Challenges and Opportunities for Agricultural Viability in Berks and Schuylkill Counties

REPORT PREPARED FOR THE
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American Farmland Trust (AFT) is a national, nonprofit organization founded in 1980 to stop the loss of productive farmland and to promote farming practices that lead to a healthy environment. AFT provides technical assistance and training to landowners and land trusts, USDA and other agricultural and conservation agencies, planners, planning offices and planning commissions, and others. One of the core services is the Farmland Information Center (FIC), a clearinghouse for information about farmland protection and stewardship that is supported by a cooperative agreement with the USDA Natural Resources Conservation Service. The FIC houses an online "library" collection of literature, laws, sample documents and statistics. FIC also offers an Answer Service where AFT staff members respond to requests for information by phone, fax and e-mail. Additional AFT services include planning for agriculture—including fiscal and agricultural economic analysis; farmland protection policy analysis and program development; direct land protection and easement management; stakeholder input and task force facilitation; seminars and workshops, publications and publicity materials, as well as professional development and training.

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TABLE OF CONTENTS

EXECUTIVE SUMMARY

Agriculture and natural resources are vital economic sectors in Berks and Schuylkill counties. In Berks County, the total economic output of agriculture, food, wood and farm supply businesses was more than $1.2 billion in 2002. Schuylkill County's more modest sector still totaled $444 million.

While the region's agriculture remains profitable, farming increasingly faces challenges that threaten its future. Urban development pressure, stagnant commodity prices, rising input and labor costs, and onerous regulations may jeopardize the future viability of agriculture here unless actions are taken soon to ensure a sustainable future.

The Berks County Community Foundation (BCCF) received a grant from the William Penn Foundation to analyze the agricultural industry in Berks and Schuylkill counties and to determine what actions could be taken to sustain the industry over the next 25 years. In March 2005, BCCF contracted with American Farmland Trust (AFT) to conduct the study.

AFT conducted an eight-month assessment of agriculture in Berks and Schuylkill counties. This included quantitative and qualitative research and engaging farmers and local leaders in discussion to help identify the critical challenges facing agriculture and develop recommendations to address them. BCCF appointed an advisory committee, and AFT held a series of focus groups to ensure adequate public input and comment.

Based on this process, AFT identified three overarching challenges: declining farm profitability, competition for land, and lack of public appreciation and leadership for agriculture. To address these formidable challenges, AFT developed a comprehensive set of recommendations to sustain a viable agricultural industry in Berks and Schuylkill counties for the next generation. These recommendations are based on the local wisdom and good ideas of the many people who participated in the process, as well as the experience of other communities that have faced similar challenges. They form a blueprint of how farmers and agricultural stakeholders in both counties can work together, learn from their neighbors and reach out to the public. The recommendations include both short- and long-term actions that, if implemented, could have a significant and positive impact on the future of agriculture in Berks and Schuylkill counties.

1. **Enhance farm profitability by creating new structures and expanding existing ones to help farmers with business development, reducing or eliminating regulatory hurdles and creating a plan to deal effectively with animal manure.**

   Traditional economic development focuses on business recruitment and retention and does not typically work with the agricultural community. Berks and Schuylkill counties would benefit from a staffed economic development office that targets agriculture and has the necessary expertise to generate resources and ideas for a more prosperous agricultural economy. Staff would work with farmers and agribusiness to identify new crops or business opportunities, facilitate access to capital, write business plans and address other farm and rural business needs. They also could review township ordinances to ensure they are not adversely affecting county agriculture and recommend ways to

create “farm friendly” ordinances. Farmers would benefit from expanded Cooperative Extension programs that address the changing structure of the region’s agriculture and find a long-term solution to effectively manage manure from animal agriculture in accordance with current regulations.

2. **Secure a critical mass of agricultural land by increasing funding for Berks and Schuylkill counties’ agricultural land preservation programs, exploring new and innovative funding options, and strengthening agricultural zoning.**

   Program officials in Berks County are hopeful that there will be a new bond issue to fund the Agricultural Land Preservation Program. They estimate that a $30 million bond would preserve about 30,000 more farmland acres, bringing the total to about 70,000 acres—or one-third of Berks County’s farmland. Funding sources other than bonds should be explored to expand potential revenue sources to fund additional farmland preservation in the future. A new, innovative program that targets farmland at risk for development and gets new farmers on the land should be explored.

   Schuylkill County also would benefit from bonds and other funding sources for its program. The land base could be further stabilized if townships adopted more uniform agricultural protection zoning standards to make it easier to implement agricultural zoning. They also should consider other measures, such as a transfer of development rights program and brownfields redevelopment.

3. **Expand agricultural leadership, education and outreach by creating new structures and expanding current programs.**

   New forms of leadership and education are needed to represent agricultural interests within government and the general public. All sectors of the agricultural industry including suppliers and processors should be included in this effort to give agriculture a stronger voice and to cultivate leadership among the farm community. Options that should be considered include a county agricultural commissioner, township agricultural advisory boards, agricultural educators and an entirely new leadership structure. Farmers should participate more in local government and cultivate the next generation of farm leaders. “Ag in the Classroom” should be fully funded so it can be expanded in public schools, and farm leaders should encourage farm-to-school food programs. Finally, newly elected public officials need orientation and education about farm and rural issues.

INTRODUCTION

Agriculture always has been significant in Pennsylvania's Berks and Schuylkill counties. In 2002, the counties' diverse mix of livestock and crops contributed $370 million in direct sales and, combined with other natural resource industries such as forestry and forest products, produced more than $1.65 billion in total economic output. Berks County alone supplied $248 million in wages and employed 8,578 people annually in traditional field crops, livestock, poultry and nursery/greenhouse industries. Schuylkill had more modest production and employment statistics but boasts unique attributes, such as leading the state in Christmas tree acreage.

Located in southeastern Pennsylvania, Berks County is 56 miles northeast of Philadelphia. Schuylkill County borders Berks County to the northeast, 15 miles west of Allentown. Today, development sprawling into the rural areas of these counties threatens the future of their farming, farmers and farmland. If this trend continues, both counties will be challenged to decide how to best accommodate new residents while sustaining agriculture and the rural features that their citizens have treasured for centuries.

Berks and Schuylkill counties were settled in the early 1700s by people migrating inland, often to acquire land for farming. Early settlers took advantage of the Schuylkill River, which runs from Reading into Philadelphia. Navigable by flat-bottom boats, the river was an important shipping channel for Reading's emerging industrial center in the late 19th century. As a result, immigrants continued to come into the region seeking labor in the factories.

In the 20th century, Berks County's population more than doubled to reach its current size of 373,638 people. New housing is growing faster than the population—approximately doubling since 1950 to its current level of 150,000 units, while the overall population has only grown by 47 percent. Much of this growth is occurring outside of established town centers. Between 1990 and 2000, Berks County's overall growth rate was11 percent with most of its townships and boroughs growing by double digits, while Reading's population increased only by 3.6 percent. In Schuylkill County, older, established communities such as Pottsville are losing population, while new housing construction in rural areas is causing some townships to gain population in farmed and wooded areas. Between 1990 and 2000, Schuylkill County's overall population decreased by 1.5 percent, but small townships such as Barry, Butler, Mahanoy, Norweign, Rush, South Manheim, Washington and Wayne recorded double digit growth. According to the Schuylkill County Comprehensive Plan, "the scattered pattern of urban uses that has begun to occur in parts of Schuylkill County also represents…a weakening of the economic base of the county in agricultural production and tourism." Despite record sales in 2002, agriculture now faces increased competition for land with developed uses.

The Berks County Community Foundation (BCCF) decided to address this growth and development in the late 1990s and began discussions with county planners, economic development and elected officials, farmers and Farm Bureau. All shared the concern that agriculture, long regarded as the top industry in the county, was at risk.

In 2004, BCCF received a grant from the William Penn Foundation to analyze the agricultural industry of the Berks-Schuylkill region and to determine what actions could be taken to sustain the industry over the next 25 years. In March 2005, BCCF contracted with American Farmland Trust (AFT) to conduct the study. AFT has 25 years of experience working with farmers and communities to find win-win solutions to the challenges of rapid growth and development facing agriculture.

This report is the product of an eight-month process, which included quantitative research on agricultural trends as well as case study research on programs from other parts of the country that might serve as models for new programs in the Berks-Schuylkill region. In addition, AFT elicited stakeholder input from farmers, an agricultural advisory group and local leaders to develop recommendations.

Section III of this report discusses the process used to conduct this study. AFT gathered quantitative background data to identify trends and characterize economic impacts. Statistical data were informed by stakeholder input by asking agricultural experts and community leaders to "ground-truth" data, prioritize issues and recommend solutions. AFT then conducted research on innovative programs from across the country to identify actions that could be taken within Berks and Schuylkill counties to ensure long-term agricultural viability.

Section IV presents and analyzes statistical data to describe current conditions and trends in agriculture. Primary data sources include USDA Census of Agriculture, IMPLAN, the Bureau of Labor Statistics and the Economic Research Service. Data were ground-truthed and tested. The thoughts, ideas and interpretation gathered from farmers, agribusiness representatives and educators, community leaders and others are reported in the Section V, Stakeholder Input, which includes a summary of the full range of contributions gathered from stakeholders in Berks and Schuylkill counties through personal interviews, focus groups and advisory committees.

