% today. The fastest-growing segment of the produce department today is the premium quality area. Organic fresh produce sales will surpass 5% of department sales, up from 2 %. Display space dedicated to produce will expand from 13 percent of a supermarket square footage to about 18%.
- Value-added fresh produce will account for 25% of produce department sales, up from 10-15 % today. More cut fruits and vegetables will account for much of that growth.

- Nearly all retail organizations will bypass wholesale markets and, instead, will purchase directly from grower-shippers. Direct buying will account for 75% of all retail and foodservice produce buys, up from roughly 50%.
- Direct relationships between large retail and foodservice buyers and grower shippers increasingly will dominate the produce supply pipeline.
- Only those who have the ability to mesh with buyers and their systems will be the ultimate winners. Supermarket retailers will eventually do business with only a core group of suppliers who offer a broad range of produce and are technologically ready.
- Contracts in which price/volume specifications are ensured long term will become the basis for half of all supermarket produce purchasing, up from 15% today.
- As retailers consolidate, more grower shippers are just going to want to lock in the business with them and will probably go to contracts if necessary and forgo the possibility of taking advantage of higher markets.
- Grower shipper survival won't depend solely on an ability or willingness to change systems and procedures. It also will hinge on the ability offer the products and services buyers and their customer's demand. Product variety, quality, integrity, and reliability will be key to grower shippers becoming long-term suppliers.
- Most grower shippers will expand their sourcing capabilities to include other regions with different climates as a way to offer a more continuous supply.
- Grower shippers also will need increased import capabilities to remain competitive.
- Vendor managed inventory services will be a prominent outgrowth of increased electronic communications. The growth of electronic data interchange (EDI) will help drive category management programs. Detailed information on product sales, particularly at the retail level, will be transmitted in real-time between buyer and seller. Such information provides the backbone of category management programs, which will guide retailers in making decisions about space allocation.
- The consumer, being the greatest driving force of change, is expected to consume 290 pounds of *fresh* fruits and vegetables per year by 2005.

Agricultural and Community Development Services conducted a regional market assessment for the Maryland Wholesale Food Center in the spring of 2000, from Virginia to New Jersey, following the I-95 transportation corridor. Key to our findings was that food purchasing is still a relationship based business and that growers/regions with strong ties to markets will be well positioned for success. This success will also be predicated on stronger food safety programs and competitive products.

The study also noted that value added foods are one of the fastest growing segments in the region. Thirty-eight % of the respondents were engaged in some type of value added food production with an additional 21% expecting to process foods within the next five years. Seventy-three percent of those processing foods expect to expand their product line. Of those not interested in processing foods, 33% believe that there is insufficient market, 33% lack appropriate facilities, 13% lack capital, and 20% do not have an interest in value added processing.

The study revealed that wholesalers, retailers and restaurateurs all were interested in making direct purchases from farmers. Farmers who want access to these markets must pay consistent attention to packaging, grading, sanitation and food safety because product quality is a very high priority for these buyers.

Greenhouse and Nursery

Value of Floriculture and Environmental Horticulture Crops Continues To Rise

Grower cash receipts for U.S. floriculture and environmental horticulture crops, as estimated by USDA's Economic Research Service (ERS), reached \$12.1 billion in 1998, up 2 percent from the previous year. The value of production has grown an average \$440 million a year since 1991 when grower receipts were \$9.0 billion. Cash receipts for products from the environmental horticulture sector rose from \$5.8 billion in 1991 to \$7.7 billion in 1998. This category includes trees, outdoor plants, bulbs, turfgrass, and ground covers except bedding and garden plants. Cash receipts for some categories of the floriculture sector also posted substantial gains, particularly bedding and garden plants, which jumped from \$1.2 billion in 1991 to \$2.1 billion in 1998. Potted plants (flowering and foliage varieties used indoors) registered moderate gains since 1991, increasing from \$1.4 billion to \$1.7 billion. Domestic growers realized modest gains in cash receipts for cut flowers and cut cultivated greens in 1998, but their receipts were down from \$658 million in 1991 to \$639 million last year. Ever increasing volumes of imports are taking a larger share of the U.S. floral market. The domestic grower share has fallen from 65 percent in 1991 to 47 percent in 1998.

Grower cash receipts for all floriculture crops (cut flowers, cut greens, potted plants, and bedding and garden plants) increased 6 percent from 1997. Receipts for cut flowers increased 3 percent, while receipts for cut greens jumped 9 percent. Receipts for potted flowering plants were up 3 percent and potted foliage plants climbed 4 percent. Bedding plant receipts rose 8 percent while all other outdoor landscaping plant receipts, including nursery stock and sod, continued steady.

Retail Expenditures Hit \$203 Per Capita

In 1998, retail expenditures for all floriculture and environmental horticulture products, as estimated by ERS, reached \$54.8 billion, or \$203 per capita. This is 3 percent above the previous year and 37 percent higher than in 1991. Expenditures for cut flowers and cut greens increased \$335 million to \$8.5 billion (\$31.60 per capita). Potted flowering plant expenditures increased \$135 million to \$3.9 billion (\$14.60 per capita), while expenditures for potted foliage plants went up \$191 million to \$3.5 billion (\$13.10 per capita). Expenditures for bedding and garden plants rose 8 percent to \$6.3 billion (\$23.50 per capita). Retail expenditures for environmental horticulture crops (nursery plants, trees, shrubs, bushes, bulbs, ground covers, and turfgrass) reached \$38.8 billion, (\$120 per person).

Floriculture Production Area, Sales Increase, Grower Numbers Also Higher

Commercial production of floriculture crops as surveyed annually by USDA's National Agricultural Statistics Service in 36 major states reached \$3.93 billion in 1998, up slightly from 1997. This includes all growers with \$10,000 or more in sales of floriculture crops. California was again the leading state with crops valued at \$769 million, down 3 percent for the year. Florida was down slightly from 1997 with \$654 million in wholesale value. The two states accounted for 36 percent of the total value. Of the 36 states surveyed, 21 showed increased value over the previous year. The top five--

California, Florida, Michigan, Texas, and Ohio--accounted for \$2.02 billion in sales of floriculture crops, 51 percent of the total. Growers with sales exceeding \$100,000 for the year accounted for 91 percent of the total, at \$3.56 billion. This group comprised 36 percent of the total number of growers.

The number of floriculture crop growers surveyed totaled 14,308 in 1998, compared with 1997's revised count of 12,717. Those with sales of \$100,000 or more dropped from 5,244 to 5,177 due to a decline in growers with more than \$500,000 in total sales. The two smallest size groups (sales of \$10,000-\$19,999 and \$20,000-\$39,999) showed large increases. Grower numbers in all other sales groups declined from 1997 with the exception of the \$100,000-\$499,999 group, which gained 7 percent.

Covered area for floriculture crop production in 36 major states in 1998 totaled 1.07 billion square feet, up 15 percent from 1997. All growers with sales over \$10,000 increased area used in production. All types of area increased, including glass greenhouse cover, fiberglass, film plastic, shade and temporary cover, and open ground. Greenhouse space accounted for 61 percent of the total covered area with 654 million square feet, up 22 percent from 1997. Film plastic structures increased 30 percent to 463 million square feet. Fiberglass and other rigid plastic covers were up 7 percent for the year while glass greenhouse area increased 5 percent. Shade and temporary cover constituted the remaining 420 million square feet of covered area, up 7 percent from 1997. Open ground use totaled 46,763 acres, 32 percent higher than in 1997.

Cut flowers: U.S. consumption (total use) of carnations, as estimated by ERS, declined in 1998 to 1.2 billion stems, or 4.3 stems per capita. Imports accounted for 92 percent of total consumption. Domestic grower sales and prices were generally lower. The import volumes of standard and miniature carnations were down while prices were steady to slightly higher. Consumption of cut roses was slightly lower last year at 1.3 billion stems (4.7 stems per capita). The import market share climbed higher to 77 percent last year. Domestic grower sales declined last year even though prices were higher. Import volumes of hybrid tea and sweetheart roses were higher while prices were mostly steady to lower. Consumption of cut chrysanthemums increased to 745 million stems (2.8 stems per capita). Imports accounted for 89 percent of total consumption. Domestic grower sales and prices were higher. Imports of standard and pompon chrysanthemums rose and prices remained steady. Domestic production of cut flowers other than the major cuts (roses, carnations, chrysanthemums, and gladioli) has been trending upward. However, the value of domestic production of the all other cut flowers category in 1998 fell to \$238 million, down 13 percent.

Cut cultivated greens: U.S. consumption of cut cultivated greens in 1998 was nearly 2.2 billion stems. About 17 percent of the total was imported. Leatherleaf ferns accounted for more than 62 percent of the total stems purchased, with chamaedorea accounting for 14 percent, and all other types of cut greens rounding out the remainder. Nearly all U.S. leatherleaf production is in Florida, where year-to-year output has been very constant.

Potted flowering plants: Consumption of most varieties of flowering plants was higher in 1998, continuing an upward trend. However, units sold and dollar value of sales were lower for many potted flowering plants including poinsettias, Easter lilies, orchids, cyclamen, florist chrysanthemums, florist azaleas, African violets, and flowering hanging baskets. Kalanchoes and the all other flowering potted plant category were higher. Grower prices for most varieties of potted flowering plants were mostly steady or unchanged.

Potted foliage plants: Although sales of potted foliage plants were up last year, sales of foliage hanging baskets were lower. Consumption of both categories has been fairly constant over the past 8 years. Area in production and the value of grower sales are nearly unchanged since 1991.

Bedding and garden plants: Most varieties of bedding plants (vegetable or flowering type) sold in pots recorded increased unit sales and a higher value of sales. Sales of flowering hanging baskets were lower for geraniums and impatiens, but higher for petunias and the all other hanging baskets category. Units sold and dollar sales of bedding plants (flowering and vegetable types) sold in flats were lower in 1998. Prices for bedding and garden plants were mixed, with some higher and some lower.

U.S. Remains a Net Importer of Greenhouse and Nursery Products

The value of U.S. imports of greenhouse and nursery products reached \$1.1 billion last year, up \$77 million from 1997. Cut flowers and cut greens accounted for 64 percent of the value, and were mostly imported from Latin America and the Netherlands. The remaining 36 percent was mostly nursery products such as bulbs and propagative plant materials, but included some potted flowering and foliage plants that were imported mostly from Canada. The United States exported \$284 million in greenhouse and nursery products in 1998, up from \$261 in 1997. These exports were mostly nursery products, such a specimen trees and foliage plants shipped to Europe.

Source: 1999 U.S. Floriculture and Environmental Horticulture Report, USDA, ERS.

Equine Industry

The equine industry in Genesee County is very small, but growing due to the proximity of significant concentrations of performance and pleasure horse activities. However, accounting for both the nature of this industry and its economic impacts are limited and subject to debate. This situation is caused by the inability of researchers to clearly define and survey the industry.

The structure of the equine industry exacerbates this problem because it is divided into several markets:

1. Racing Horses (Examples)
 - a. Thoroughbreds (Saddle)
 - b. Standardbreds (Harness)
2. Working Horses (Examples)
 - a. Draft Horses
 - b. Police Horses
3. Performance Horses (Examples)
 - a. Foxchasing
 - b. Dressage
 - c. Hunter/Jumper
4. Pleasure Horses (Examples)
 - a. Trail Riding
 - b. Pony Clubs

Few efforts have been made to evaluate this industry beyond its impact through racing and specific leisure activities such as trail riding. While these research efforts have been spotty, most indicate that the equine industry contributes significantly to the agricultural economy through its expenditure patterns. Much of this impact comes from breeding, training, farriers, veterinary services, equipment, feed, supplies, events, and other services that also support more traditional agricultural operations. Despite such evidence, most equestrian operations are generally not considered an agricultural activity.

The ACDS, Inc. study team, while it recognizes that equestrian activities are marginal agricultural uses in Genesee County, found that equestrian operations from other Western New York jurisdictions have relocated or are considering expansion into Genesee County to take advantage of lower land costs and easy access to Rochester and Buffalo. As this use increases, it may put pressure on existing agricultural uses where development of higher value residences is occurring.

Hazard Analysis and Critical Control Point (HACCP)

Changes in consumer demand combined with a new regulatory approach to managing public health dictate process and facility improvements in the food marketing and distribution system. While these changes will not affect all facets of the industry, the inclination of most firms is to be competitively positioned to profit from heightened food safety concerns.

The primary change in food safety management is the early adoption of Hazard Analysis and Critical Control Point (HACCP) planning in both fresh produce marketing and value-added processing. Despite the fact that the produce industry is not subject to mandated HACCP planning, many institutional and large wholesale buyers have made it a requirement. In support of this, the Food and Drug Administration, the United States Department of Agriculture, and the Centers for Disease Control have issued a Guide for Industry bulletin entitled “Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables.” The Guide specifically addresses food safety within packing facilities and transportation which many professionals within the industry feel will become the basis for future regulations.

In addition to the Guide, the Food and Drug Administration (FDA) is responsible for inspecting food plants that manufacture pack, and hold produce. FDA authority and guidelines are detailed in Title 21, Volume 2, Parts 100-169 of the Code of Federal Regulations. Part 110 sub-part B relates directly to the design and maintenance of facilities engaged in manufacturing and is directly related to facility planning.