AFT integrates the findings from the background data and stakeholder input in Section VI, Discussion of Key Findings, which offers a comprehensive analysis of the challenges and opportunities for agriculture in the two counties. This discussion is followed in Section VII by a summary of AFT's research on innovative programs that are being used across the country to address similar issues to those found in the Berks–Schuylkill region. Finally, AFT lays out a set of detailed recommendations to ensure the sustainability of agriculture in Berks and Schuylkill counties. The recommendations of Section VIII were drawn from innovative program examples, local stakeholder suggestions and AFT's experience in dealing with agricultural issues. A set of appendices and references provide supplementary information to the body of the report.

PROCESS FOR CONDUCTING THE STUDY

The Berks County Community Foundation (BCCF) contracted with American Farmland Trust (AFT) to find out whether agricultural infrastructure, production and marketing are sustainable in Berks and Schuylkill counties and to make recommendations on how to support a future for local agriculture. AFT conducted research, provided analysis of that research and made recommendations.

The research component included four major steps:

- Quantitative background research on conditions and trends affecting the agricultural economy;
- Stakeholder input through focus groups, personal interviews and engaging local leaders and agricultural experts in an advisory group to identify key issues and develop recommendations;
- Integration of data analysis and input from region's stakeholders, and
- Qualitative research on innovative agricultural programs from around the country that would support future farm viability in Berks and Schuylkill counties.

Background Research: AFT analyzed data from several sources to characterize the conditions of agriculture and trends affecting its future in Berks and Schuylkill counties. The USDA Census of Agriculture was used to identify key characteristics and trends, such as: number of farms and farmers, farm size, market value of products sold, value of farmland and buildings, and amount of land in farms. Census data are reported in five-year intervals and are a reliable source of data that can be used to assess change in agriculture-related trends over time.

Data from IMPLAN (Impact Analysis for Planning) were used to show the overall economic impact of agriculture and resource-based industries. IMPLAN is an input-output model that shows economic impacts and relationships among industries in a local economy. It integrates data from the National Agricultural Statistics Service, the Regional Economic Information System, County Business Patterns, and the Bureau of Labor Statistics ES-202 data on wages and employment. IMPLAN is very effective in characterizing local economies and estimating inter-industry transactions.

AFT obtained additional employment and other data from the USDA Economic Research Service and the Bureau of Labor Statistics as well as data available from local sources.

Stakeholder Input: One of the most important components of this study was engaging agricultural stakeholders in discussions about the forces influencing county agriculture and eliciting their ideas on how to change and improve current conditions to ensure the viability of agriculture for at least the next 20 to 25 years.

AFT gathered input from three sources: focus groups, interviews and the advisory committee. Between March and July, AFT facilitated eight focus groups. These were two-hour roundtable

discussions with farmers, food processors, agricultural professionals and agribusiness representatives. The purpose was to hear directly from stakeholders on:

- the current state of the agriculture in the Berks–Schuylkill region,
- challenges facing farmers and farming,
- needs for the region's farmers,
- probable future of agriculture in the county, and
- participants' hopes or dreams for that future.

AFT also conducted individual interviews with key stakeholders who could not participate in the focus groups but whose perspectives were critical to the study. The interview format was similar to that of the focus groups.

BCCF appointed an advisory group of local agricultural leaders and elected officials to provide AFT with local advice and guidance. The committee played a critical role in shaping the project, confirming the findings, pointing out where more information was needed and suggesting ideas for recommendations. AFT first met with the advisory committee in April 2005, when the committee made suggestions on the study process and what data to include. A second meeting was held in July 2005 to discuss key issues after AFT had analyzed agricultural economic indicators and conducted the focus groups. A third meeting in August 2005 was devoted entirely to brainstorming solutions. AFT presented each of five key issues, and the advisory group made suggestions on how to address each one.

Discussion of Key Findings: Once the research component was completed, AFT integrated the data analysis and stakeholder input to identify the key issues facing agriculture in Berks and Schuylkill counties.

Research on Innovative Programs: AFT then conducted research and applied its experience working with communities across the country to provide examples of innovative programs that are being used to address challenges similar to those found in the Berks-Schuylkill region. Finally AFT developed a complete set of recommendations identifying actions that could be taken by governments or other organizations to ensure the future viability of agriculture in Berks and Schuylkill counties.

BACKGROUND DATA

AFT analyzed USDA Census of Agriculture and other statistical data to understand the characteristics and trends for agriculture in Berks and Schuylkill counties. The Census of Agriculture is the most comprehensive and accepted data source to analyze agriculture on national, state or county levels. AFT also used the IMPLAN input-output model to illustrate the economic impact of agriculture, resource-based industries and processors, and Economic Research Service and Bureau of Labor Statistics data to understand employment and other trends.

The Census of Agriculture is reported every five years, most recently in 2002. It is important to note some significant changes that occurred in the census. The National Agricultural Statistics Service (NASS) took over the Census of Agriculture in 1997 and, for the first time in 2002, adjusted the data to account for farms missed or misclassified during the previous census. Census data were then weighted to approximate data for operations that had not been included. As a result of this "coverage adjustment," there was an apparent increase in the number of farms, farmers and land in farms from the figures reported in the 1997 Census of Agriculture. Thus, it is difficult to analyze trends in these areas because the adjusted figures are not comparable to data collected before the 1997 Census.

Economic Impacts and Trends

Berks and Schuylkill counties are part of Pennsylvania's southeast region that produces the state's highest value agricultural products. While Berks County's agricultural industry is larger than Schuylkill County's, both make significant contributions to their local economies.

Several measures of economic activity point to the overall health of Berks County's agriculture. Its diverse base of livestock and crop farming places it among the top five agricultural counties in the state with eight sectors generating more than $2 million annually. Poultry and cattle livestock operations account for 44 percent of total direct economic activity, nursery and greenhouse activity account for 27 percent, and forestry accounts for 12 percent. Smaller but still significant agricultural practices are non-cattle livestock, accounting for 6 percent of economic activity, and other crop farming, also accounting for 6 percent (Appendix E).

County	Market Value of Agricultural Products Sold, 2002	Average Market Value Per farm	Net Cash Income of Farm Operations, County	Average Net Cash Value Per Farm	Number of Farms
Berks	$286,978,000	$160,233	$79,483,000	$44,528	1,791
Chester	$376,771,000	$196,440	$84,194,000	$43,851	1,918
Franklin	$218,352,000	$153,986	$53,993,000	$38,104	1,418
Lancaster	$798,346,000	$150,831	$177,104,000	$33,441	5,293
Lebanon	$191,103,000	$173,101	$50,351,000	$45,649	1,104
Schuylkill	$70,290,000	$83,879	$15,508,000	$18,462	838
Pennsylvania	$4,256,959,000	$73,263	$863,628,000	$14,853	58,105

Table 1. Agricultural Economic Indicators, Selected Pennsylvania Counties, State Totals
Source: USDA Census of Agriculture, 2002

Berks County ranks third in Pennsylvania for market value of agricultural products sold, second for average market value of products sold per farm and second in average net cash income per farm, Its $44,528 average net cash value per farm is well above the state average of $14,583 (Table 1).

In Berks County all resource-based industries, which would include forestry and processors of food and forest products, generate a combined total economic output of more than $1.2 billion annually. The downstream effects of these industries—wages, income, taxes and other property income—amount to $473 million annually. Schuylkill County's agricultural and resource-based industries produce $445 million in economic output, employ 2,246 people, and contribute $56 million in employee wages to the county economy. The downstream effects of these industries amount to $140 million annually.

	Agriculture Only		All Resource-Based Industries	
	Berks County	Schuylkill County	Berks County	Schuylkill County
Economic Output	$296,950,000	$73,612,000	$1,221,716,000	$444,658,000
Employee Compensation	$62,521,000	$7,460,000	$248,441,000	$53,867,000
Employment	4,697	1,081	8,578	2,246
Proprietor Income	$16,226,000	$1,647,000	$18,665,000	$1,975,000
Value Added	$140,625,000	$25,430,000	$473,684,000	$140,115,000

Table 2. Economic Indicators for Agriculture and Resource-Based Industries in Berks and Schuylkill Counties

Source: IMPLAN, 2002.

Agricultural Product Trends

While Berks County's traditional agricultural base has grown (poultry production was up three and one half times between 1987 and 2002), its nursery and greenhouse sector grew rapidly over the past 15 years, increasing 67 percent from 1987 to 2002 (Appendix E). According to local sources, much of this was due to the rapid expansion of the mushroom industry.

Schuylkill County's agriculture exhibits a larger shift from traditional agricultural production than does Berks County's. In 1987 cattle and calves and hogs and pigs were among the top four agricultural products. But by 2004 nursery/greenhouse and vegetables had moved into the top four positions (Appendix E). According to the USDA Census of Agriculture, Schuylkill County, with 4,000 acres planted, ranks first in the state for the production of Christmas trees, second for potato production, 11th for acres in vegetables and 12th in acres in orchards. Poultry is still a dominant industry in Schuylkill County.

Nearly half of Schuylkill County's farms and a third of Berks County's farms generate $2,500 or less annually. The number of small farms increased from 682 in 1997 to 995 in 2002. However, at the same time the number of farms generating more than $2,500 has decreased significantly.

Farm Profitability

Net cash return is approximately equivalent to an average of market value of products sold less farm production expenses. The net cash return figures indicate that farming in Berks County continues to be profitable. Between 1987 and 2002, even though there was a 73 percent increase in farm production expenses, Berks County showed a 91 percent increase in net cash returns (Figure 1). Similarly, in Schuylkill County production expenses during this time period increased by 88 percent while net cash returns more than doubled.