Together, the Guide and Title 21 regulations are instructive in regards to facilities, maintenance, and hygiene as follows:

Facilities: *Plant construction and design must support sanitary operations and facilitate maintenance.*

- Provide sufficient space for the placement of equipment and storage of materials as is necessary for sanitary production of food.
- Permit the taking of proper precautions to reduce the risk of food contamination through design, operating practices, and food safety controls.
- Constructed to be easily cleaned, kept in good repair, has adequate unobstructed workspace, and is constructed with food grade materials.
- Provide adequate ventilation or control equipment to minimize odors and vapors.
- Provide adequate lighting in all areas.
- Provide screening to protect from pests and airborne contaminants.
- Provide a clean area for storing new containers.

Maintenance

- Maintain an area for disposal, repair, cleaning, and sanitization of containers and pallets.

- Maintain an area to remove as much dirt and mud as practical from fresh produce outside of packing facilities or packing areas.
- Maintain the cooling system to ensure proper functioning.
- Clean product storage and packing areas regularly.
- Keep machinery and equipment that comes into contact with food clean.
- Establish a pest control system.
- Maintain the grounds in good condition.
- Maintain facilities regularly.

Hygiene

- Promote good hygienic practices.
- Provide clean properly supplied, and conveniently located toilets.
- Keep all facilities clean and free of debris.
- Contain and treat any effluent, storm water, and/or sewage leaks.

Food Quality Protection Act of 1996

In 1996, Congress unanimously passed landmark pesticide food safety legislation supported by the Administration and a broad coalition of environmental, public health, agricultural and industry groups. President Clinton promptly signed the bill on August 3, 1996, and the Food Quality Protection Act of 1996 became law (P.L. 104-170, formerly known as H.R. 1627).

EPA regulates pesticides under two major federal statutes. Under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), EPA registers pesticides for use in the United States and prescribes labeling and other regulatory requirements to prevent unreasonable adverse effects on health or the environment. Under the Federal Food, Drug, and Cosmetic Act (FFDCA), EPA establishes tolerances (maximum legally permissible levels) for pesticide residues in food

For over two decades, there have been efforts to update and resolve inconsistencies in the two major pesticide statutes, but consensus on necessary reforms remained elusive. The 1996 law represents a major breakthrough, amending both major pesticide laws to establish a more consistent, protective regulatory scheme, grounded in sound science. It mandates a single, health-based standard for all pesticides in all foods; provides special protections for infants and children; expedites approval of safer pesticides; creates incentives for the development and maintenance of effective crop protection tools for American farmers; and requires periodic re-evaluation of pesticide registrations and tolerances to ensure that the scientific data supporting pesticide registrations will remain up to date in the future.

Highlights of the Food Quality Protection Act of 1996

Health-Based Safety Standard for Pesticide Residues in Food: The new law establishes a strong, health-based safety standard for pesticide residues in all foods. It uses "a reasonable certainty of no harm" as the general safety standard.

- A single, health-based standard eliminates longstanding problems posed by multiple standards for pesticides in raw and processed foods.
- Requires EPA to consider all non-occupational sources of exposure, including drinking water, and exposure to other pesticides with a common mechanism of toxicity when setting tolerances.

Special Provisions for Infants and Children: The new law incorporates language to implement key recommendations of the National Academy of Sciences report, "Pesticides in the Diets of Infants and Children."

- Requires an explicit determination that tolerances are safe for children.

- Includes an additional safety factor of up to ten-fold, if necessary, to account for uncertainty in data relative to children.
- Requires consideration of children's special sensitivity and exposure to pesticide chemicals.

Limitations on Benefits Considerations: Unlike previous law, which contained an open-ended provision for the consideration of pesticide benefits when setting tolerances, the new law places specific limits on benefits considerations.

- Apply only to non-threshold effects of pesticides (e.g., carcinogenic effects); benefits cannot be taken into account for reproductive or other threshold effects.
- Further limited by three "backstops" on the level of risk that could be offset by benefits considerations. The first is a limit on the acceptable risk in any one year - this limitation greatly reduces the risks. The second limitation is on the lifetime risk, which would allow EPA to remove tolerances after specific phase-out periods. The third limitation is that benefits could not be used to override the health-based standard for children.

Tolerance Reevaluation: Requires that all existing tolerances be reviewed within 10 years to make sure they meet the requirements of the new health-based safety standard.

Endocrine Disruptors: Incorporates provisions for endocrine testing, and also provides new authority to require that chemical manufacturers provide data on their products, including data on potential endocrine effects.

Enforcement: Includes enhanced enforcement of pesticide residue standards by allowing the Food and Drug Administration to impose civil penalties for tolerance violations.

Major Requirement – Consumer Right to Know: Requires distribution of a brochure in grocery stores on the health effects of pesticides, how to avoid risks, and which foods have tolerances for pesticide residues based on benefits considerations. Specifically recognizes a state's right to require warnings or labeling of food that has been treated with pesticides, such as California's Proposition 65.

Registration of Safer Pesticides: Expedites review of safer pesticides to help them reach the market sooner and replace older and potentially more risky chemicals.

Anti-Microbial Pesticides: Establishes new requirements to expedite the review and registration of anti-microbial pesticides. Ends regulatory overlap in jurisdiction over liquid chemical sterilants.

APPENDIX E:
FINANCIAL TOOLS SUMMARY SHEETS FOR GENESEE
COUNTY, NEW YORK

PROFILES OF PROPOSED FUNDING VEHICLES

The following are brief profiles of the various funding vehicles that are proposed for serving *Gazelles* in rural areas of Northern California.

PROFILE #1: AGGIE BONDS

FINANCE PROGRAM PROFILE <i>Program Development Worksheet</i>	
Program Name: Aggie Bond Program	Component: Long-Term Bond Financing
Program Description: Utilize tax exempt, small issue, private activity bonds to finance first-time and beginning farmers purchasing property and equipment. These bonds are generally referred to as Aggie Bonds and are defined in Section 147 of the Internal Revenue Code.	
Targeted Uses: <ul style="list-style-type: none">• Land acquisition• Capital improvements• Equipment and machinery• Other depreciable assets (Breeding Stock)	
Deal Size, Term, and Equity Requirement: Average deal size is expected to be \$250,000 or less and will require 10% equity.	
Benefits: <ul style="list-style-type: none">• Access to long-term capital for farmers with less the 5 years experience• Lower interest rates for borrowers• Community Reinvestment Act (CRA) credit for banks• Tax exempt status	
Key Elements: Aggie bonds are simple financial instruments that require minimum start-up and administrative expense. Authorization for an organization to issue bonds must be obtained from the State of California. <ul style="list-style-type: none">• May be used to purchase land and depreciable assets or construct buildings.• Borrowers must meet strict qualifying criteria as defined by the Internal Revenue Code.• GSVCN must be authorized by the state to offer tax incentives.• Private sector underwrites the deal.• Private sector bears all financial risk.• Bonds are privately placed, typically with the selling farmer or local financial institution.• Bonds may be used to satisfy Community Reinvestment Act requirements.• Program is expected to be revenue neutral.	
Possible Funding Sources: <ul style="list-style-type: none">• Private placements typically made with banks.	
Industry Sectors Served: <ul style="list-style-type: none">• Small scale, first-time farmers.	
Partnerships and Participation: Authorization to issue Aggie bonds in California currently rests with: Mr. Herb Aarons California Coastal Rural Development Corporation P.O. Box 2103 Salinas, CA 93902	

PROFILE #2: BLENDED FACTORING

FINANCE PROGRAM PROFILE Program Development Worksheet	
Program Name: Blended Factoring	Component: Participation w/ Existing Factor
Program Description: This program component expands the local base for higher risk accounts receivable financing by participating with existing asset based lenders or factors on receivable financing to technology, manufacturing and agriculturally related businesses.	
Targeted Uses: <ul style="list-style-type: none"> • Goods in process • Inventory • Shipping • Marketing • Sales 	
Business Profile: Early-stage business in technology, manufacturing and agricultural industry categories seeking a cost effective means to generate working capital.	
Deal Size, Term, and Equity Requirement: Deals will be limited to \$100,000 with terms extending no more than 1 year. There is no equity requirement. Factor's agreement secures the deal. Likely structure of 80% loan to value with limitations of 20% of accounts receivable allowed with any one customer.	
Benefits: <ul style="list-style-type: none"> • Provides short-term working capital alternative to credit cards and second mortgage type loans. • Helps the industry as well as individual businesses develop a track record with working capital financing. • Reduces cost of short-term capital 	
Key Elements: <ul style="list-style-type: none"> • Factoring agreement must be in-place. • Program takes no more than 50% of the factor's loan. • Blending program and factored rates reduces financing costs, and provides the factor with an acceptable rate of return. • Factor underwrites the loan. • Credit is not revolving. 	
Possible Funding Sources: <ul style="list-style-type: none"> • USDA, Rural Development loans or grants • Community Development Block Grant (CDBG) • Community Development Financial Institution Fund (CDFI) • Investments from established private financial institutions 	
Industry Sectors Served: <ul style="list-style-type: none"> • Distributors • Wholesalers • Retailers • Manufacturers 	

PROFILE #2: BLENDED FACTORING (CONTINUED)

FINANCE PROGRAM PROFILE <i>Program Development Worksheet</i>	
Partnerships and Participation:	<ul style="list-style-type: none">• Local and regional banks• Commercial finance companies• Factors
Other Issues:	<ul style="list-style-type: none">• Program success will focus on the factors' ability and willingness to underwrite receivables.

PROFILE #3: "ANGEL" BANKING

FINANCE PROGRAM PROFILE <i>Program Development Worksheet</i>	
Program Name: "Angel" Banking	Component: Debt with Royalties/Warrants
Program Description: The <i>Angel</i> Banking program will focus on providing debt capital to high-growth technology ventures that have received equity investments from approved <i>Angel</i> groups and/or <i>Angel</i> investors. The intent of the program is to provide additional sources of capital to finance the start-up and growth of technology ventures in areas of California that currently lack suitable sources of debt capital to finance early-stage companies. The investment(s) by the <i>Angel</i> investors will be considered during the underwriting process to make final credit decisions. Risk will be offset through royalties and/or warrants provided to the program in exchange for one or more of the following: lower pricing, extended terms, reduced interest rates, and/or less stringent collateral requirements.	
Targeted Uses: <ul style="list-style-type: none"> • Purchase Order Financing • Production scaling • Equipment and machinery purchases • Debt restructuring • Marketing • Prototype development • Research and Development • Material/input purchasing 	
Business Profile: Early-stage technology ventures that have received investment capital from approved <i>Angel</i> groups and/or investors. Companies receiving funds in exchange for warrants must demonstrate a viable exit strategy for all investors.	
Deal Size, Term, and Equity Requirement: Loan amounts not to 10% of the total loan fund with a maximum term of 10 years. Term will vary based on the product's time to market and/or expected life cycle. Equity requirements to be determined.	
Benefits: <ul style="list-style-type: none"> • Alternate capital source for higher-risk deals in areas of California not currently served by such a product. • Borrower allowed to retain more equity in the business by using a debt instrument. 	
Key Elements: <ul style="list-style-type: none"> • Requires <i>Angel</i> participation. • Program success requires flexible, but sound underwriting with limited exposure in any one technology sector. • Finances "soft costs" such as marketing and sales. • Program income will be used for future loans as well as seed capital for a future equity fund. • Royalty/warrant component will be utilized to compensate the fund for additional risk of providing early stage financing. • Royalty/warrant requirements will vary based on risk exposure and the stage at which program enters the deal. • Requires additional managerial support and oversight from program administrator as well as specific technology expertise on loan review committee. • Revenue neutral / revenue positive. 	

PROFILE #3: "ANGEL" BANKING (CONTINUED)

FINANCE PROGRAM PROFILE <i>Program Development Worksheet</i>
Possible Funding Sources: <ul style="list-style-type: none">• USDA, Rural Development loans or grants• Community Development Block Grant (CDBG)• Community Development Financial Institution Fund (CDFI)• Investments from established private lending institutions• Investments from Institutional and Private Investors
Industry Sectors Served: <ul style="list-style-type: none">• Agri-Technology• Biotechnology• Communications Technology• Computer Technology• Environmental Technology• Information Technology• Medical Device and Health Sciences• Micro-electronics and Semiconductors
Partnerships and Participation: <ul style="list-style-type: none">• Sierra Angels• North Bay Angels• Sacramento Angels• Regional investment banks• Regional and local banks• Private investors• Commercial finance companies• State and federal government agencies
Issues Requiring Additional Consideration: <ul style="list-style-type: none">• Buy-out provision for royalty agreements.• Legal structure of administering organization.• Valuation.• Investigation of preferred stock or convertible preferred stock program.