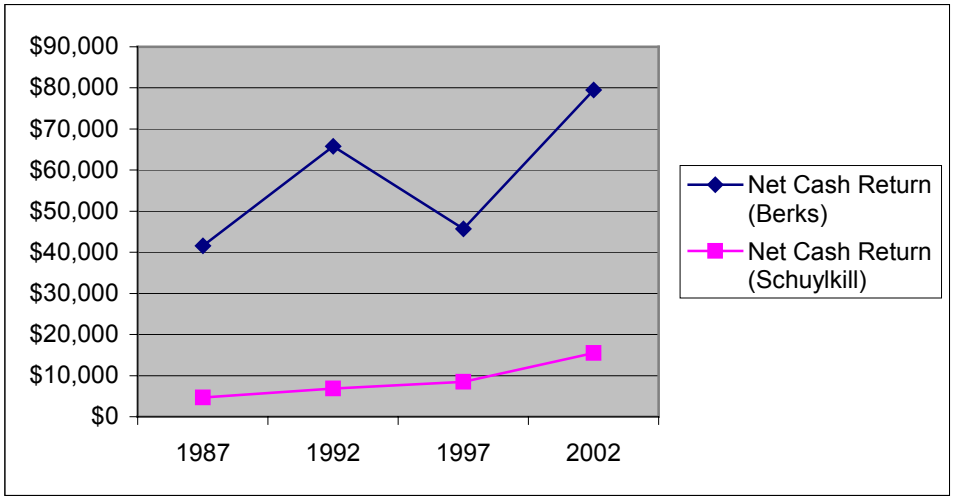


Figure 1. Farm Production Expenses and Net Cash Return on Sales, Berks and Schuylkill Counties (in $1,000s)
Source: USDA Census of Agriculture, 1987-2002

Between 1987 and 2002 farm costs in both counties increased at a rate only slightly above inflation. (Figure 2).

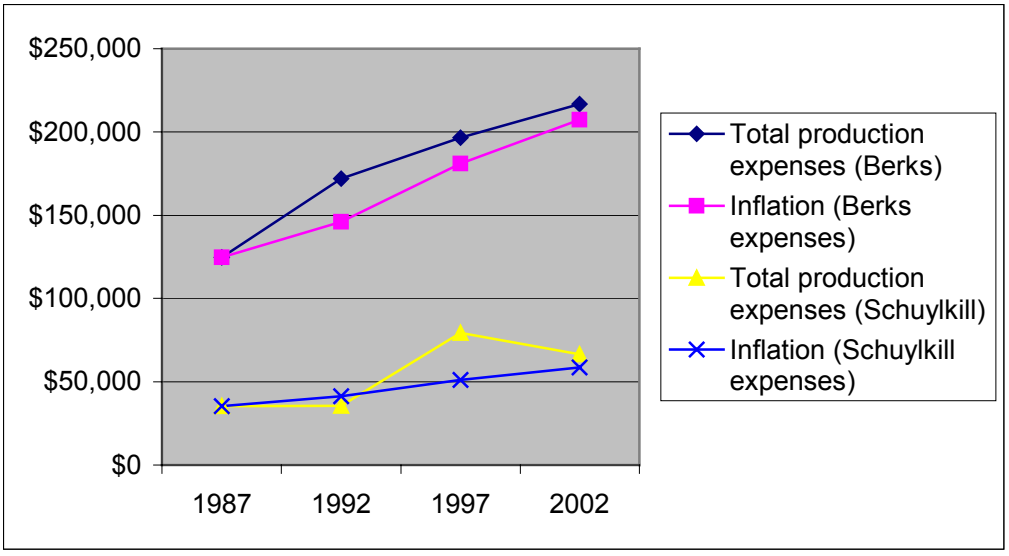


Figure 2. Farm Production versus Inflation, Berks and Schuylkill Counties (in $1,000s)
Source: USDA Census of Agriculture, 1987-2002

Increases in individual inputs of production expenses varied widely between 1997 and 2002 for both counties. For instance, in Berks County:

- Agricultural chemicals and fuel costs actually decreased overall.
- Livestock and poultry, animal feed, property taxes and rent increases were less than 15 percent.
- Contract labor rose 122 percent; supplies, repairs and maintenance increased 45 percent; seeds and plant stock increased 38 percent; and fertilizer rose 26 percent.

Most individual inputs of production expenses decreased in Schuylkill between 1997 and 2002. Fertilizer, animals and animal feed, fuels, and contract labor all decreased, while hired farm labor stayed the same. However, increases of 65 percent were seen among supplies, repairs and maintenance, 36 percent in agricultural chemicals and 30 percent in property taxes.

Input costs of repairs and maintenance went up in both counties. Property taxes increased modestly in Berks County but more precipitously in Schuylkill County. The most striking difference was the dramatic 122 percent increase in Berks County's contract labor, which may correlate with the recent expansion and high labor demands of the nursery and greenhouse industry that includes mushroom growers (Appendix F).

Land and Building Values

Escalating land values are a mixed blessing for farmers. They can be a prohibitive barrier for producers who want to expand their operation or for new farmers trying to enter the field. With agriculture's razor-thin profit margins, it is often difficult to finance large-scale purchases such as land and buildings even without escalating values. Increased values also lead to higher property taxes, rental prices and so on. On the other hand, increasing land values add to a farm family's assets, making it tempting to sell the land for house lots or other development.

Between 1987 and 2002, data estimates on land and building values in Berks County increased by 85 percent and in Schuylkill County by 88 percent (Figure 3). Overall, these values have risen at a rate slightly greater than inflation. As this study reflects only a short period of time, these

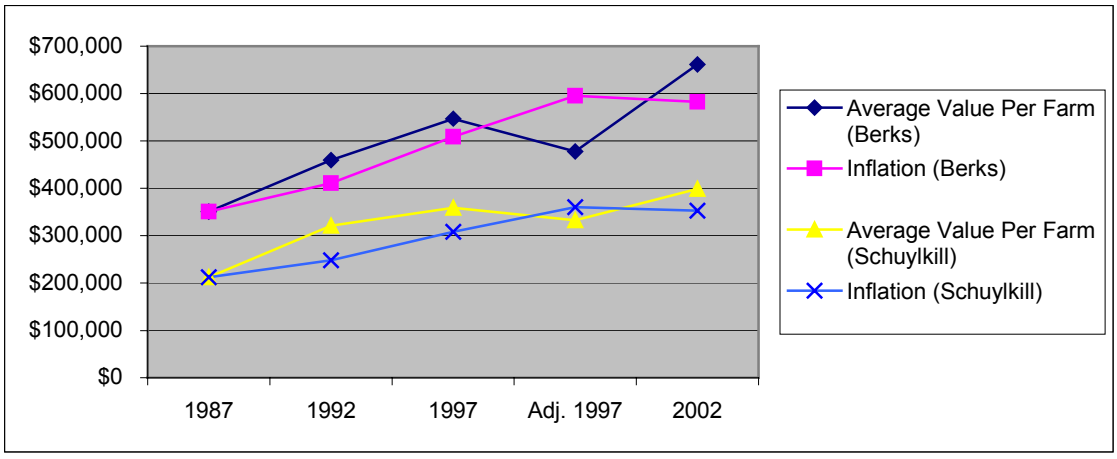


Figure 3. Average Per Farm Value of Farmland and Buildings, Berks and Schuylkill Counties, 1987–2002.
Source: USDA Census of Agriculture, 1987-2002

estimates can be inconclusive. Further research could better illustrate how the actual value of farmland, excluding farm housing, is increasing.

Cost of Living Indicators

Cost of living is a measurement of the costs of operating a business and providing for a family in a given geographic area. It takes into account typical costs such as housing, wages, transportation, consumer goods, taxes and healthcare services. Cost of living can have a significant impact on farm profitability. Though the cost of living is variable throughout the country, farms located in areas with a high cost of living must have the ability to produce a higher value product than farms located in areas with lower living costs.

The cost of living for residents in Berks and Schuylkill counties is near the national average and not excessive relative to other parts of the state (Table 4). With Reading at 98.4 and Pottsville at 95.5, the region is slightly below the national average.

	Reading	Pottsville	National Average
Housing	85.5	84.9	100
Food	102.2	98.8	100
Transportation	96.9	104.4	100
Utilities	120.3	104.8	100
Health	90	95.5	100
Miscellaneous	108.5	101.6	100
Overall	98.4	95.5	100

Table 4. Cost of Living, Reading, Pottsville, & U.S.
Source: Sperling's Best Places, www.bestplaces.net

While the costs of living indices are near national averages, Pennsylvania's agricultural real estate taxes are considerably higher than the national average and neighboring states (Table 5). Pennsylvania's Clean and Green agricultural tax program assesses farmland to reflect its current agricultural value instead of its speculative value for non-farmland. While the Clean and Green program appears to offset increasing land values, Pennsylvania's farmers pay an average of $1.01 per $100 of market value versus the national average of 80 cents. More significantly, they pay the second highest property taxes in the region, paying more than twice that of farmland owners in Delaware, Maryland and West Virginia.

In Berks County, the average farm employee earns $18,147 (Table 6). This is far below average non-farm wage in the county, which makes it extremely difficult for agriculture to maintain operations and compete with other industries in the county.

However, largely due to the nursery and greenhouse industry, farm wages in Berks County were significantly higher than either Schuylkill County's or the Pennsylvania state average. According to IMPLAN, wages for the nursery and greenhouse industry totaled $39,424,000 in 2002, representing 63 percent of all Berks County farm wages.

State	Property Tax
New York	$1.99
Pennsylvania	**$1.01**
Ohio	$0.85
New Jersey	$0.82
Virginia	$0.56
Maryland	$0.48
West Virginia	$0.21
Delaware	$0.09
U.S. Average	**$0.80**

Table 5. Average Tax per $100 of Full Market Value on Agricultural Real Estate, 1991
Source: USDA, Economic Research Service, 1993

	Average Wage Berks County	Number Employed Berks County	Average Wage Schuylkill County	Number Employed Schuylkill County	Average. Wage PA	Number Employed PA
Farm employee	$18,147	3,548	$7,831	1,029	$7,769	79,760
Non-farm employee	$35,082	206,830	$29,476	61,291	$37,669	6,889,619

Table 6. Farm and Non-Farm Wages
Source: Bureau of Economics Analysis, 2003

Farm and Land Use Trends

Between 1997 and 2002, the number of farms decreased in Berks County by 282, or 14 percent of its total number of farms (Table 7). Land in farms decreased by 10 percent over the same time period, and according to the Berks County Planning Commission, 1,100 acres were converted to development annually between 1989 and 2002. Much of this land use conversion occurred in the southern and eastern portions of the county.

Year	Land in Farms		Number of Farms	
	Berks County	Schuylkill County	Berks County	Schuylkill County
1987	243,260	96,961	1,809	647
1992	221,981	89,045	1,558	578
1997	221,511	90,331	1,568	605
1997 (adjusted)	239,810	97,711	2,073	803
2002	215,679	107,667	1,791	838
Change 1997 to 2002	**-24,131 (-10%)**	**9,956 (+10%)**	**-282 (-14%)**	**35 (+4%)**

Table 7. Land in Farms and Number of Farms, Berks and Schuylkill Counties
Source: USDA, Census of Agriculture, 1982, 1987, 1992, 1997 and 2002

In Schuylkill County, the number of farms increased by 4 percent. This increase was driven by an 84 percent increase in farms with less than $2,500 of income (Table 8). While land in farms actually increased by 10 percent, it appears that it is mostly in these small farms, which provide a side income or are "hobby" farms. This cannot be explained solely by changes in Census of Agriculture reporting because the jump was most significant from the adjusted 1997 figures to 2002. However, farms in all sales volume categories above $2,500 decreased significantly in both counties. Farms with sales volumes of $25,000 to $49,000 showed the most dramatic decrease, falling by 59 percent in Schuylkill County and 48 percent in Berks County from 1987 to 2002.

Numbers of Farms in Berks County						
Farms by Sales Volume of Product	**1987**	**1992**	**1997**	**1997 (adjusted)**	**2002**	**% Change 1997 to 2002**
Less than $2,500	311	202	231	458	583	27
$2,500 to $4,999	200	156	124	189	170	-10
$5,000 to $9,999	205	162	200	263	140	-47
$10,000 to $24,999	255	253	228	284	206	-27
$25,000 to $49,999	182	149	155	194	100	-48
$50,000 to $99,999	237	174	182	191	153	-11
$100,000 plus	419	462	466	494	439	-20
Totals	**1,809**	**1,558**	**1,586**	**2,073**	**1,791**	**-14%**
Numbers of Farms in Schuylkill County						
Farms by Sales Volume of Product	**1987**	**1992**	**1997**	**1997 (adjusted)**	**2002**	**% Change 1997 to 2002**
Less than $2,500	156	114	125	224	412	84%
$2,500 to $4,999	86	75	69	95	69	-27%
$5,000 to $9,999	106	75	86	106	65	-39%
$10,000 to $24,999	71	101	93	125	94	-25%
$25,000 to $49,999	66	60	66	75	31	-59%
$50,000 to $99,999	62	52	46	46	46	0
$100,000 plus	100	101	120	131	121	-8%
Totals	**647**	**578**	**605**	**802**	**838**	**4%**

Table 8. Farms by Sales Volume, Berks and Schuylkill Counties
Source: USDA Census of Agriculture, 1987, 1992, 1997 and 2002

Farmland Protection

To produce marketable goods, farmers need an adequate supply of affordable land. The entire farm economy depends upon a "critical mass" of contiguous tracts of arable land. In Berks and Schuylkill counties, these large tracts of are becoming increasingly fragmented by low-density residential development.

Agricultural census data on land in farms are not an accurate portrayal of farmland conversion. Because of the changes in census reporting in 2002, recent data can be particularly misleading. However, it becomes more reliable when combined with data on local development activity. Between 1997 and 2002, Berks County lost an average of 4,826 acres annually, which, when compared to the Berks County Planning Commission data, can be correlated with the 24,318 building permits issued between 1989 and 2002. In the five-year period between 1998 and 2002, the average number of building permits increased from 1,737 to 1,841 annually. In Schuylkill County, despite a population decrease of 1.5 percent between 1990 and 2000, housing increased 2 percent, increasing by 1,349 units, mostly in small towns. So although the data are not

available to quantify the amount of residential development, it is most likely occurring on productive farmland.

Pennsylvania has a state program to protect farmland, the Pennsylvania Bureau of Farmland Preservation, that works in tandem with county programs. The Berks County Agricultural Land Preservation Board (BCALPB) was formed in 1989 to purchase agricultural conservation easements from willing landowners. BCALPB was started following the creation of the state program and ranks among the top 10 local farmland protection programs in the nation. It has protected 39,878 acres on 346 farms in 28 of the county's municipalities (as of June 2005). BCALPB was funded primarily by a $30 million bond issue matched with state and federal sources.

Schuylkill County also started a county Farmland Preservation Program in 1989. Through 2004, the program had protected 76 farms on 8,863 acres. The county contributes to the Farmland Preservation Fund annually through general fund contributions in the $100,000 to $350,000 range with state funds adding another $300,000 to $500,000 per year. So far, the program has spent $8.5 million preserving the county's farmland.

Berks County has 47 municipalities with significant agricultural acreage, and as of 2003, 24 reported having effective agricultural protection zoning in place. Agricultural zoning is intended to maintain a stable land base to support farms' economic viability, discourage residential development in agricultural areas and protect farms from restrictions that limit their ability to expand and diversify. As a part of its comprehensive planning process, Schuylkill County developed agricultural zoning guidelines, and municipalities there are being encouraged to adopt these measures.

STAKEHOLDER INPUT

Engaging stakeholders was an essential part of this study. They helped groundtruth the statistical data and offered important insights on the conditions influencing the counties agriculture—both challenges and opportunities. AFT gathered input from farmers, food processors, agricultural professionals, agribusiness representatives and elected officials in three venues: focus groups, interviews, and the advisory committee. This process provided a personal texture to the statistical data and helped refine AFT's assessment of the current state of the agriculture in the region, the challenges it faces now and what is likely in the future.

AFT held eight focus groups, held individual interviews with other stakeholders and met with the advisory committee three times, starting in April 2005. The advisory committee helped guide the entire process—from making suggestions on data sources, discussing key issues and, ultimately, brainstorming solutions.

Some stakeholders were most interested in finding ways to adapt to suburbanization, while others indicated that these forces made farming less appealing and wanted to solidify a more traditional agricultural base. Many discussed the difficulty of entering agriculture due to profitability issues and land scarcity. In most of the focus groups, stakeholders discussed the positive influence of the Mennonite and Amish communities, which still farm as a way of life that is passed on from generation to generation. Stakeholders thought that the Plain Sect cultures have adapted well to change and that some of their members are among the most innovative farmers.

Overall, most participants from both counties said they would like to see current farmers be profitable enough to comfortably stay in business and inspire others to get into farming so the county would have more farms and more farmers. They wished that it were still possible to support their families from the farm operation and that their children and grandchildren could inherit the land and make a good living (see Appendix C).

Overall, AFT identified six issues that concerned stakeholders about the future of agriculture in their counties.

1. **Farm profitability**

   "I keep hoping next year will be better."

   Farmers and processors discussed declining profit margins due to the increasing cost of inputs, stagnant commodity prices and declining local infrastructure. Low margins and economic pressures have led both buyers and sellers to consolidate, which makes it increasingly difficult for new farmers to enter agriculture and for traditional mid-sized farms to compete. Foreign competition was cited as another influence on stagnant prices. Declining infrastructure was of particular concern: Farmers say it is more and more difficult to purchase agricultural supplies and equipment as dealers close up shop, leave town or switch product lines to cater to the increasing suburban population. Some farmers also were buckling under skyrocketing health insurance premiums, especially full-time farmers without off-farm employment that provides health benefits.

Despite all these legitimate concerns, most stakeholders believe agriculture is still viable and can adapt to the challenges. This may require trying new types of farming to take advantage of the population base, for example, more direct marketing, specialty products, value-added processing and catering to niche markets. Stakeholders from the nursery/greenhouse and vegetable sectors were more optimistic than those from traditional livestock operations, except for one dairy farmer who had switched to a grass-based organic system.

2. Access to farmland

"We are getting approached a lot about selling land to developers. Some farmers are selling their land for $40K/acre and getting it."