PROFILE #4: PURCHASE ORDER FINANCING

FINANCE PROGRAM PROFILE <i>Program Development Worksheet</i>	
Program Name: Purchase Order Financing	Component: Public/Private Participation
Program Description: This program component will provide short-term credit to finance working capital based on verified product purchase orders.	
Business Profile: Existing business unable to meet customer demand due to limited working capital availability. This business has limited capital reserves, and does not have sufficient access to appropriate short-term credit.	
Deal Size, Term, and Equity Requirement: Deals are expected to range from \$50,000 to \$250,000. Terms should be based on the product's production cycle not to exceed 18 months. No equity is required.	
Benefits: <ul style="list-style-type: none"> • Provides short-term working capital alternative to credit cards and second mortgage type loans. • Helps the industry as well as individual businesses develop a track record with working capital financing. 	
Targeted Uses: <ul style="list-style-type: none"> • Plant expansion • Professional services • Equipment and machinery purchases • Goods in process • Inventory • Shipping 	
Key Elements: <ul style="list-style-type: none"> • Allows manufacturer to use purchase orders as security for working capital loans. • Requires additional underwriting including validation of purchase order. • Loans are non-revolving and non-renewable. • Potential exposure with businesses operating in volatile market segments. 	
Possible Funding Sources: <ul style="list-style-type: none"> • USDA, Rural Development loans or grants • Community Development Block Grant (CDBG) • Community Development Financial Institution Fund (CDFI) • Investments from established private lending institutions • Bond issue 	
Industry Sectors Served: <ul style="list-style-type: none"> • Manufacturing • Supply and distribution 	
Partnerships and Participation: <ul style="list-style-type: none"> • Local and regional private lenders • Commercial finance companies • Factors 	
Other Issues: <ul style="list-style-type: none"> • May also wish to investigate an asset based lending guarantee program as a lower risk option. 	

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APPENDIX F:
PENDING NEW YORK STATE LEGISLATION

GOVERNOR ANNOUNCES NEW \$28 MILLION PLAN TO HELP FAMILY FARMS Page 1 of 3

FOR IMMEDIATE RELEASE:
January 12, 2001

GOVERNOR ANNOUNCES NEW \$28 MILLION PLAN TO HELP FAMILY FARMS

Package Includes New Tax Credits, Expansion of STAR, New Funds for Historic Barns

Governor George E. Pataki today announced that his 2001-2002 Executive Budget will include a new \$28 million package of initiatives that will make New York's top industry -- agriculture -- even more productive and competitive.

The Governor's plan includes a new farmland restoration tax credit, expansion of the STAR program to include all farmers, and expansion of the agricultural property tax credit. The package also includes a new historic home ownership assistance tax credit which would assist New Yorkers in purchasing and rehabilitating historic homes -- including farm houses.

"New York's farmers are the backbone of our economy and over the last six years we have worked to see that agriculture remains New York's number one industry," Governor Pataki said. "We have cut property taxes, slashed workers' compensation costs, and reduced energy costs for farmers.

"This new package will build on these initiatives, along with new measures such as Co-STAR, an innovative new plan that will complement the STAR program and bring county property tax relief to farmers. New York's farmers produce some of the finest products in the world, and we must continue to ensure that they are able to remain a vital part of New York's economy."

Lt. Governor Mary O. Donohue said, "Governor Pataki's 2001-02 Executive Budget will produce tremendous benefits for New York's critically important agriculture industry. By expanding tax credits and providing much-needed property tax relief, the Governor's package will continue our ongoing efforts to strengthen family farms throughout our State."

Creation of New Farmland Restoration Tax Credit

The Governor's Budget would create a new tax credit to encourage the development or restoration of farmland. The Farmland Restoration Tax Credit would provide a one-time tax credit for property owners who make certain improvements to their land, including soil improvements and fencing and silo rehabilitation.

Landowners making these new farmland investments are eligible for a new tax credit of up to \$10,000. This new measure would become effective beginning in 2002, with total savings for New York's farmers estimated at \$8 million.

Expansion of Agricultural Property Tax Credit

Governor Pataki's Budget would extend the agricultural property tax credit to cover rented farmland -- allowing land owners who rent their farmland to take advantage of this existing credit. The existing tax credit, created by Governor Pataki in 1996, allows qualified farmers to claim an income tax credit equal to the amount of school taxes they pay on the first 250 acres of farmland, plus one half of the school

GOVERNOR ANNOUNCES NEW \$28 MILLION PLAN TO HELP FAMILY FARMS Page 2 of 3

taxes they pay on the remaining acreage. This valuable credit currently saves farmers approximately \$20 million annually. Extending the credit to those who rent their farmland will result in an additional \$5 million in tax relief for farmers when fully implemented in 2002.

Expansion of Original STAR Program to All Farmers

Governor Pataki's historic \$2.6 billion STAR school property tax relief program is now providing New Yorkers, including farmers, with dramatic school property tax savings. In fact, with this year's increase in STAR, individual farmers will save on average, more than \$600 per year.

The Governor's 2001-2002 Executive Budget will include a measure to extend the STAR school property tax relief program to all farmers across the State. This proposal would allow farmers who operate farms that are held in corporate or partner ownership to claim the same STAR exemption as those farms that are privately held.

Many family farms are structured as corporations for insurance, liability and financial reasons and therefore can not take advantage of the STAR program, even though they may only employ a few family members and workers. This new measure will enable these small farms to have access to the Governor's STAR program beginning in the 2002-03 school year and is estimated to produce savings worth \$3 million when fully implemented.

Earlier this month in his State of the State address, Governor Pataki unveiled Co-STAR, another new initiative that would help farmers. Modeled after the STAR program, Co-STAR would provide income eligible seniors and farmers across the State with new county property tax savings. Under the program, the average farmer would save more than \$200 per year in county taxes.

\$2 million in New Funding for Historic Barns Program

The Governor's Budget will also contain \$2 million in new funding to restore and preserve historic barns and related agricultural buildings in New York. The New York State Barns Restoration and Preservation Program, created last year by Governor Pataki, will revitalize aging structures that represent the heritage of New York's working farms and improve landscapes enjoyed by residents and tourists alike.

Under the program, historic barn owners are able to access funds for a variety of capital repairs for agricultural buildings including barns, sheds and silos that are more than 50 years old. Eligible projects include repairs to roofs, foundations, walls, silos, and overall stabilization.

New Historic Homes Tax Credit

The Governor's Executive Budget will also include a new Historic Home Ownership Assistance Tax Credit that would provide an income tax credit for a portion of qualified rehabilitation expenditures made by a taxpayer to promote the rehabilitation or purchase of a historic home -- including farm houses. The credit would become effective in 2002 and save taxpayers an estimated \$10 million annually.

Since taking office, Governor Pataki has cut school property taxes for farmers; slashed workers' compensation rates for farmers; reduced energy costs on farms; strengthened agricultural district laws; introduced new marketing programs to promote homegrown products; and positioned New York to become the next member of the Interstate Dairy Compact.

Genesee County: Town of Byron Cost of Community Services Study

Town of Byron Cost of Community Services Study Genesee County, NY Table of Contents

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1.0 Executive Summary

Genesee County is one of New York State's most significant agricultural communities. The County's unique "mucklands" foster vegetable production while dairy farming remains a significant operation. After a slight decline in the early 1990's, real farm sales in Genesee County increased by \$26 million between 1992 and 1997. Over this time period, real crop sales increased \$16 million while receipts from livestock related products increased \$10 million.

The statistics bear that while the value of agricultural goods produced in Genesee County is increasing, the total number of farms and people who farm in the County is decreasing. In other words, farms are becoming larger, more productive, and controlled by fewer people. There is a generation of former farming families who have decided that they will not pursue a future in the agriculture industry. Their land has come under residential and commercial development pressure as urban sprawl increases in neighboring Erie and Monroe Counties. Many landowners have made the decision to subdivide their agricultural land and sell parcels for residential development.

Agricultural land is a non-renewable resource; once agricultural land is converted to residential or commercial use, it cannot be returned to agricultural productivity. The purpose of completing a Cost of Community Services Study (COCS) is to try to substantiate an important claim that could help protect agricultural land from future development. The COCS study attempts to prove that preserving agricultural land and open space within a community can have a positive impact on the local tax base.

A COCS Study was completed for the Town of Byron, New York as part of a County-wide Farmland Protection Plan prepared for Genesee County. According to the results of the study completed for Byron, the average ratio of dollars generated by residential development to services required was \$1.00 to \$1.30. In other words, for every dollar raised from residential revenues, the Town spent an extra 30 cents on average in direct services. These services include education, health and human services, fire safety, and public works. The average ratio for agricultural land, forest and other open space was \$1.00 to \$.49 cents; for every dollar raised in revenue the Town retained \$.51 cents.

Average Land Use Ratios for the Town of Byron, New York

Residential	Commercial/Industrial	Agricultural/Forest/Open Space
\$1.00: \$1.30	\$1.00: \$0.77	\$1.00: \$0.49

2.0 Introduction

2.1 Town of Byron Overview

The Town of Byron is a rural community with approximately 2500 residents; the Town is located between the City of Buffalo in Erie County and The City of Rochester in Monroe County. Byron is also located less than 10 miles from City of Batavia, the Genesee County seat. Byron has virtually no industry and limited commercial development within its borders. Over the past decade, agricultural land has been subdivided to accommodate new residential development; the municipality now functions as a “bedroom community” serving the urban centers of Rochester, Buffalo, and Batavia.

As Genesee County farms become larger, yet the number of farms becomes smaller, the Town of Byron has some important issues to address. The Town of Byron should measure the current financial contributions of major municipal land uses to determine their overall impact on the Town’s financial health. The Town must consider the cost of providing public services to each type of land use compared to the amount of revenue the Town derives from each land use. Completing a Cost of Community Services (COCS) Study can help the Town to make this determination.

2.2 What is a COCS Study

A COCS Study reorganizes local financial records of a community to determine the net effect of various land uses in a single fiscal period. The COCS study will compare costs and revenues from residential; commercial and industrial; and agricultural, forest and open land sectors to provide a snapshot of the financial contributions of current land uses to local governments.

Most COCS studies determine that agricultural and open lands generate more in revenues than they demand in municipal services. The purpose of completing the study for the Town of Byron was to determine whether the results would be similar to the majority of other COCS studies conducted in New York. The Byron COCS researched the fiscal profile of the community, assessed how revenues were generated and distributed by land use to determine the cost of providing services to residential, commercial/industrial, and agricultural/open space categories. Not surprisingly, the Study details the same basic revenue and expense dynamics: agricultural uses are a net contributor to the Town while residential uses consume more in services than they contribute in tax revenue.

Genesee County: Town of Byron Cost of Community Services Study

The following report summarizes the findings for the Town of Byron. The report is organized into four main sections: Introduction, Methodology, Findings and Discussion. The report also provides detailed tables, appendices and references.

2.3 Methodology

The objective of the COCS study is to compare Byron's annual income to the expense of providing public service for different land use sectors. The study is not intended to predict the future. Rather, the study represents a "snapshot in time" of costs versus revenues per land use type in Byron. For this study, Fiscal Year 2000 was chosen because it was the most recent year with a complete, adopted Town Budget. Budgeted appropriations and revenues were used because they approximate an average year's fiscal condition and will not be skewed by unexpected expenditures or revenues.

The methodology developed by the American Farmland Trust (AFT) was used to complete the COCS Study. AFT is a private, nonprofit membership organization founded in 1980 to protect the region's agricultural resources. AFT works to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment.

The COCS Study was conducted using these five major steps:

1. Meet with local sponsors

Working with local government specialists including the Town Supervisor, Town Tax Assessor and Town Clerk to define land use categories into:

- Residential
- Commercial/Industrial
- Agriculture and Open Space

Each property tax code was divided into one of the above land use categories. The list was approved and finalized by the Town Tax Assessor.

2. Collect Data

- Obtain relevant reports including:
 - Adopted Town Budget 2000
 - 2000 property tax and school tax rates
- Contact Appropriate Officials including:
 - Town Supervisor
 - Town Tax Assessor
 - Town Clerk and Tax Collector
 - County Sheriff
 - Town Fire Chief
 - County Real Property Tax Representatives
 - Byron-Bergen and Elba School Districts

3. Group Revenues and allocate them by land use

- Property Taxes
- Local Receipts
- State Aid
- Miscellaneous Receipts

4. Group Appropriations (Expenditures) and allocate them by land use:

- General Government
- Public Safety
- Home and Community Services
- Town Employees
- Interfund Transfers
- Highway Fund
- Sewer District (Special District)
- Fire District (2 Special Districts)
- School District (2 Districts)

5. Analyze data and calculate ratios

Genesee County: Town of Byron Cost of Community Services Study

1. Meet With Local Sponsors

The COCS Study was completed as part of a larger Farmland Protection Plan prepared for the whole of Genesee County. The Study was overseen by a Steering Committee comprised of various agricultural and governmental specialists. The Steering Committee selected the Town of Byron for the COCS study for the many reasons previously described: “urban sprawl” development pressure, declining number of overall farms, and the pristine rural character of the community.

2. Collect Data

To complete the COCS study, interviews with “local sponsors”, or the people who know most about the Town of Byron, were completed. Discussions were held with the Town Tax Assessor to divide each Town tax code into one of three land use categories: residential, commercial/industrial, and agriculture/open space.

An informal meeting between the Study Team, the Town Supervisor, and the Town Tax Assessor was also conducted. Each individual item of the 2000 Budget was reviewed and the requisite revenues and appropriations divided between the three designated land uses. The Town Clerk and the Collector of Taxes were also included in this conversation to ensure accuracy.

In addition to these local contacts, the Town’s Fire Chief; the Chief of the County Sheriff’s Department; the Genesee County Office of Real Property Assessment; and the Elba School District and Byron-Bergen School Districts were contacted for data and additional input.

3. Allocate Revenues by Land Use

The interviews conducted helped to allocate all 2000 anticipated revenues into the three land use categories. For each line item in the 2000 Budget, Town officials determined which land use, or combination of land uses, generated the funds. Items generated exclusively by residents would include Town fines and forfeitures, and moneys dedicated to the Town youth program. No revenue source was generated exclusively by commercial/industrial or agriculture/open space. The remainder of revenues were typically generated by a mix of the uses included sewer district rents, school taxes, highway appropriations, and fire district revenues.