Farmers report increasing competition for land in both Berks and Schuylkill Counties. They say it is very hard to find high-quality farmland for sale or lease and, when they do, they can't afford it. Many stakeholders reported that significant agricultural acreage is being converted to development even though some, such as the Berks County homebuilders' association, maintain that growth can continue to occur at its present rate without hurting agriculture. Stakeholders also were concerned that loopholes in the Conservation Reserve Enhancement Program (CREP) also create price competition by paying high rental fees to farmers to plant grasses and trees on productive soils.

Stakeholders support state and county farmland protection programs, saying that the programs play an essential role in keeping land available and investing in the agricultural community. Farmers who participate in the programs do so because they love their land and they love to farm.

Some farmers expressed concern over future development and water conflicts in drought years and suggested investing in downtown redevelopment to make it more attractive for incoming residents and to relieve some development pressure from farmland. One discussion about highways suggested that improvements to the main roads would better accommodate transportation of agricultural products and keep more cars off the back roads.

3. Conflicts with suburban neighbors

"*People who are moving into the country want to see the rural landscapes; but do not understand or appreciate farming operations."*

Farmers reported that new suburban residents moving into the region are quick to complain about routine farm sights, smells and activities including, manure, spraying of chemicals, noisy trucks at night and early in the morning, slow farm equipment on the road and others. The biggest problem they report is growing opposition to concentrated livestock operations. Producers indicate that new residents are mobilizing against animal agriculture at town meetings; in at least one case, the opposition was organized by a national animal rights group."

4. **Lack of education and outreach to government officials and the general public**

"People need to know about everything that needs to happen to put a piece of food on their dinner plate. We have to apply chemical fertilizers, spread manure, use machinery—people are offended by basic agricultural operations. They end up complaining and this takes up farmers' time; we need strong right-to-farm laws."

Stakeholders said the general public is out of touch with farming and farmers. New suburban residents don't understand the multiple benefits of farmland ranging from environmental to economic.

As the number of farmers shrinks relative to the county population, fewer and fewer people have a relationship to agriculture. Stakeholders called for new ways to reach out to the general public and government officials to bridge the gulf between the agricultural community and its suburban neighbors and legislators—beginning with school children and continuing all the way up to the governor's office. Getting the message out to elected officials was seen as particularly important.

Stakeholders discussed how government officials at all levels are becoming less and less supportive of agriculture and how the new suburban electorate has become increasingly influential in local politics and with township supervisors. Producers report that some townships have enacted anti-agricultural ordinances, such as prohibiting the building of large animal barns. On the state level, cuts to agricultural programs are seen as damaging, and some producers suggest that the governor's office is no longer interested in agriculture.

5. **Onerous policies and regulations**

"Farming is going downhill because of property tax structure; we have to pay property taxes at a commercial rate for processing agricultural products. School taxes are too high a burden, which goes against the people who have been in the region a long time."

Producers discussed numerous policy and regulatory issues that they thought were detrimental to agriculture and/or prohibitively expensive to implement. These include zoning ordinances, new state nutrient management regulations and Environmental Protection Agency (EPA) air quality regulations, CREP and property taxes. Many producers wanted the state's Clean and Green program to adopt an agricultural use assessment for agricultural buildings in addition to farmland. Stakeholders were concerned about future cost increases in recordkeeping and product tracking that can't be passed on to consumers.

6. **Farm Labor and the Next Generation of Farmers**

"The younger generation today is largely disinterested in agriculture and working on farms. We are outsourcing agriculture along with everything else to other countries."

There was considerable discussion about the relative lack of interest among the general population in working on farms and/or choosing farming as a way of life. Farmers cite

labor shortages as common occurrences. While foreign workers have started to fill the gap for farm labor, there are often not enough of them to meet the demand and many have questionable legal status. The younger generation of the local population mostly opts for higher paying jobs—some have chosen to make a career out of farming, but this is the exception.

Despite the challenges, stakeholders in Berks and Schuylkill counties are committed to a future of farming and farmers. Most said they would like current farmers to remain profitable enough, not just to keep farming themselves, but, to inspire more people to get into agriculture.

Actions taken now to address these trends will go a long way toward making agriculture a viable industry in the next generation. Stakeholders, while aware of the threats to local agriculture, were generally optimistic about farmers' ability to adapt to economic and demographic changes. Their insights and ideas are vital to the development of strategies that will sustain Berks and Schuylkill counties' agriculture.

"*Farmers, builders and local government officials should be able to work together and use their imaginations to agree on a way for both farming and development to thrive."*

"We have a good situation here; more farmers are concerned about quality [of their product] than nickel-and-diming to death."

DISCUSSION OF KEY FINDINGS

Agriculture is at a crossroads in both Berks and Schuylkill counties, where farmers are trying to adapt to rapid growth and development while confronting a host of economic and environmental pressures. Despite these changes, agriculture remains an economic engine, generating nearly $370 million annually in sales. When combined with forestry, food and forest product processors, these natural resource industries supply more than $1.6 billion in total economic output and another $613 million of downstream effects.

Berks County ranks second in the state for average market value of products sold, and its $44,528 annual net cash operator income is well above the state's average of $14,853. Specialty crops help Berks and Schuylkill counties distinguish themselves: Berks County's mushroom industry is one of the largest in the state, while Schuylkill County leads in Christmas tree acreage and potato production.

However, farmers and stakeholders in both counties are aware that the future of agriculture is at risk. Berks County records suggest that since 1989 more than 1,100 acres of farmland have been converted to development annually, and between 1997 and 2002, the amount of land in farms decreased by nearly 5,000 acres per year. The number of farms and farmers in Berks County is also decreasing, as the county lost 282 farms in the same five-year period. Most importantly, the number of farms in both counties that sell more than $2,500 annually is in sharp decline. The only increases seen in the number of farms were among the smallest farms (less than $2,500 annually) by sales volume. Farms generating less than $2,500 annually will not contribute to a viable agricultural industry long-term. Unlike many areas where consolidation is driving farms to get larger and larger, in Berks County farms with $100,000 or more of sales dropped by 20 percent and in Schuylkill County by 8 percent.

Stakeholders' most pressing concern was how to remain profitable in the face of rapid suburbanization and a challenging economic and regulatory environment. Even though net cash income is keeping ahead of inflation, producers described stagnant commodity prices and rising input costs as barriers to sustained profitability. Farm wages in both counties are well below non-farm wages and are often seasonal, requiring farm employers to compete with year-round, higher-paying manufacturing jobs. Foreign competition has cut into profits, and farmers in the Berks–Schuylkill region struggle to keep up with high labor and input costs and a diminished agricultural infrastructure. Commodity prices have been flat for 25 years, but rising taxes and land prices make it difficult for farmers to expand their operations, much less for new farmers to enter agriculture. Farmland and building values outpaced inflation between 1987 and 2002, increasing by 85 percent in Berks County and 88 percent in Schuylkill County.

Along with foreign competition, local farmers have to compete for land—not just with developers but also with federal conservation programs such as CREP. Some farmers contend that the unintended consequence of CREP has been to inflate land values and make it harder to find productive rental land. Of course, farmland also is preferred for development because it is flat and well drained and offers scenic pastoral views.

Not surprisingly, AFT found strong consensus that the county farmland protection programs were essential to the survival of farming in both counties. One farmer said that by preserving the farm next to his, the program "helped keep the developers from knocking on the door." Less expected was the concern that new residents would compete with farmers for water, as well.

As the general population increases and the number of farmers decreases in Berks and Schuylkill counties, those involved in agriculture become a smaller percentage of the general population. Over time, fewer people know a family or friend involved in some aspect of agriculture. The result is an increasing disconnect between farmers and the general public.

New residents who move to rural areas for the open space and scenic views of a well-managed landscape may not understand that farming is a business. Often they do not want to live next door to a commercial operation, resulting in a series of conflicts. Sometimes they complain directly to farmers about the routine agricultural sights, sounds, smells and chemical applications. Sometimes they take their complaints to public meetings.

The disconnect is not only with new residents. Increasingly, Berks and Schuylkill counties' elected officials also are unfamiliar with the realities of production agriculture and make policy and regulatory decisions that may have an unanticipated and unfavorable impact on family farmers. Some townships have enacted suburban ordinances that place onerous restrictions on agricultural operations. For example, a new township ordinance is preventing one Berks County farmer from expanding his animal operation, even though his farm was preserved through the county farmland protection program.

Farmers also report that restrictions on agriculture vary significantly from township to township, so it is difficult to know what is or is not allowed in all the various townships that have active agricultural operations. State and federal regulations add to the mix of local ordinances that have added production costs, time spent on compliance, and/or have limited the ability to expand or, in some cases, even maintain the size of the operation.

All of this results in a less supportive environment for farming in the two counties, which coupled with high land prices and low margins, discourages the next generation from entering agriculture. As one farmer lamented in a focus group, as a society we are "losing our love of the land" and the agricultural knowledge that goes along with it. As fewer and fewer people know agriculture, it tends to get compromised and overlooked when planning for the future and setting policy.

Despite these challenges, stakeholders generally expressed optimism about the future. Farmers in both Berks and Schuylkill counties took pride in their families' strong commitment to their land and its legacy. They discussed agriculture's diversity and innovation with enthusiasm and specifically mentioned the county's agricultural land preservation program as a positive force. Farmers who recently had implemented new and innovative marketing and production practices were especially positive about the future. From organics, to on-farm processing and wineries, equine operations and grass-based dairying, the Berks and Schuylkill county farmers are taking advantage of new opportunities and technologies to diversify and add value to their operations. Traditional Plain Sect farmers also were confident that through their communities' commitment to making agriculture their preferred occupation, they would find ways to keep their farms viable.