4. Allocate Appropriations by Land Use

The interviews conducted helped to allocate all 2000 Budget appropriations into the three land use categories. For each line item, the land use – or combination of

Genesee County: Town of Byron Cost of Community Services Study

land uses – that requires the fund was determined. Items demanded exclusively by residents include expenses related to the Town youth program, library, museum, festivals, cemeteries and Census expenditures. There were no line items designated exclusively to commercial/industrial or agricultural/open space. The remaining line items were appropriated toward a combination of two or three land uses together. Examples include sewer district rents, highway expenditures, general government expenditures, home and community service expenditures, and Town employee expenditures.

Calculation of “fall back” percentages

Even after completing a thorough interview and research process, there are some line items that are difficult to allocate into land use categories. When this situation arose, a “fall back” land use breakdown was used based on the total assessed value for each land use related to the total assessed value within the Town of Byron.

5. Analyze Data and Calculate Ratios

Upon completion of all necessary interviews, information was entered into an Excel Spreadsheet program for analysis.

3.0 Findings

The COCS Study completed for the Town of Byron offers a “snapshot in time” for local and County decision makers to consider. The findings illustrate the current costs of servicing each land use type compared with the amount of revenue each land use type contributes the tax base. This initiative is not meant to be predictive nor to judge the intrinsic value of one land use over another. The uniqueness of the study is that it considers agricultural land and open space – land uses that are often ignored in other types of fiscal analyses.

Many proponents of growth often present farmland and other open lands as awaiting a “highest and best use”; this use is most often residential development. The COCS findings show the positive tax benefits of maintaining these lands in their current use. The cost of providing new residents with basic services is quite expensive. Education, fire services, police protection, road maintenance, public sewer and water are all expenses which must be evaluated along with a new residential development’s contribution to the tax base.

Similar to agriculture and open space, commercial/industrial land uses also provide far more in revenues than they demand in services. Yet new businesses require new workers. Often times, if the local market is not enough to satisfy demands, “urbanizing” will typically occur. New commercial development is typically followed by an increased demand for new housing, traffic congestion, and pollution.

The COCS Study is intended to encourage local and regional policy makers that the preservation of agriculture and open space has many economic consequences. Farmland not only pays property tax, but includes many additional economic multipliers in its own right. Farming is an industry that contributes to the local employment base and supports many other business both locally and regionally. Farming is also a cost-effective way to maintain a community’s rural character.

According to the results of the study completed for Byron, agricultural, open space, commercial, and industrial uses are important contributors to the Town’s fiscal health. This is demonstrated in the average ratio of dollars generated by residential development to services required which was \$1.00 to \$1.30. In other words, for every dollar raised from residential revenues, the Town spent an extra 30 cents on average in direct services. These services include education, health and human services, fire safety, and public works. The average ratio for agricultural land, forest and other open space was \$1.00 to \$.49 cents; for every dollar raised in revenue the Town retained \$.51 cents. For commercial and industrial uses, the Town retained \$.23 cents in excess of expenses.

Average Land Use Ratios for the Town of Byron, New York

Residential	Commercial/Industrial	Agricultural/Forest/Open Space
\$1.00: \$1.30	\$1:00: \$.077	\$1.00: \$.049

4.0 Revenue and Appropriation Spreadsheets

See attached Excel spreadsheets

5.0 Bibliography of Sources

American Farmland Trust References

ACDS References

Genesee County Planning Department

Town of Byron					
Appropriations 2000					
Appropriations		2000 Budget	Residential	Commercial/Industrial	Agriculture/Open Space
General Government					
	Town Board	13,200.00	3,300.00	3,300.00	6,600.00
	Justices	17,030.00	13,624.00	3,406.00	0.00
	Supervisor	8,800.00	2,200.00	1,760.00	4,840.00
	Auditor	1,000.00	800.00	100.00	100.00
	Tax Collection	3,280.00	1,968.00	328.00	984.00
	Assessors	14,050.00	5,620.00	7,025.00	1,405.00
	Town Clerk	24,419.00	17,093.30	1,220.95	6,104.75
	Attorney	10,000.00	4,500.00	2,000.00	3,500.00
	Personnel	11,933.00	9,546.40	2,386.60	0.00
	Elections	2,000.00	2,000.00	0.00	0.00
	Records Management	2,904.00	2,323.20	290.40	290.40
	Buildings	23,000.00	13,800.00	2,300.00	6,900.00
	Central Printing & Mailing	4,500.00	3,150.00	225.00	1,125.00
	Central Data Processing	2,500.00	1,750.00	125.00	625.00
	Special Items	33,393.00	23,375.10	1,669.65	8,348.25
	TOTAL	172,009.00	105,050.00	26,136.60	40,822.40
Public Safety					
	Constable/Bingo Inspector	1,000.00	1,000.00	0.00	0.00
	Traffic Control	6,000.00	4,500.00	300.00	1,200.00
	Control of Dogs	900.00	810.00	45.00	45.00
	Safety Inspections	6,400.00	4,800.00	320.00	1,280.00
	TOTAL	14,300.00	11,110.00	665.00	2,525.00
General Fund					
	Vital Statistics	1,085.00	868.00	54.25	162.75
	Drug Testing	300.00	90.00	30.00	180.00
	Superintendant of Highways	32,750.00	9,825.00	3,275.00	19,650.00
	Garage	3,200.00	960.00	320.00	1,920.00
	Street Lighting	12,000.00	8,400.00	1,800.00	1,800.00
	Veterans Service	600.00	600.00	0.00	0.00
	Park Program	6,600.00	1,650.00	0.00	4,950.00
	Youth Program	7,000.00	7,000.00	0.00	0.00
	Library	10,300.00	10,300.00	0.00	0.00
	Museum	2,500.00	2,500.00	0.00	0.00
	Historian/Celebrations	4,135.00	4,135.00	0.00	0.00
	Adult Recreation	3,000.00	3,000.00	0.00	0.00
	TOTAL	83,470.00	49,328.00	5,479.25	28,662.75
Home and Community Services					
	Zoning	5,200.00	3,120.00	520.00	1,560.00
	Planning	3,300.00	990.00	660.00	1,650.00
	Refuse and Garbage	31,000.00	21,700.00	3,100.00	6,200.00
	Conservation	0.00	0.00	0.00	0.00
	Cemeteries	500.00	500.00	0.00	0.00
	Census	50.00	50.00	0.00	0.00
	TOTAL	40,050.00	26,360.00	4,280.00	9,410.00
Employees					
	State Retirement	500.00	350.00	50.00	100.00
	Social Security	8,500.00	5,950.00	850.00	1,700.00
	Co. Workers Compensation	11,000.00	7,700.00	1,100.00	2,200.00
	Disability	500.00	350.00	50.00	100.00
	Hosp. And Medical Insurance	10,500.00	7,350.00	1,050.00	2,100.00
	Lieu of Medical Insurance	2,000.00	1,400.00	200.00	400.00
	Medicare	2,250.00	1,575.00	225.00	450.00
	TOTAL	35,250.00	24,675.00	3,525.00	7,050.00
Interfund Transfers					
	Capital Projects Fund	50,000.00	35,000.00	5,000.00	10,000.00
	TOTAL	50,000.00	35,000.00	5,000.00	10,000.00
TOTAL GENERAL FUND APPROPRIATIONS		395,079.00	251,523.00	45,085.85	98,470.15
	Highway				
	General Repairs	155,742.00	46,722.60	15,574.20	93,445.20
	Machinery	55,000.00	16,500.00	5,500.00	33,000.00
	Miscellaneous	7,500.00	2,250.00	750.00	4,500.00
	Snow Removal	119,000.00	35,700.00	11,900.00	71,400.00
	Employee Benefits	27,050.00	8,115.00	2,705.00	16,230.00
TOTAL HIGHWAY FUND APPROPRIATIONS		364,292.00	109,287.60	36,429.20	218,575.20
	Sewer District				
	Administration	8,000.00	6,400.00	1,600.00	0.00
	Collection Operations	16,765.00	13,412.00	3,353.00	0.00
	Treatment Operations	14,000.00	11,200.00	2,800.00	0.00
	Sampling & Testing	9,450.00	7,560.00	1,890.00	0.00
	General Operations	50,100.00	40,080.00	10,020.00	0.00
	Employee Benefits	6,500.00	5,200.00	1,300.00	0.00
	Debt Service	35,000.00	28,000.00	7,000.00	0.00
	Interest	19,430.00	15,544.00	3,886.00	0.00
TOTAL SEWER DISTRIC INCLUDING DEBT SERVICE		159,245.00	127,396.00	31,849.00	0.00

	Fire				
	District 1	46,500.00	41,850.00	2,325.00	2,325.00
	District 2	46,500.00	41,850.00	2,325.00	2,325.00
TOTAL FIRE DISTRICT APPROPRIATIONS		93,000.00	83,700.00	4,650.00	4,650.00
	School				
	Byron-Bergen	1,764,143.85	1,764,143.85	0.00	0.00
	Elba	84,411.68	84,411.68	0.00	0.00
TOTAL SCHOOL DISTRICT APPROPRIATIONS		1,848,555.53	1,848,555.53	0.00	0.00
TOTAL APPROPRIATIONS		2,860,171.53	2,420,462.13	118,014.05	321,695.35
PERCENT OF TOTAL APPROPRIATIONS		100%	85%	4%	11%
RATIO			\$1.30	\$0.77	\$0.49

Town of Byron					
Appropriations 2000					
Appropriations		2000 Budget	Residential	Commercial/Industrial	Agriculture/Open Space
GENERAL GOVERNMENT					
	Town Board	13,200.00	25%	25%	50%
	Justices	17,030.00	80%	20%	0%
	Supervisor	8,800.00	25%	20%	55%
	Auditor	1,000.00	80%	10%	10%
	Tax Collection	3,280.00	60%	10%	30%
	Assessors	14,050.00	40%	50%	10%
	Town Clerk	24,419.00	70%	5%	25%
	Attorney	10,000.00	45%	20%	35%
	Personnel	11,933.00	80%	20%	0%
	Elections	2,000.00	100%	0%	0%
	Records Management	2,904.00	80%	10%	10%
	Buildings	23,000.00	60%	10%	30%
	Central Printing & Mailing	4,500.00	70%	5%	25%
	Central Data Processing	2,500.00	70%	5%	25%
	Special Items	33,393.00	70%	5%	25%
	TOTAL	172,009.00			
PUBLIC SAFETY					
	Constable/Bingo Inspector	1,000.00	100%	0%	0%
	Traffic Control	6,000.00	75%	5%	20%
	Control of Dogs	900.00	90%	5%	5%
	Safety Inspections	6,400.00	75%	5%	20%
	TOTALS	14,300.00			
GENERAL FUND					
	Vital Statistics	1,085.00	80%	5%	15%
	Drug Testing	300.00	30%	10%	60%
	Superintendant of Highways	32,750.00	30%	10%	60%
	Garage	3,200.00	30%	10%	60%
	Street Lighting	12,000.00	70%	15%	15%
	Veterans Service	600.00	100%	0%	0%
	Park Program	6,600.00	25%	0%	75%
	Youth Program	7,000.00	100%	0%	0%
	Library	10,300.00	100%	0%	0%
	Museum	2,500.00	100%	0%	0%
	Historian/Celebrations	4,135.00	100%	0%	0%
	Adult Recreation	3,000.00	100%	0%	0%
	TOTAL	83,470.00			
HOME AND COMMUNITY SERVICES					
	Zoning	5,200.00	60%	10%	30%
	Planning	3,300.00	30%	20%	50%
	Refuse and Garbage	31,000.00	70%	10%	20%
	Conservation	0.00	0%	0%	0%
	Cemeteries	500.00	100%	0%	0%
	Census	50.00	100%	0%	0%
	TOTAL	40,050.00			

EMPLOYEES					
	State Retirement	500.00	70%	10%	20%
	Social Security	8,500.00	70%	10%	20%
	Co. Workers Compensation	11,000.00	70%	10%	20%
	Disability	500.00	70%	10%	20%
	Hosp. And Medical Insurance	10,500.00	70%	10%	20%
	Lieu of Medical Insurance	2,000.00	70%	10%	20%
	Medicare	2,250.00	70%	10%	20%
	TOTAL	35,250.00			
INTERFUND TRASFERS					
	Capital Projects Fund	50,000.00	70%	10%	20%
	TOTAL	50,000.00			
Total General Fund Appropriations		395,079.00			
	Highway Appropriations - Townwide				
	General Repairs	155,742.00	30%	10%	60%
	Machinery	55,000.00	30%	10%	60%
	Miscellaneous	7,500.00	30%	10%	60%
	Snow Removal	119,000.00	30%	10%	60%
	Employee Benefits	27,050.00	30%	10%	60%
Total Highway Fund Appropriations		364,292.00			
	Sewer District Appropriations				
	Administration	8,000.00	80%	20%	0%
	Collection Operations	16,765.00	80%	20%	0%
	Treatment Operations	14,000.00	80%	20%	0%
	Sampling & Testing	9,450.00	80%	20%	0%
	General Operations	50,100.00	80%	20%	0%
	Employee Benefits	6,500.00	80%	20%	0%
	Debt Service	35,000.00	80%	20%	0%
	Interest	19,430.00	80%	20%	0%
Total Sewer District Including Debt Service		159,245.00			
	Fire				
	District 1	46,500.00	90%	5%	5%
	District 2	46,500.00	90%	5%	5%
Total Fire District Appropriations		93,000.00			
	School				
	Byron-Bergen	1,764,143.85	100%	0%	0%
	Elba	84,411.68	100%	0%	0%
Total School District Appropriations		1,848,555.53			