Finally, stakeholders discussed ways for agriculture to become more proactive, for farmers to get more involved in their communities and take leadership positions, and for the agricultural community to work with other groups to ensure a viable future.

All told, AFT found that Berks and Schuylkill counties have sufficient human and natural resources to sustain a viable future for agriculture. The skills, experience, energy and enthusiasm of the counties' farm communities are more than enough to respond effectively to the challenges they face. To put this energy and enthusiasm into action, however, farmers must increase their involvement in local planning and policy making, develop a group effort to advocate and educate about farming, and be proactive in working with the rest of the community to ensure a favorable climate for farmers and farming.

Agriculture needs new and innovative approaches to sustain itself. Already, Berks and Schuylkill counties have responded with proactive solutions such as alternative enterprises, farmland protection programs and new Cooperative Extension programs. These efforts must continue, and new initiatives must be undertaken that work toward greater sustainability for agriculture. The following section presents examples of innovations being used across the country to address issues similar to those raised by stakeholders in Berks and Schuylkill Counties. Some of these programs and policies could be adapted and adopted by Berks and Schuylkill county governments and/or organizations in working to ensure a viable agricultural industry into the future.

INNOVATIVE PROGRAMS

Around the country, farmers in many agricultural communities are farming on the edge between their rural heritage and advancing urbanization. As a result, many communities have created new approaches to support innovation, save land and improve communications with new residents who may have a romantic notion about family farmers but little knowledge of the practical realities of production agriculture.

AFT drew upon its extensive field experience and conducted research on innovative programs that are being used across the country to address challenges similar to those found in the Berks–Schuylkill region. This section is organized around the major themes raised in the discussion of key findings and describes programs and policies that might be adapted for use in Berks and Schuylkill counties to improve the outlook for agriculture. More detail and contact information for each program is provided in Appendix D.

FARM PROFITABILITY

AGRICULTURAL VIABILITY PROGRAMS

Massachusetts pioneered the idea of a farm viability enhancement program in 1994 to improve the economic productivity and environmental integrity of participating farms. A major impetus behind the program was to help the state's struggling dairy industry. While the program was not limited to dairy, farm leaders believed the development and implementation of farm viability enhancement plans could help ailing dairies become more profitable.

Other states and counties have also developed agricultural business and economic development programs to boost and maintain agricultural profitability. Developed on both the state and county levels, a number of these programs could serve as models for Berks and Schuylkill counties.

In order to stimulate growth in the agricultural industry, business expertise is needed. Most farmers focus on production and have no other option than to sell to a decreasing number of buyers at prices that have not increased since the early 1980s. Agricultural economic development assistance has helped farmers diversify into new product lines and find new, more profitable, markets; undertake value-added processing; sell directly to consumers; and add other revenue generators to the farm, such as agritourism ventures through grants, low-interest loans and technical assistance. These efforts have also successfully recruited agricultural businesses, such as food processors, to support the local farm industry.

State-Level Programs

The Massachusetts Farm Viability Enhancement Program provides a team of business consultants and $20,000–$40,000 grants to farmers who meet program eligibility requirements and agree not to develop their land for five to 10 years. Consultants work with a farmer to develop business plans and suggest ways to increase on-farm income through improved management practices, diversification, direct marketing, value-added ventures and agritourism. The plan will also make recommendations on environmental and resource conservation practices for participating farms. Connecticut, New Jersey, and New York

among other states have followed Massachusetts' lead and created similar programs. (See Appendix D.)

County-Level Programs

Many counties have developed their own agricultural viability and economic development programs. These programs are tailored to the unique needs of a county's agricultural industry. For example, Montgomery County, Maryland, created the Agricultural Services Division, a branch of the County Office of Economic Development, to preserve and support the county's agricultural industry. The division works by preserving agricultural land and by providing economic development assistance to farmers. It also provides legislative and regulatory assistance, energy tax relief and drought assistance to farmers, and coordinates a program that enables county vehicles to run on locally produced ethanol.

In another example, the Loudoun (Virginia) County Board of Supervisors formed a Rural Economic Development Task Force in 1997 to: "construct a Rural Economic Development Plan that fosters economic growth that is compatible with preservation of natural resources, that strives for a high value of agricultural production that may be different from traditional agriculture, that supports the equine and tourism industries, that maintains high quality farmland, and that recognizes the need for continued low density planned residential growth." The task force's goal was to double the value of the county's rural economy over a 10-year period. Related services offered through the county's Agricultural Development Office include farm business planning, farm tours, guides to county farm products, a wine trail, and promotion of the county's equestrian industry. (See Appendix D for more examples.)

AGRICULTURAL ENTERPRISE DISTRICTS

Some states have developed agricultural enterprise districts to attract agricultural businesses. Enterprise districts or zones are designated areas in which government encourages businesses to set up operations in exchange for tax credits. Typically located in blighted urban areas to encourage industry development and increase local jobs, enterprise zones have recently been adapted to encourage agricultural-related business growth in agricultural areas. For example, efforts in Delaware have enabled a vegetable processor to locate in a part of the state that grows a large volume of lima beans, giving local farmers a ready market for their product. Another district might also seek to attract farm equipment and supply dealers.

In 1997, Michigan became the first state to adopt tax-free Renaissance Zones to help create new jobs and increase investments. These zones are credited with luring 128 companies to the state, creating 3,663 new jobs and generating more than $330 million in new investments. A new initiative started in 2000 supports Michigan's agricultural industry with the creation of Agricultural Processing Renaissance Zones (APRZ), which are exempt from state and local taxes and open to qualified processors who want to start or expand operations in Michigan. Up to 20 such APRZs will be allowed across the state. Virginia has developed a similar program, set to go into effect in 2007.

FARMLAND AVAILABILITY

As farmland becomes developed and market values rise, it becomes more difficult for a farmer to acquire new land for farming. In Berks and Schuylkill counties, Purchase of Development Rights (PDR) programs have been effective in preserving farmland, but many in the agricultural community suggest that more must be done to preserve more farmland faster. There are several types of innovative programs that should be considered in working toward this goal (see Appendix D).

EMERGENCY FUNDING TO PURCHASE FARMS AT HIGH RISK OF BEING DEVELOPED

Applying to a PDR program usually requires a long-term investment of time. In Pennsylvania, farms must be enrolled in an agricultural security area before being considered for the state's farmland preservation program. Typically there are long waiting lists and not enough funding to protect all qualified farms in any given year. The transaction itself can then take a year or more to be finalized. Thus, sometimes these programs are not nimble enough to protect land that is imminently threatened by development.

Some counties have responded to this by developing "emergency" measures to quickly preserve strategic farmland under impending threat of development. One strategy is to offer potential buyers the easement value of the property at the time of closing. This gives potential buyers who would otherwise be unable to afford the farm an opportunity to purchase the land while protecting it at the same time. This strategy is employed by the PDR program and uses publicly generated funds for the up-front payment.

Carroll County, Maryland, developed its Critical Farms Program in 1992 because it found that the state's Maryland Agricultural Land Preservation Foundation (MALPF) could not quickly preserve farmland at high risk of development. To address these issues and support its Master Plan goal of preserving 100,000 farm acres, the county created a special program to assist new farmers and existing farmers seeking to acquire additional farmland. Carroll County's Critical Farms Program offers qualified applicants 75 percent of their farm's easement value for the option to acquire the easement in full after a period of five years. When the applicant buys the farm, the program settles for the easement option and places the farm in the Maryland Agricultural Preservation District. The easement option requires that the new owner apply for easement purchase to the MALPF program at every opportunity over the next five years. If MALPF accepts the new owners application and purchases the easement, the county is reimbursed and the new owner keeps anything above the initial easement payment.

In another strategy, a private land preservation organization (usually a land trust) purchases the property, placing it in a conservation easement and selling it to an interested buyer. The land trust conducts a capital campaign and establishes a revolving loan fund for the purchase. This fund provides loans for land purchases, which are paid back with interest. In turn, the land trust may be eligible to sell the easement to the state or county PDR program to recoup the easement cost. If the easement was donated, funds must be raised from private or governmental sources to cover its cost. Additional funding can be leveraged by the seller agreeing to sell the property below market value through the federal Farm and Ranch Land Protection Program (FRPP) that provides matching funds to dollars raised locally.

In Maryland, the Eastern Shore Land Conservancy (ESLC) uses an innovative measure known as the Land Rescue Revolving Fund to protect properties in six Eastern Shore counties that are threatened by imminent development. Once a property has been targeted for protection, ESLC raises local funds through private donations, foundation grants and government grants. Once sufficient funds have been raised to protect a property, ESLC is eligible for a dollar-to-dollar match through the FRPP. ESLC can leverage additional funds through the use of a "bargain sale" where the landowner agrees to reduce the purchase price and effectively donates a portion of the value of the land, typically for a tax advantage.

Farmland Mitigation

Mitigation programs require that developers who convert farmland to development mitigate for the farmland lost by permanently protecting an equivalent acreage of farmland elsewhere. The developer places a conservation easement on the other farmland acreage or pays the appropriate governmental agency for the value of an easement on the converted acreage. Then the governmental agency uses this funding to place an easement on another parcel of unprotected land.

The City of Davis, California, established an agricultural mitigation requirement through an article amendment to its Right-to-Farm and Farmland Preservation ordinance. The city's "no net loss of farmland" objective requires developers to permanently protect one acre of farmland for every acre of agricultural land they convert to other uses. The ordinance is designed to implement agricultural land conservation policies in the city's general plan.