Town of Byron					
Revenues 2000					
Revenues		2000 Budget	Residential	Commercial/Industrial	Agriculture/Open Space
General Fund					
	Interest and Penalties	1,800.00	1,206.00	108.00	486.00
	Non-Prop Cty. Dist.	250,000.00	167,500.00	15,000.00	67,500.00
	Departmental Income	10,000.00	6,700.00	600.00	2,700.00
	Home and Community Service	20,000.00	13,400.00	1,200.00	5,400.00
	Value of Money/Property	5,000.00	3,350.00	300.00	1,350.00
	Licenses and Permits	4,000.00	4,000.00	0.00	0.00
	Fines and Forfeitures	7,600.00	5,092.00	456.00	2,052.00
	Miscellaneous				
	Scrap Metals	300.00	201.00	18.00	81.00
	Youth Program	1,400.00	1,400.00	0.00	0.00
	State Aid				
	Per Capita	9,000.00	9,000.00	0.00	0.00
	Mortgage Tax	20,000.00	13,400.00	1,200.00	5,400.00
	State Aid Assessment	300.00	201.00	18.00	81.00
	Youth Programs	1,200.00	1,200.00	0.00	0.00
	TOTAL	330,600.00	226,650.00	18,900.00	85,050.00
Highway					
	Dist. by County	125,000.00	83,750.00	7,500.00	33,750.00
	NYS Snow Removal/Mowing	27,000.00	18,090.00	1,620.00	7,290.00
	Services other Government	46,848.00	31,388.16	2,810.88	12,648.96
	Interest & Earnings	5,300.00	3,551.00	318.00	1,431.00
	State Aid	50,742.00	33,997.14	3,044.52	13,700.34
	TOTAL	254,890.00	170,776.30	15,293.40	68,820.30
Sewer District					
	Sewer Rents	95,160.00	85,644.00	9,516.00	0.00
	Hook Up Charges	0.00	0.00	0.00	0.00
	Interest-Penalties	500.00	450.00	50.00	0.00
	Interest-Earnings	2,670.00	2,403.00	267.00	0.00
	Insurance & Recoveries	0.00	0.00	0.00	0.00
	Special Ass/Debt Service	54,430.00	48,987.00	5,443.00	0.00
	TOTAL	152,760.00	137,484.00	15,276.00	0.00
Fire District					
	Fire				
	District 1	46,500.00	31,155.00	2,790.00	12,555.00
	District 2	46,500.00	31,155.00	2,790.00	12,555.00
	TOTAL	93,000.00	62,310.00	5,580.00	25,110.00
School District					
	School				
	Byron-Bergen	1,764,143.85	1,222,202.42	97,586.78	444,354.65
	Elba	84,411.68	45,554.16	866.04	37,991.48
	TOTAL	1,848,555.53	1,267,756.58	98,452.82	482,346.13
TOTAL REVENUES		2,679,805.53	1,864,976.88	153,502.22	661,326.43
PERCENT OF TOTAL REVENUES		100%	70%	6%	25%

Town of Byron					
Revenues 2000					
Revenues		2000 Budget	Residential	Commercial/Industrial	Agriculture/Open Space
General Fund					
	Interest and Penalties	1,800.00	67%	6%	27%
	Non-Prop Cty. Dist.	250,000.00	67%	6%	27%
	Departmental Income	10,000.00	67%	6%	27%
	Home and Community Service	20,000.00	67%	6%	27%
	Value of Money/Property	5,000.00	67%	6%	27%
	Licenses and Permits	4,000.00	100%	0%	0%
	Fines and Forfeitures	7,600.00	67%	6%	27%
	Miscellaneous				
	Scrap Metals	300.00	67%	6%	27%
	Youth Program	1,400.00	100%	0%	0%
	State Aid				
	Per Capita	9,000.00	100%	0%	0%
	Mortgage Tax	20,000.00	67%	6%	27%
	State Aid Assessment	300.00	67%	6%	27%
	Youth Programs	1,200.00	100%	0%	0%
	TOTAL	330,600.00			
Highway					
	Dist. by County	125,000.00	67%	6%	27%
	NYS Snow Removal/Mowing	27,000.00	67%	6%	27%
	Services other Government	46,848.00	67%	6%	27%
	Interest & Earnings	5,300.00	67%	6%	27%
	State Aid	50,742.00	67%	6%	27%
	TOTAL	254,890.00			
Sewer District					
	Sewer Rents	95,160.00	90%	10%	0%
	Hook Up Charges	0.00	90%	10%	0%
	Interest-Penalties	500.00	90%	10%	0%
	Interest-Earnings	2,670.00	90%	10%	0%
	Insurance & Recoveries	0.00	0%	0%	0%
	Special Ass/Debt Service	54,430.00	90%	10%	0%
	TOTAL	152,760.00			
Fire District					
	Fire				
	District 1	46,500.00	67%	6%	27%
	District 2	46,500.00	67%	6%	27%
	TOTAL	93,000.00			
School District					
	School				
	Byron-Bergen	1,764,143.85	69%	6%	25%
	Elba	84,411.68	54%	1%	45%
	TOTAL	1,848,555.53			
TOTAL REVENUES		2,679,805.53	0%	0%	0%

SWOT Analysis

Introduction

SWOT analysis is a tool used by strategic planners and marketers to assess the competitive environment of a region, industry, business, or product. It is a very simple technique that focuses on the Strengths, Weaknesses, Opportunities, and Threats (SWOT) facing Genesee County agriculture by asking the following questions:

1. What are the advantages of agriculture in Genesee County?
2. What do Genesee farmers do well?
3. What do Genesee farmers do poorly?
4. What can be improved in Genesee County agriculture?
5. What are key regional/industrial trends?
6. What are the options and obstacles facing Genesee farmers?
7. What are the debt and cash flow issues facing Genesee farms?

For the Genesee County Agricultural and Farmland Protection Plan, the strengths, weakness, opportunities, and threats were assessed for the agricultural industry overall to include production agriculture as well as agricultural support industries. The SWOT criteria identified are drawn directly from the study team's interviews with the agricultural industry within the County and surrounding region. As such, this analysis should be considered an industry self-assessment.

Utilization

SWOT factors are utilized in the identification of key issues facing an industry. These issues are then incorporated in the design of programmatic and policy responses. The SWOT analysis of Genesee County Agriculture is supported by additional analyses as well as depth interviews conducted by the ACDS, Inc. study team.

Results

SWOT ANALYSIS MATRIX	
INTERNAL FACTORS	
Strengths	Weaknesses
Physical Environment	Tax Structure
Human Capital	Regulatory Structure
Economic Strength	Development Potential
Infrastructure	Complicated Political Structure
Demographics	Regional Planning
Public Sector Support	Risk Capital / R&D Funding
Agricultural Region	Labor Force
Location	Utilities
Low Development Pressure	Water Supply / Access
Supportive Community	Land Competition
Diversified Production Base	Land Fragmentation
Research and Development	Worker Education
Agricultural Education	Transportation Corridors

Stable Land Base	Land-Use Planning
Market Access/Information	Risk Management
Finance	Grain Marketing Facilities
Cooperative Industry	Consolidation
EXTERNAL FACTORS	
Opportunities	Threats
Venture Development	Development Patterns
Industry Consolidation	Regional Competitiveness
Product Development / R&D	Labor/Middle Management Availability
Labor Force Development	Water Resources
Finance	Regulatory Burden
Management Training	Cost Structure
Land-Use Patterns	Commodity Prices
Leadership Development	Industry Consolidation
Public Education	Traffic Patterns
Industry Consolidation	Declining Output Markets
Efficiency Improvements	Utilities
Economic Development Support	Loss of Critical Mass
Regional Demographics	Regional Planning
Support Services	Public Sector Services
Processing Capacity	International Market Access
Alternative Energy	Farm Consolidation

Strengths

Overall, the strength of Genesee County agriculture is driven by physical, human, demographic, cultural, and economic resources unique to the County and Western New York. These resources are summarized below:

Physical Environment: Genesee County, New York has a mix of soil types, topography, and climate that give it the unique ability to support many different types of agricultural production. In fact, over 131,000 acres of the County's agricultural land is in Prime soils with an additional 5,395 acres of state defined "Unique" soils. This combination of physical assets helps to maintain Genesee County as one of the top producing agricultural counties in the State. As an added benefit, many Genesee farms have valuable and easily accessible mineral resources such as gravel, gypsum, clay, and natural gas.

Human Capital: Perhaps Genesee's greatest strength lies in the human and intellectual capital of its growers and agribusinesses. This is evidenced in the fact that Genesee is the headquarters of many large regional farms and home to several "Top 100" vegetable growers. In addition, Genesee houses a wide array of mid-level and senior managers in both upstream and downstream industries. Also of note is the relatively low age and high educational attainment of the current generation of farmers.

Infrastructure: The physical infrastructure that supports Genesee County agriculture consists of the following:

The County is well served by transportation infrastructure including access to CSX rail lines; I-90, the New York Thruway; and major arterials such as routes 63, 20, 5, 33, and 98. The County is also proximate to two international airports and port facilities. Access to these routes means that local agribusinesses and farmers receive competitive rates on numerous transportation options.

Approximately 23 firms with 93 employees provide agricultural services. These firms specialize in a broad range of services from milk handling to IPM scouting. In addition, the region surrounding Genesee also supports a broad range of primary and supplemental services.

Genesee is currently well served by marketing options including wholesale buyers of grains, milk, fruits, and vegetables. In addition, two aggressive, market oriented dairy cooperatives, Up State Milk and Niagara, are very active in the County. The county also has a strong processing sector made up of ten food-manufacturing firms employing 474 individuals.

Demographic: Genesee remains a rural county with strong linkages between the agricultural and non-agricultural residents. Despite its rural nature, Genesee is well positioned to take advantage of the diverse demographics of the regions. This is especially true of the I-90 corridor between Cleveland and Syracuse that is rich in cultural diversity and within a short drive of two of the nation's largest and wealthiest metropolitan areas.

Economic Strength: Genesee County's agricultural strength relies heavily on the diversity of its industry and the health of its key industry players. Currently, the production mix of vegetables and dairy has helped the County maintain a higher than average net return to the farm and keep agriculture and agriculturally related industries that predominate economic engine in the County (nearly 30% of all economic activity). In addition, a strong and expanding base of input and output industries, such as Agrilink and Up State Milk, supports local operations.

Public Sector Support: Genesee County has a very supportive public sector both in county government and in the towns. Unlike other New York jurisdictions, this has translated into IDA involvement in agricultural development and finance, expanding the opportunities open to local farmers.

Agricultural Region: Western New York maintains one of the strongest agricultural industries and support infrastructures in the Northeast. Unlike many other regions, this base is highly diversified and generally scale efficient.

Location: Genesee County is well served by a major transportation corridor and is within a one-day drive of major east coast and Midwest agricultural markets.

Development Pressure: While regional land pressure is growing and impacting Genesee's neighboring jurisdictions, the sprawling effects of Rochester and Buffalo's growth have largely missed Genesee. In fact, Genesee has seen an erosion of real land values over the last decade in all but a few towns. This trend is not expected to continue and Genesee is a next logical step for regional development. Some of this effect can be seen in the residential development patterns radiating from key arterials into Rochester.

Supportive Community: Despite isolated incidents, the community seems to remain supportive of agriculture and respects the role it plays in the local economy. Events such as Cornell Cooperative Extension's Agstravaganza and policy tours help to maintain this level of commitment.

Diversified Production Base: Genesee's agricultural base is almost equally balanced between livestock and vegetable operations. This mix provides an economy wide risk diversification measure and adds to the overall stability of the market. However, sector distribution is changing with exemplary growth between 1992 and 1997 in vegetables acres (41%).

Research & Development: Private research and education infrastructure is in place on individual farms. As well, a private-public partnership through Cornell and the Western New York Vegetable Growers Association runs a research facility in Batavia.

Agricultural Education: Agricultural education in the County is supported at a variety of levels. Secondary education begins at both the BOCES centers to help train skilled labor and in the Regents' program that prepares students for higher education opportunities. In addition, the Genesee County Community College, Northeast Dairy Producers Association, and Cornell Cooperative Extension assist with continuing education efforts.

Stable Land Base: Genesee is experiencing modest decreases in agricultural land base, due in part to land going fallow, but absolute and relative growth in most harvested acres of agronomic crops.

Market Access / Information: Genesee County farmers have direct and immediate access to some of the nation's finest consumer food research through Cornell University. In addition, Genesee farmers themselves have developed excellent feedback loops into the food industry and have a solid access platform into the processing and distribution sectors and the market expertise within those industries.

Finance: Genesee County farmers operate in a highly competitive market for bank debt. Unlike many parts of the Country, these farmers have multiple finance options and when needed access to limited equity partnerships.

Cooperative Industry: Genesee County and regional farmers have a demonstrated pattern of cooperative behavior, such as land swapping between dairy and vegetable farms; cooperative management; and equipment sharing that bolster the local economy.