Agricultural Protection Zoning

Agricultural protection zoning is intended to support agriculture's ability to be self-sustaining, minimize incompatible adjacent land uses, and make it easier to develop and expand farm businesses. In some municipalities, minimum lot sizes are established that correspond to the median size of farms in the local area—typically from 25 acres in some Pennsylvania counties to as much as 840 acres in California.

Yolo County, California, created agricultural zoning districts that establish minimum lot sizes of between 20 and 320 acres through a sliding-scale zoning ordinance. Lot size requirements are intended to preserve a farm's ability to be self-sustaining and minimize conflicts with neighbors. The acreage minimums in each zone correspond to the farm size in each respective zone. Yolo's agricultural zoning ordinance works with the City of Davis's farmland mitigation ordinance. Similar programs exist in DeKalb County, Illinois; Polk County, Oregon; and Clark County, Virginia (see Appendix D).

Transfer of Development Rights (TDR) Program

TDR programs work to transfer development potential from agricultural areas (sending zones) to areas more suited for development (receiving zones), thereby preserving farmland. These programs are most successful in areas where there is market demand for development rights. There must be an incentive for a developer to increase the density and be willing to pay for increasing the density. This creates a market for development rights, enabling farm owners to be compensated for transferring their development potential to more appropriate areas.

The Town of Warwick, Pennsylvania, created its TDR program in 1993 to preserve farmland and promote industrial development in targeted areas. The program established the town's 3,787-acre Agricultural Security Area as the sending area and the town's industrial zone as the receiving area. The township serves as the broker between farm owners and applicants in the industrial zone.

PROPERTY TAX RELIEF

A number of municipalities provide property tax relief on preserved lands as a way to compensate landowners for permanently protecting their land and as an incentive for others to place their land in preservation. Taxing authorities may offer a tax credit on preserved land or may specify that the land meet other requirements, such as having a nutrient management plan. The amount of the credit may vary with the length of the easement; maximum credits are awarded for permanent preservation and lesser credits for term easements. In other cases, a municipality may elect to freeze taxes on preserved lands.

In 1996 Pennsylvania's Act 153 authorized school district boards to enact a tax freeze on protected agricultural and open space lands. The Council Rock School District was the first to take advantage of this measure by freezing agricultural assessment levels on November 22, 1999. Eligible lands in the district have had their development potential extinguished by a local government acquiring their "open space property interests" through an easement acquired under the state Agricultural Area Security Law or through the transfer and retirement of development rights by a local government "without their development potential having occurred on other lands." The Council Rock action affects farmers in five townships in Bucks County, Pennsylvania.

Seven counties in Maryland work in a similar manner by offering tax credits on preserved land, while the state of New York offers an exemption on agricultural buildings (see Appendix D.)

AGRICULTURAL LEADERSHIP AND IMPROVING RELATIONS WITH THE NON-FARM COMMUNITY

As the number of farmers decreases among the general population, so too does the number of farmers holding elected or appointed positions. This situation is compounded by the time and schedule demands of agriculture that limit the participation of farmers who might otherwise wish to get involved. Without the farmer's voice, policies are being enacted that sometimes unwittingly harm well-managed farm operations.

Farmers in Berks and Schuylkill counties need a new form of agricultural leadership. They need to work with county and municipal governments to develop agricultural and land use policies that support farming. Other states and counties have developed committees, commissions or boards to be a liaison between government, the community and agriculture. These groups consist of farmers, and their purpose is to provide guidance and input on how governmental actions could influence the agricultural community and to recommend measures be taken that are supportive of agriculture.

The Kent County, Maryland, Agricultural Advisory Committee consists of one farmer from each of the county's seven election districts. County commissioners appoint members to five-year terms. The committee was formed by legislation in the early 1980s and gave the farm community

a direct voice to elected officials. The committee advises county commissioners on all issues affecting agriculture in the county. Most recently on development issues, re-writing right-to-farm laws and managing sewage sludge.

Massachusetts, New Jersey and New York all have developed similar programs (see Appendix D).

Finally, measures should be taken to improve the agricultural–suburban interface. New residents need to understand the importance of agriculture in their communities. Right-to-farm laws can specify that any new residents moving into farm areas be notified that the local government is supportive of the agriculture industry and that agriculture is the preferred land use. Additionally, these ordinances may contain provisions that call for a developer to set aside a buffer of a specified width between the development and farm to minimize any incompatibility. The City of Davis, California, also maintains a policy of notifying all purchasers and tenants of nonagricultural land of its proximity to existing agricultural land and of its support of agricultural land and operations. This notification requirement also informs purchasers of nonagricultural land of the effects of living near a working farm. The city's ordinance also contains a buffer requirement for new developments adjacent to land designated in the general plan as agricultural.

RECOMMENDATIONS

The recommendations outlined below were developed to address changes in farmers' marketing and production practices or to adopt new public policies that could improve the long-term viability of farming in Berks and Schuylkill counties. Recommendations were developed with local input as well as AFT's research on innovative policies and programs being used in other parts of the country.

After analyzing county agricultural data, and listening to participants in focus groups, interviews and advisory committee meetings, AFT identified key issues that need to be addressed to sustain agriculture in the county. Recommendations identify actions that can be taken by a variety of organizations, including governments, to support agriculture. They are divided into three sections: General Recommendations, which are organized under each of four key issue areas and apply to both counties; Recommendations specific to Berks County; and Recommendations specific to Schuylkill County.

GENERAL RECOMMENDATIONS

FARM PROFITABILITY

As input costs continue to escalate and commodity prices remain flat, improving farm profitability is vital to retaining the agricultural industry in Berks County.

1. Create an Agricultural Economic Development entity to increase the profitability of local farms.

Traditional economic development focuses on business recruitment and retention and does not typically work with the agricultural community. While farmers may be interested in diversifying their operation and growing new products, significant risk is involved both from the production and marketing standpoints. Both counties need an agricultural economic development office to supply the expertise, resources and new ideas to support agricultural prosperity. This office would stay on top of new opportunities, changing consumer preferences, biomass crops and so on (see Appendix B for an analysis on new and emerging markets). It would provide a "one-stop shop" for all activities related to agricultural economic development. Activities could include:

a. **Conducting market analyses** to identify ways to increase local farm profitability, such as value-added processing, direct marketing, cooperatives, renewable energy and regional cooperation. Findings would help farmers, agricultural businesses and lenders proceed with entrepreneurial initiatives while minimizing risk.
b. **Developing a branding campaign** to promote awareness and consumption of local farm products.
c. **Maintaining a Web site** with all relevant information for county farmers and agricultural businesses, such as county, state and federal programs; new regulations affecting agricultural producers; and so on.
d. **Advertising local farm products** through vehicles such as a directory, farm map and/or brochure to raise consumer awareness of local farms and how to find locally grown products. Encourage consumers to seek out local produce in farm markets and

supermarkets. Work with restaurants to increase their use of local foods and hold an annual food fair. This initiative will educate the consumer on local farm issues and increase the local market for farm products.

e. **Providing low-interest loans and grants** for new and/or expanding agriculture-related businesses.
f. **Offering technical assistance** to help innovators develop ideas for new agriculture-related businesses.
g. **Securing affordable group health insurance rates** for farmers, possibly in the form of a cooperative.
h. **Working on agricultural work force issues**.

2. Increase capacity or funding for Berks and Schuylkill Counties Cooperative Extension to allow for program expansion that would assist farmers.

Cooperative Extension has always played an essential and important role to agriculture. In order to address the issues currently facing agriculture in the Berks–Schuylkill region, Extension programs should be expanded to include:

a. **A whole farm-planning program with advisory teams** available to all farms in the county. Professional advisory teams would consult with each farmer individually and design a sustainable whole-farm plan that addresses long-term planning, profitability and environmental stewardship issues.
b. **Expanded assistance to farmers on highly profitable niche markets.** Niche markets offer farmers options for diversification and, on a smaller scale, offer new farmers a means of getting started.
c. **Assistance to large-scale producers** on how to stay profitable in an increasingly urban/suburban environment. As the countryside in Berks and Schuylkill counties continues to suburbanize, production agriculture must find ways of farming that can co-exist with new development and remain profitable.

3. Increase property tax relief.

Property taxes are one of the most significant production expenses for farmers and always increase. While it is fair and just for farmers to pay taxes appropriate to the public services they are demanding, research suggests that farms are paying for costs associated with residential growth such as the building of public schools. Farmers in Pennsylvania pay higher real estate taxes than farmers in most neighboring states. The following should be considered:

a. **Explore a property tax freeze only on farms that have been permanently preserved.** This would reward those who have chosen to preserve their farms and encourage others to protect their land. The Council Rock School District in Pennsylvania was the first school district to enact Act 153 of 1996 by freezing assessments on agricultural properties in five townships in Bucks County.
b. **Work to improve Clean and Green** to further reduce the tax burden on farmland in active production.
c. **Modify the assessment on agricultural buildings** so that it reflects the agricultural value, not the fair market value. Barns and other agricultural structures that are part of an agricultural operation should be assessed by their agricultural value just as is the

agricultural land. New York's Real Property Tax Law takes this idea one step further by exempting agricultural structures from taxation.