Weaknesses

As with any industry, region, or product, Genesee County agriculture has weak elements that must be addressed while planning for agriculture's economic future. Ironically some of Genesee County's most significant weaknesses count among its strengths as well.

Tax Structure: Despite recent changes in sales tax laws and school tax treatment, farmers in New York and specifically Genesee County face significantly higher tax burden than farmers in other parts of the County such as the Mid-Atlantic region. The primary issue for most farmers is the property tax rate, which is variable across the County and accounts for a significant annual cost of carrying the land. Other taxes of note that impact agribusiness competitiveness include utility taxes and workers compensation.

Regulatory Burden: Increased regulatory burden, specifically related to nutrient management planning; transportation; and labor, contributes to higher costs and in some cases operational inefficiency. Many farmers feel that regulatory pressure will continue to grow making farming in Genesee County more difficult. As a result some operations are considering relocation.

Development Patterns: Development patterns in Genesee County show weaknesses that will jeopardize the agricultural industry as regional development pressure intensifies. Some of these patterns are already evident in the towns of Bergen, Byron, and LeRoy where large lot developments and lots by right are carving up large sections of farmland and extensive road frontage. This type of development has several negative impacts. First, extensive development of frontage increases the interaction farm (industrial) and non-farm uses leading to increased land-use conflicts. Second, large lot sizes take unnecessarily large units of agricultural land out of production, which has a negative impact on the industry as well as a negative fiscal impact on the jurisdiction. Third, the existing pattern leaves farmland fragmented and more difficult and less economical to farm. Finally, dispersed development spreads commuter traffic over a larger road network making it more difficult to move equipment on local roads.

Complicated Political Structure: This issue relates specifically to taxes and the overlay of jurisdictions with taxing authority. Farmers indicate that the presence of multiple jurisdictions with taxation authority creates an imbalance in the carrying costs of land and restricts their ability to be represented during the political process.

Regional Planning: Genesee's agricultural industry is strongly linked to the success of the region, however, there are no regional planning efforts addressing the needs of the industry in general or by sector.

Risk Capital / R&D Funding: As the level of consolidation, entrepreneurship and innovation rises in Genesee County, access to risk capital (equity and equity/debt hybrids) is limiting local development options. This is in part due to the capital markets recent focus on technology investment and in part to limited access to equity financing networks.

Labor: The Genesee County labor market is tight and will continue to be so in the near future. A mixture of local and migrant laborers of varying skill levels fills the current labor pool. Competition for skilled labor is high, a fact that is complicated by the rising age of this group. Replacement of retiring skilled labor is critical if labor costs are to be maintained at acceptable levels. As the market continues to tighten, retention of the existing labor force will become more difficult.

Utilities: Utility issues in Genesee County revolve around issues of: 1.) Access, 2.) Quality, and 3.) Affordability and apply to electric power, gas, and telecommunications. The primary utility problems involve electric power. Farmers across the County pay highly variable rates for electricity consumption (up to an \$.08/KwH differential), rates which exceed regional averages by as much as \$.02/KwH. IN addition, many complain of lack of responsiveness to service calls, and unreliable “end of the line” service. AS farmers seek to replace electricity with natural gas, they have encountered pipeline access problems or lack of service. Telecommunications infrastructure suffers from similar problems in that service conditions are sometimes poor, access is slow, and high-speed data connections are unavailable.

Water Supply / Access: Farmers in various parts of the County indicated that ground and surface water access may become limiting factors as the needs for crop irrigation and livestock watering grow. Of primary concern are limits on access, resource capacity, well pressure in proximity to mines, and water quality (pollution, sulphur, and salt water intrusion).

Land Competition: The County is fortunate to have a high quality land base. Competition for this land base is high. In some areas, the competition for the resource is between agricultural and nonagricultural uses. In other areas this competition is between competing agricultural uses. In light of this condition, it is unlikely that the current trend of stable agricultural land values will continue.

Land Fragmentation: In a recent analysis conducted by the Genesee Soil Conservation District, farms are becoming highly fragmented. This is due, in part, to local development patterns and high levels of competition for prime soils. While by itself this condition is not indicative of a systemic problem, it does stretch limited farm resources and adds to operational inefficiency by increasing transport, machinery, and labor needs.

Worker Education: In a transitional economy such as today’s agriculture, labor force training is a critical success factor. This is especially true when the labor force itself is transitioning from a local base to a non-English speaking base. Public training infrastructure has been slow to adapt to this need.

Transportation Corridors: The County road infrastructure consists of several main arterial roads and a wide system of secondary roads. As commuter density and farm equipment sizes have changed, several issues have surfaced. Main arterial speeds and traffic volumes are restricting farm equipment access. Secondary roads and rural bridges

are in some cases restrictively narrow and lack adequate shoulders. In addition, farmers are concerned that the movement of farm equipment through some villages may be restricted.

Land-Use Planning: The presence of multiple political jurisdictions with planning authority makes it difficult and more time consuming for the County to address comprehensive land-use issues. This system can also create an imbalance in development patterns as jurisdictions adapt independently to changes.

Risk Management: Few Genesee farms have an active risk management strategy beyond forward contracting grain and oilseed sales. As a result, agricultural expenses and receipts are subject to higher volatility.

Grain Marketing Facilities: Most farmers feel that Genesee County is underserved by local and regional grain marketing facilities. Continued consolidation and closures will further threaten the competitiveness of this market.

Farm Consolidation: Farm consolidation is both strength and a weakness in Genesee County. Specifically, the presence of regionally and nationally significant farm operations anchors much of the County's agricultural infrastructure and agriculturally related businesses. In addition, these farms provide leadership, business acumen, and economic vitality. However, the County must recognize that a business failure in one or more of these operations could have significant negative economic and land-use impacts.

Opportunities

The long-term success of the industry is dependent upon its ability to recognize the opportunities presented by changes in the business environment and react appropriately. The industry must be willing to look for opportunity in those situations that seem to be threats and challenges.

Venture Development: A wide variety of agricultural businesses are forming or attempting to form in Western New York and Genesee County. Primary impediments are limited access to sources of equity investment, recruitment of qualified technical and professional services, unsupportive regulatory structure, and little access to high-level professional services.

Industry Consolidation: Historically, industry consolidation provides opportunity for local farmers and agribusinesses. Specifically, consolidation, on both the input and output side, generally leaves small, niche markets underserved. This opportunity is perhaps best known in food processing where consolidation leads to homogeneity in product offerings. Homogeneity creates local pockets of underserved consumers.

Industry Consolidation: Historically, agribusiness industry consolidation is viewed as a negative element for local farmers and small agribusinesses. However, consolidation, on the input and output side of agriculture, a rapidly growing trend during the last decade,

has also created successively larger underserved niche markets. This opportunity is perhaps best recognized in food processing where consolidation has led to homogeneity in product offerings. This homogeneity creates locally and regionally significant pockets of underserved consumers and opportunities for aggressive marketers of food products.

Product Development / R & D: Changes in consumer purchasing power and food buying habits; opportunities in agricultural biotechnology; industry consolidation; and regional demographics yield an expanded level of marketing and product development opportunities. With appropriate support, Genesee farmers can capture a larger share of the value-added mark-up on agricultural products.

Labor Force Development: Genesee County does not exist in a labor vacuum. The entire Western New York agricultural industry is suffering from the same labor issues of low availability and reducing quality. While this is a short-term threat, many farmers and ACDS, Inc. believe that a concerted regional effort to expand and train skilled agricultural labor will lift the entire industry and give the region and the County a competitive advantage versus other states and regions.

Finance: The need for risk capital and R&D support has been identified as a key internal weakness of the County. However, addressing this problem on a regional basis offers a great opportunity for industry enhancement that cannot be achieved at the county level. Financing entrepreneurship and innovation using equity, debt/equity hybrids, and straight debt, especially for middle market deals (\$5 million to \$20 million) will help retain and expand existing businesses; promote new, “home grown” businesses; and attract new businesses.

Management Training: The best source of middle and senior management for agribusinesses comes from within the region. This source of management, while very effective, has expressed shortcomings in technical and professional skills. As the need for these skills to enhance competitiveness grows, it is important for the region’s universities, technical schools, and community colleges to develop specific curricula and protocols for servicing this need. As with labor force development, improvement in this area will enhance the competitive stature of the industry.

Regional Land-Use: Regional land-use patterns may allow Genesee the opportunity to plan and finance agricultural support and land preservation programs before land-use pressure puts undue strain on the industry. However, as development expands from Erie and Monroe Counties into Livingston, Wyoming, Orleans, and Genesee, the County will likely be faced with a rapid increase in development rates. The key is to take advantage of the trend before it becomes a problem.

Leadership Development: To build and maintain a strong and supportive policy infrastructure that benefits agriculture, the farming community should seize the opportunity to identify and develop new industry leaders. Western New York is still a place where agriculture has a voice, but this voice will only be maintained through continual development and invigoration of leadership skills and access.

Public Education: The region's changing demographics present an opportunity to turn new, non-agricultural residents into supporters of agriculture. Proactive public education efforts in other parts of the Country show the positive benefits of explaining the fiscal, economic, environmental, and social values of agriculture. Specific benefits include:

1. Greater market share for local agricultural products.
2. Better farm/non-farm neighbor relations.
3. Greater policy support for agriculture.

Economic Development Support: Economic development support through Empire State Development and the Industrial Development Authority is just beginning to accrue to the benefit of agriculture. As these organizations become more comfortable with agricultural deals and understand the industry better, agriculture can benefit from programs such as labor training grants, Payment in Lieu of Taxes "PILOT" Programs, tax increment financing, etc.

Regional Demographics: The Northeast and upper Midwest, through Michigan, supports several distinct and cohesive ethnic minorities that offer significant marketing opportunities. Of specific interest is the existing underserved market for h'alal processed foods and ethnic specialties. In addition, Latin populations are growing in prevalence and may offer similar opportunities.

Processing Capacity: The region currently offers excess processing capacity, especially in dairy capacity, which may support production of new and innovative products as grower research and development efforts expand. Availability of these resources may reduce barriers of entry.

Alternative Energy Resources: Numerous opportunities exist to explore alternative energy options on the farm. Currently, there is high interest in developing scale efficient methane digesters to service on farm power needs.

Threats

Threats represent those elements of the business environment that offer the greatest challenges to long-term survival of the agricultural industry. Many threats are beyond the control of the industry and frequently require additional resources.

Development Potential: Suburban development patterns outside of the County, access to major arterials, and the availability of large blocks of land within the County make Genesee an ideal location for regionally centered growth between Buffalo and Rochester.

The first threat comes from the nature of conflicting land-uses. Agriculture, despite providing a pleasant and pastoral landscape, is a commercial and industrial land-use that produces dust, odors, slow moving traffic, and other conditions that conflict with residential use. There are true economic costs associated with managing farm operations,

especially livestock operations, in close proximity to rural residences. In addition to the direct costs associated with operational changes, there are additional social costs to this conflict that include neighbor infighting, nuisance suits, and crop damage.

The second threat from current land development pressure comes from the patchwork of development. As developed parcels leapfrog existing farms, they limit the expansion capability of existing operations while impacting successful intergenerational transfers. In addition, the patchwork of farms requires farmers to travel greater distances between parcels increasing both the time and expense of farming.

The third issue involves the quality of land resource being consumed by development. Due to the radial pattern of development from Baltimore and Washington, the County's best, and most productive soil resources are developed at a faster rate than are the less productive soils. This increases the proportion of marginal soils under cultivation and has the potential to limit the efficiency of county farms.

The fourth issue affected by land-use patterns centers on the increase in land value. As a result of increased demand for land, farmers are forced to compete for land at higher prices. This impacts both operational costs as well as farm transition.

Regional Competitiveness: While Genesee County agriculture may not have an absolute disadvantage compared to regional (outside of New York) competitors, it does face relative disadvantages in several significant areas: regulatory burden and higher cost structure.

The agricultural and work place regulations in New York, in some cases, are significantly more stringent than nearby state's. For example, New York has its own pesticide registration process that may delay or restrict the use of beneficial products. Also, the State tends to adopt stricter nutrient management and workplace regulations.

The cost structure facing Genesee County farmers is driven by higher tax structure, which is changing with support from the Governor, and high utility costs.

Management Recruitment: Agribusinesses and, to a lesser extent, farmers face difficulty in recruiting qualified technical and professional expertise. This is due in large part to the state's reputation as business un-friendly and a high cost of living. With out changes in this situation, it will be difficult to maintain a high level of intellectual capacity within the agricultural industry.

Water Resources: Increased reliance on ground and surface water are a regional source of concern. Aquifers do not respect political boundaries, and problems in one jurisdiction can quickly expand across borders. Salt water intrusion is an example of this issue.

Regulatory Burden: Real or perceived, farmers and agribusinesses feel as if they are under an increasing and unsustainable level of regulatory scrutiny. As new levels of

policy and oversight are added, farmers express little willingness to continue in agriculture and/or expand operations. As this perception grows, it increases the likelihood that operations may relocate putting stress on the regional economy and support infrastructure.

Commodity Prices: While the County cannot directly impact commodity prices, it remains one of the fundamental issues in agriculture. Commodity farms are producing crops in increasing abundance worldwide. This overproduction, combined with large annual carryover and new federal support policies, keeps prices unsustainably low. If this condition persists, Genesee County farms, with higher costs and a ready land market, will likely transition at a higher rate.

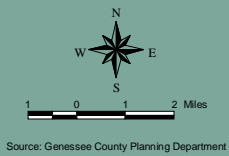
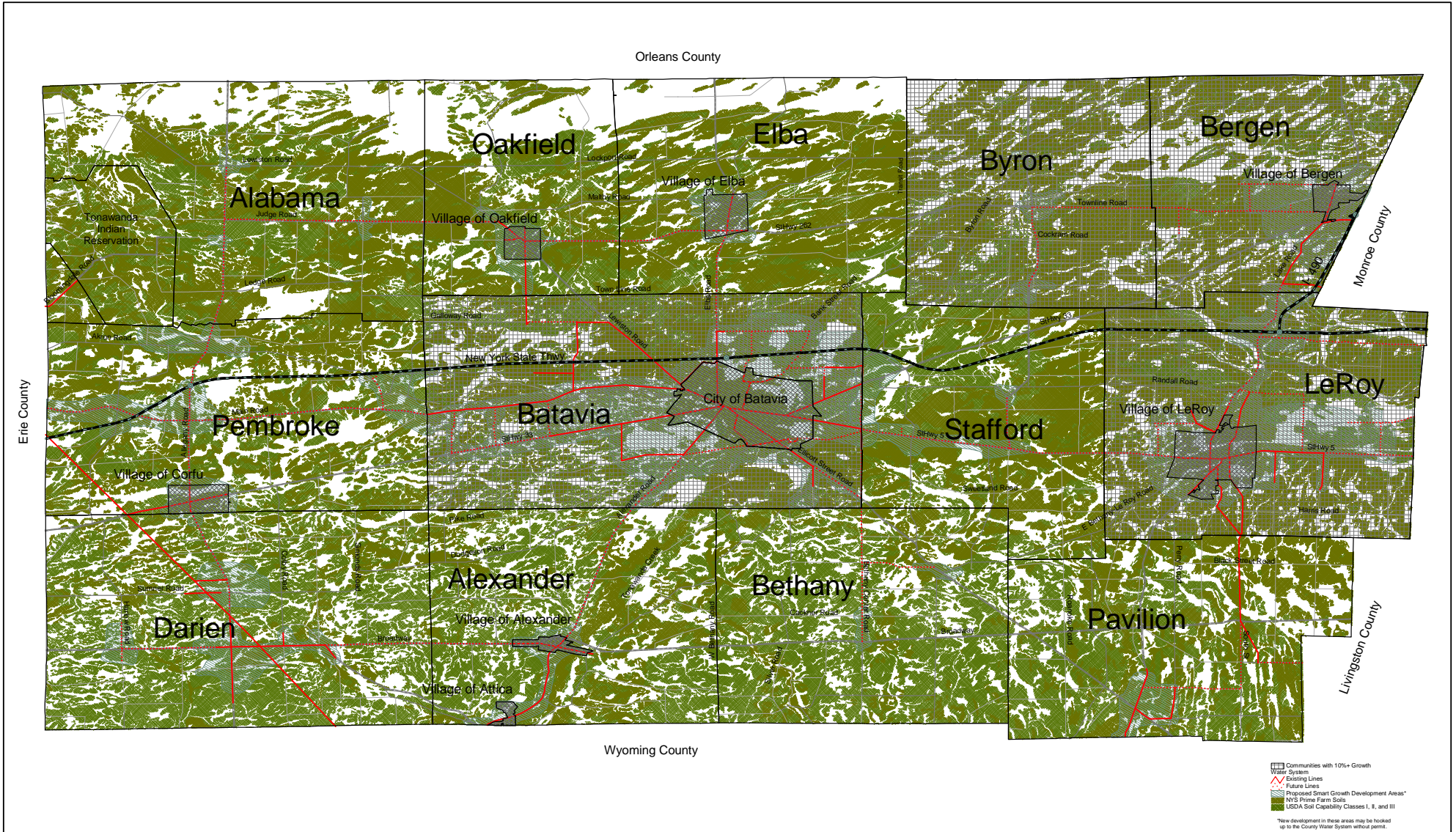
Industry Consolidation: A less obvious threat to Genesee County agriculture comes from the increased rate of agribusiness industry consolidation. Consolidation is evident in both input industries and output industries (e.g. Cargill & Continental or Tyson & IBP) . The threat imposed is that of a less responsive, more costly marketing system.

Declining Markets: Due to the loss of critical mass and consolidation in parts of the regions, marketing opportunities are diminishing for grain and livestock. This issue is of particular concern for livestock producers who, over the last 15 years have seen the number of small processors/locker plants drop while at the same time seeing the number of marketing/auction opportunities reduced. The same situation is occurring for grain and vegetable crops throughout New York. The end result is higher risk for farmers who sell into these markets.

Energy: Access to affordable energy supplies (natural gas, propane, diesel, electricity, etc.) and limited co-generation opportunities will inhibit growth and add significantly to regional operating costs.

Neighboring Land-Use Controls: Unexpected and/or unnoticed changes in the land-use policies of neighboring jurisdictions can very quickly change use patterns in Genesee. This could have the effect of steering new development into the County or pulling beneficial development out of the County.

International Market Access: Genesee farms and agribusinesses are within the service area of a potentially lucrative dairy market in Canada, but are restricted from entry. Access to this market could provide an additional source of revenue, boosting dairy farm income. Without parity in this relationship, Canadian producers can use proceeds from Canadian sales to access and negatively impact the Western New York milk market.

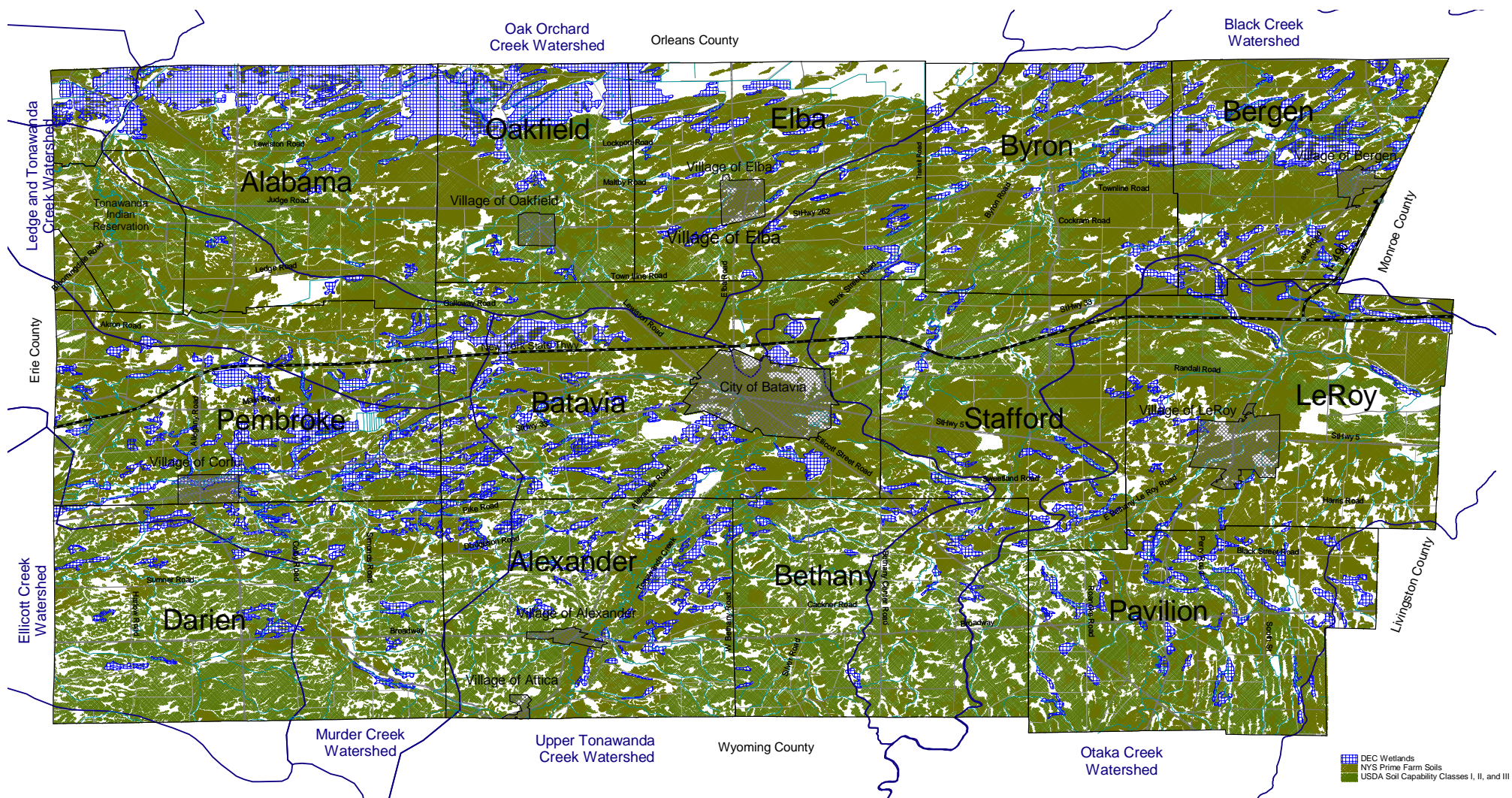


Genesee County Agriculture and Farmland Protection Plan Strategic Farmland

Agriculture & Community Development Services
Columbia, Maryland

peter j. smith & company inc.
Buffalo, New York and Fort Erie, Ontario

American Farmland Trust
Albany, New York



Genesee County Agriculture and Farmland Protection Plan

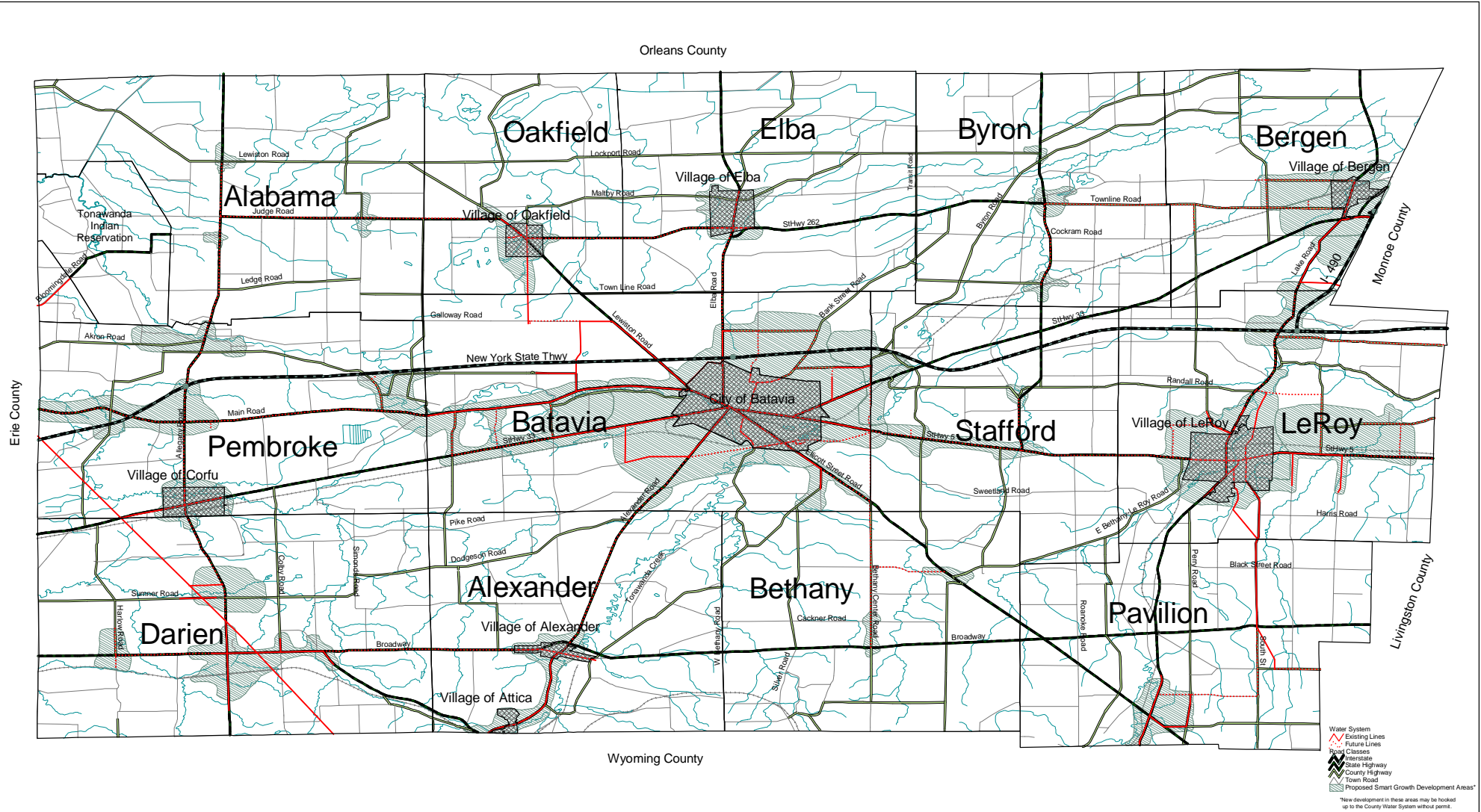
Agricultural Resources

Source: Genesee County Planning Department

Agriculture & Community Development Services
Columbia, Maryland

peter j. smith & company inc.
Buffalo, New York and Fort Erie, Ontario

American Farmland Trust
Albany, New York



2 0 2 4 Miles

Source: Genesee County Planning Department

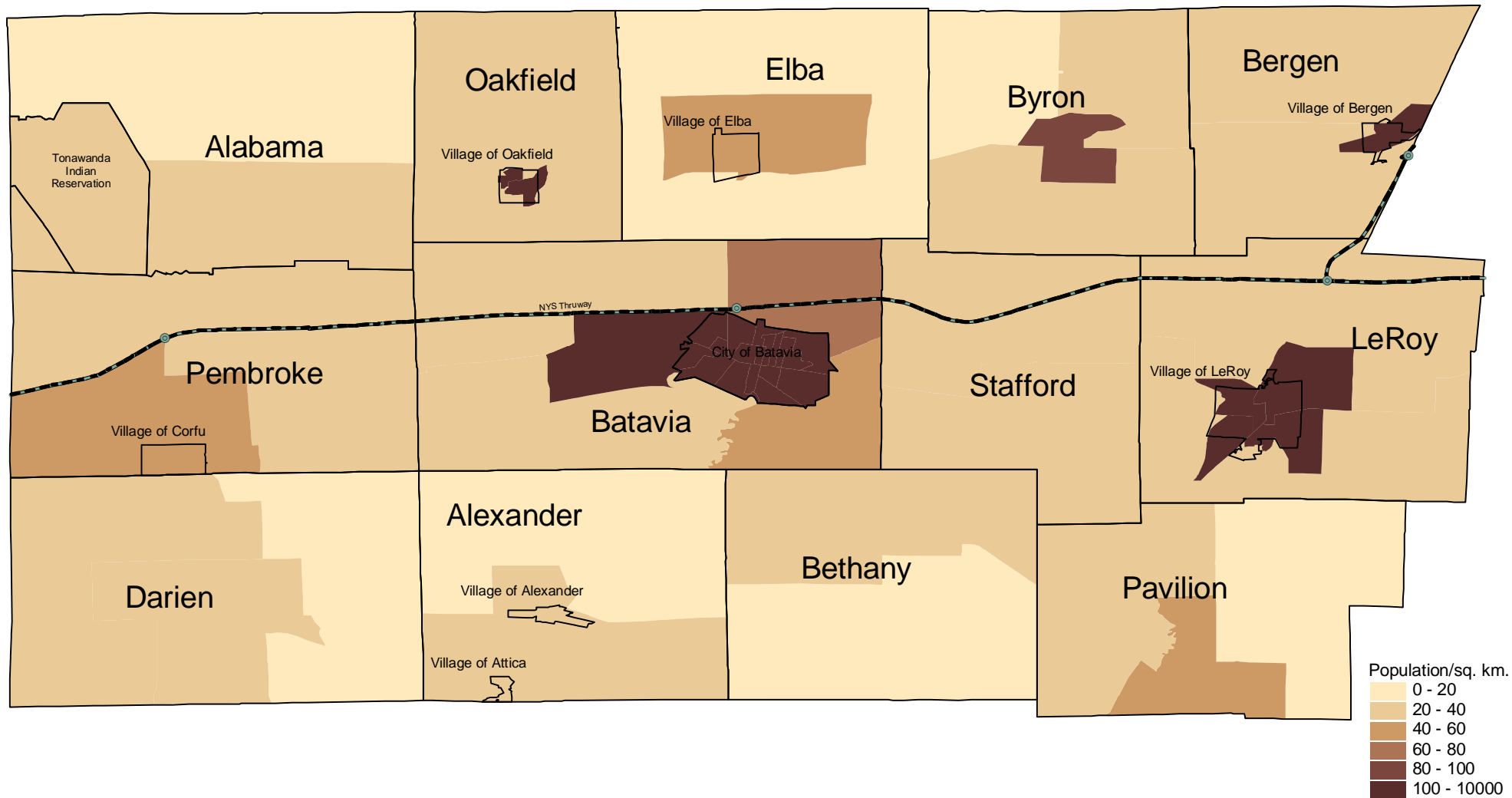
Genesee County Agriculture and Farmland Protection Plan

Transportation and Public Utility Infrastructure

Agriculture & Community Development Services
Columbia, Maryland

peter j. smith & company inc.
Buffalo, New York and Fort Erie, Ontario

American Farmland Trust
Albany, New York



Genesee County Agriculture and Farmland Protection Plan

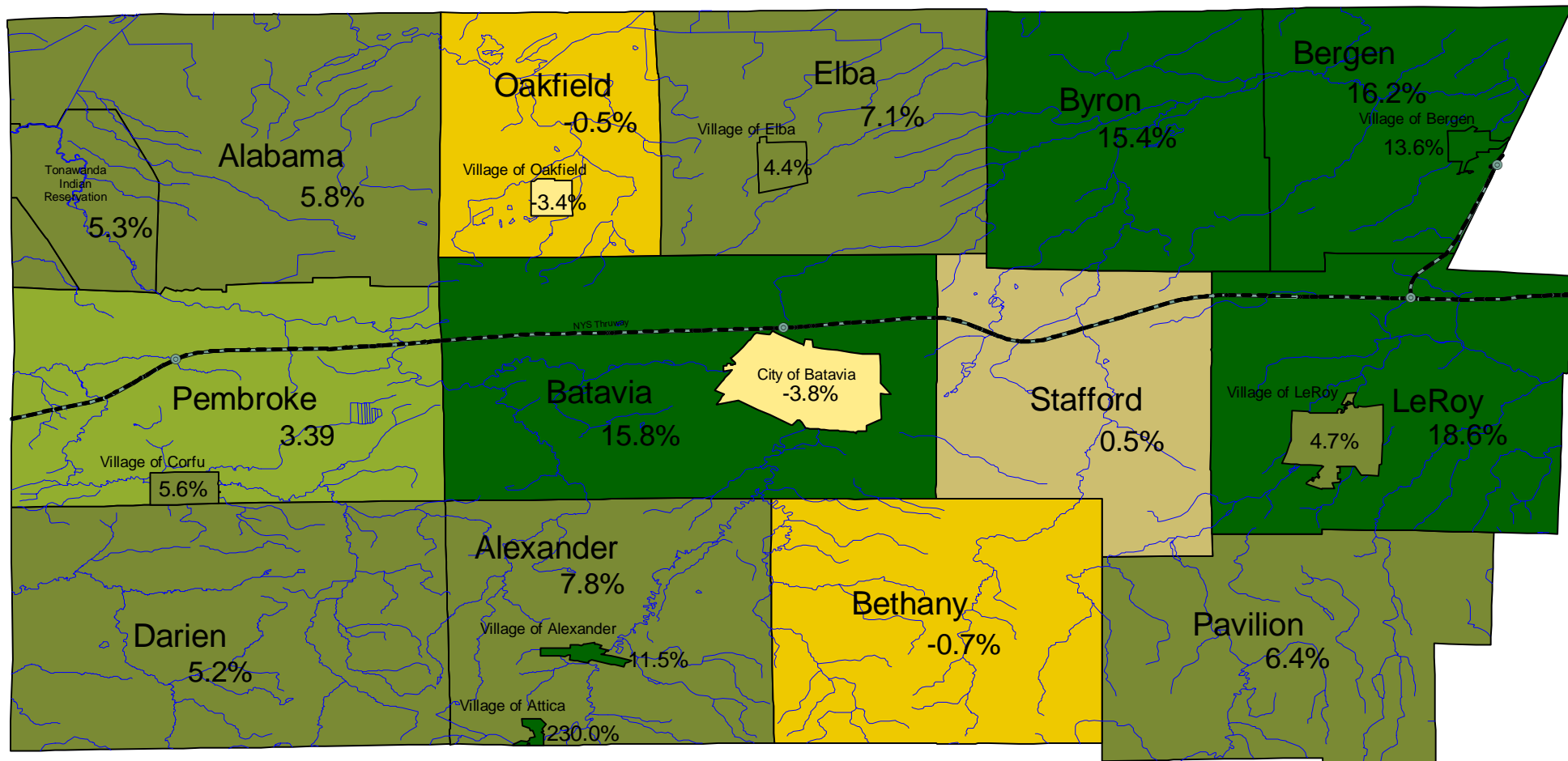
Population Density by U.S. Census Block Group 1990

Source: US Bureau of the Census

Agriculture & Community Development Services
Columbia, Maryland

peter j. smith & company inc.
Buffalo, New York and Fort Erie, Ontario

American Farmland Trust
Albany, New York



Estimated Pop change 1990-2025

- Less Than -2%
- 2 - 0%
- 0 - 2%
- 2 - 4%
- 4 - 8%
- Greater than 8%



2 0 2 4 Miles

Genesee County Agriculture and Farmland Protection Plan

Estimated Population Change by Municipality 1990-2025

Source: Genesee Co Planning Dept

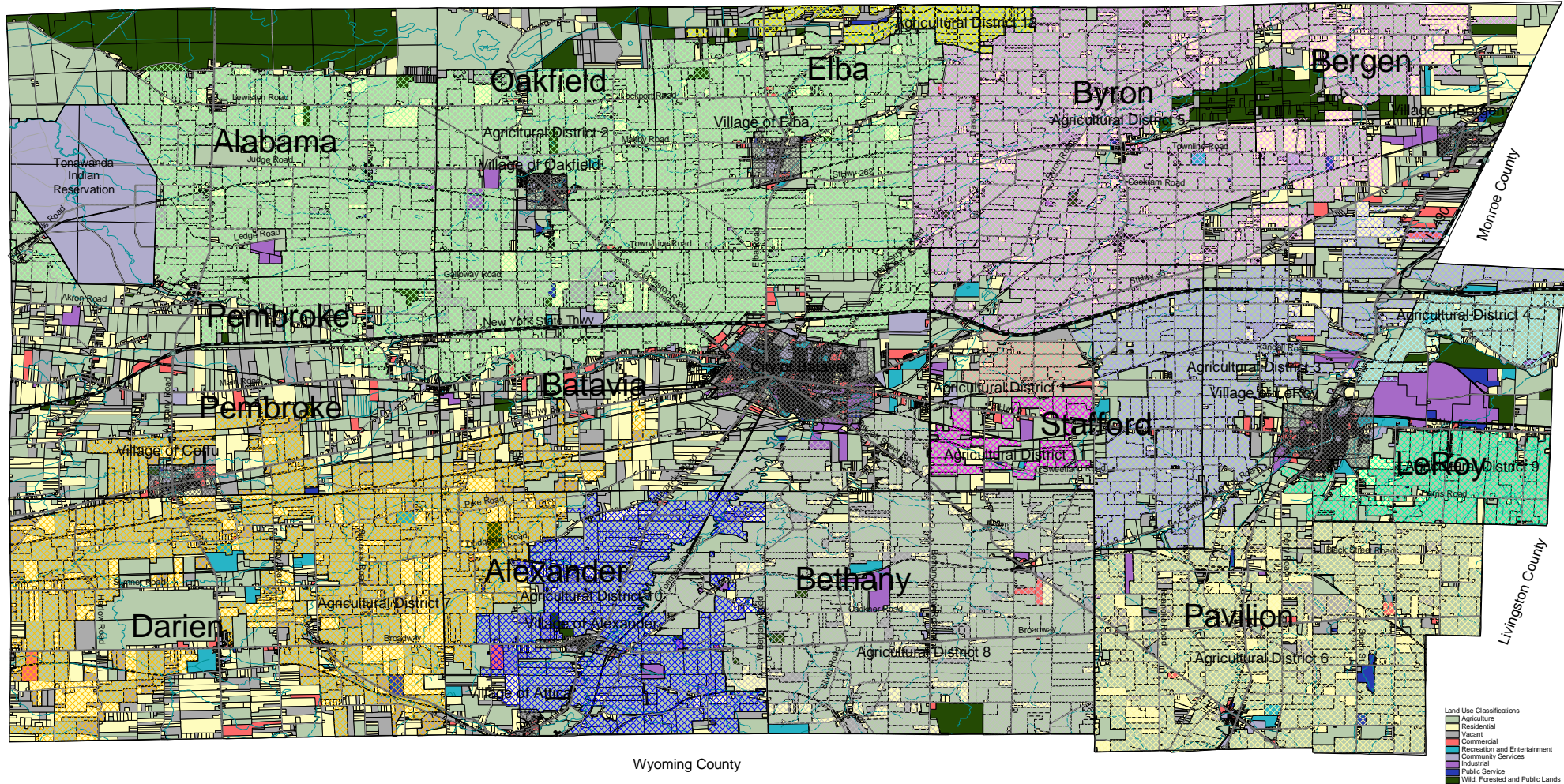
Agriculture & Community Development Services
Columbia, Maryland

peter j. smith & company inc.
Buffalo, New York and Fort Erie, Ontario

American Farmland Trust
Albany, New York

Orleans County

Erie County



Wyoming County

Monroe County

Livingston County

Genesee County Agriculture and Farmland Protection Plan

Existing Land Use and Agricultural Districts

Agriculture & Community Development Services
Columbia, Maryland

peter j. smith & company inc.
Buffalo, New York and Fort Erie, Ontario

American Farmland Trust
Albany, New York



Source: Genesee County Planning Department