4. Designate "Agricultural Renaissance Zones" to attract agricultural businesses.

Agricultural Renaissance Zones are designated areas where new agricultural businesses are encouraged to locate. These businesses are allowed to operate tax-free for a number of years, before taxes are gradually phased in over several years. For example, Michigan's Agricultural Processing Renaissance Zones are designed to attract new agricultural businesses into the state by offering them exemptions on state and local taxes. Michigan is in the process of designating 20 such zones across the state.

FARMLAND AVAILABILITY

Agriculture needs open, productive land to exist as a viable industry. To ensure the future of agriculture in the county, measures need to be taken today to retain an adequate land base.

1. Research and develop a new program to protect land at-risk for development.

While current farmland preservation efforts in Berks and Schuylkill counties have been effective in preserving farmland, many in the agricultural community suggest that additional measures need to be taken to protect farmland threatened by development. A program of this nature could utilize public and private funding sources and work with new farmers by offering a partial easement payment at the time land is purchased. Examples of how this is occurring in other areas are included in Appendix D. This program could also be expanded to give low-interest loans to farmers for investing in capital improvements to their farms.

2. Conduct a feasibility study on implementing a Transfer of Development Rights (TDR) Program.

TDR programs generate funds for farmland preservation from the private sector and focus development around existing towns and cities. Given the pace and rate of residential development in Berks and Schuylkill counties, there may be a viable market for supporting a countywide TDR program to complement the existing PDR program. Essential elements of a TDR program include:

a. A viable market. For TDR to be effective, there needs to be a market—one in which developers are willing to pay for increasing densities in developments.

b. Township willingness to participate. Townships must be willing to designate receiving and sending zones for the program to be effective. The Warwick Township, Pennsylvania, TDR program has permanently protected 608 farmland acres as of 2004 by designating the townships industrial zone as the receiving area.

3. Explore county involvement in the CREP Oversight Committee.

The CREP Oversight Committee determines the parameters for Pennsylvania's CREP Program, including eligible practices. Many farmers throughout the study process suggested that the

program should be reformed so that high-quality soils are left in production. The committee is organized through the state Farm Service Agency (FSA) Office in Harrisburg.

4. **Promote development of urban areas and brownfields through the use of tax incentives.**

Downtown revitalization projects have become a widespread and popular means of attracting people to work and live downtown. Successful revitalizations have reversed the trend of out-migration in some cities, such as Baltimore. Encouraging downtown development through tax and other incentives could create a new housing market that does not consume agricultural land.

5. **Develop a policy that ensures that all new development proposals, including residential, commercial and roads, are designed to have little or no impact on prime agricultural soils.**

If prime soils exist on a parcel to be converted to residential development, the housing should be situated around the prime soils so agriculture can still take place on the prime soils. Road construction projects should be designed to minimize impact on prime soils.

LEADERSHIP

As the general population increases, the number of active farmers and those familiar with agriculture is decreasing. As a result, the views of farmers and the agricultural community are often not heard in governmental processes. Farmers experience difficulties in attending regular meetings and routinely participating in governmental processes due to the seasonal demands of farming.

1. **Encourage Berks and Schuylkill county farmers to run for town boards and planning commissions.**

Berks and Schuylkill county stakeholders suggest that farmers are underrepresented in local government. While the demands of farming may limit farmer participation, many feel farmers interested in participating in local government should seek local offices to ensure adequate representation of the farm community.

2. **Develop programs that encourage the next generation of farmers to get into and stay in agriculture.**

Increased costs of inputs, land and equipment combined with stagnant markets for agricultural products have made it more difficult for new farmers to get started in agriculture. Incentives should be designed to attract new farmers and make it easier for them to get started. The generational transfer of agricultural land also needs to be improved. Children of farmers are often not able to afford to pay the taxes associated with large land parcels and many opt to sell

the land. A new system is needed that makes it easier for farm heirs to hold on to family land. Some ways to address these issues include:

a. **Eliminating barriers for participation in both Future Farmers of America (FFA) and Vo-tech programs.**
   Most high school students interested in agriculture either participate in FFA or attend a Vocational-Technical high school. However, it is not possible to be involved in the FFA program while attending Vo-Tech, and FFA students do not have access to the educational opportunities at Vo-Tech.

b. **Expand resources to beginning farmers.**
   Berks and Schuylkill counties should promote the Pennsylvania Farm Link program and look into the other programs mentioned below to address new farmer issues.
   i. **Pennsylvania's Farm Link program.** The state's Farm Link Program offers programs for new and beginning farmers, and apprenticeships and courses on passing on the farm.
   ii. **New England Small Farm Institute's Growing New Farmers program** is funded by USDA to provide resources, partnerships and networking opportunities to new farmers, to educate about the needs of new farmers, and to develop new programs to benefit new farmers.
   iii. **The Beginning Farmer's Center** at Iowa State University was created by state legislation in 1994 to provide a resource specifically for new farmers. The center works to assess the needs of new farmers, creates programs to benefit new farmers, and links new farmers to retiring farmers who wish to pass their operations on to the next generation.
   iv. **The North Carolina Farm Transition Network** was created to assist retiring farm families pass on their farming operations to the next generation. Equally important, the network works with young and beginning farmers to provide them with the resources and skills they need to start and run a farm business.
   v. **The National Farm Transition Network** has researched the needs of retiring and entering farmers and has responded by developing programs to facilitate farm exit approaches and link them with entry strategies for new farmers. The network holds an annual conference on farm transitions.

PUBLIC OUTREACH AND EDUCATION

A prevailing theme among Berks and Schuylkill county farmers and farm leaders is the need to educate the non-farm sector on agricultural issues. Many residents of the counties, especially new ones, are unfamiliar with agriculture and unaware of its needs and challenges. The following recommendations would bridge the gap between farm and non-farm communities.

1. **Develop a media and outreach campaign that includes farm tours and open houses to educate Berks and Schuylkill County residents on agricultural issues.**

Many people move into the countryside to enjoy the rural character and scenic atmosphere provided by agriculture. Often, these new residents bring with them romantic notions of farms and farmland that do not include the sights, smells and sounds of production agriculture. A permanent effort should be established to educate non-farm residents on the following issues:

a. **Community benefits of farming and farmland** from field to table;
b. **Success of the of the Berks and Schuylkill County Agricultural Land Preservation Programs** in supporting these benefits;
c. **What it takes to operate a farm and manage a working landscape,** including routine operations such as manure spreading, fertilizer/pesticide spraying, slow-moving vehicles, etc.
d. **Expand the role of agriculture in public schools.** Today, young people often are several generations removed from farming, with little knowledge of what happens on a farm. Working through the public school system, farmers and communities can reconnect today's youth to the farms that sustain us. Two effective ways to make this connection and increase students' exposure through the public school system are:
    i. Work with school boards to make "Ag in the Classroom" a mandatory part of school curriculums. In this program, teachers take a one-week course that is supported by the agricultural community and bring back to the classroom what they've learned.
    ii. Develop farm-to-school programs that provide a market for local farm products in local schools, allowing school children to better understand local agriculture by eating the food it produces. First steps in the process would include meeting with the Berks County Intermediate Unit (BCIU) to determine how to proceed.

2. **Develop a "Farm and Rural Issues" training program for newly elected public officials.**

Many township supervisors come into office without a comprehensive understanding of local agricultural issues, including right-to-farm laws, agricultural zoning, Pennsylvania's Agriculture, Communities and Rural Environment Initiative (ACRE) and other relevant issues. The purpose of this program is to educate newly elected public officials on local agricultural practices and operations and to familiarize them with the local farm community.

RECOMMENDATIONS SPECIFIC TO BERKS COUNTY

1. **Remove barriers to new and expanding agricultural operations by reviewing township zoning ordinances and other policies concerning agriculture to ensure legality and appropriateness.**

Pennsylvania's ACRE program works to resolve some of the issues that come into being when a non-farm community is exposed to large-scale agricultural operations. Act 38 of 2005 sets up a process for farmers to request the Pennsylvania Attorney General review ordinances that the farmer believes to be illegal and restricting agriculture. A review of all township ordinances and policies by Berks County officials would rapidly expedite this process to ensure that these

policies are not adversely affecting county agriculture and would identify any problematic policies that need modification.

2. Fully Fund the Agricultural Land Preservation Program.

Even with Berks County's successful farmland preservation program, farmers there report a scarcity of productive agricultural land for expanding their operations. Agricultural stakeholders interviewed through this study process feel this program is absolutely essential to sustain agricultural viability and funding for the program should continue. :

a. **Fund the $30 million bond** program officials say is at the center of discussions. This amount would preserve approximately 30,000 acres of farmland and bring the total to 70,000 acres under easement—about one-third of the county's total farmland.
b. **Conduct a comprehensive analysis to identify new funding sources for the program.** In 2004 there were at least 21 different funding sources used by farmland preservation programs around the country to fund local- and state-level farmland preservation. Some of the more innovative measures include mitigation fees, cigarette tax, cell phone tax, transient lodging tax, gaming revenues, and repayment of property tax credits. Additional funding sources that have been proposed include restaurant tax, rental car fees, luxury home tax, and airport parking fees.

3. Improve agricultural zoning laws and practices.

Farmers in Berks County report that there is considerable variability in agricultural zoning from township to township. In some cases, farmers who have enrolled in the county agricultural land preservation program cannot expand their farm business due to limiting zoning ordinances. There is also a concern that funding for the county program should only be invested in farms that are in an agricultural zone to ensure agriculture remains productive in the local area.

a. **Create a countywide process to standardize agricultural zoning** so townships have the tools they need to implement it effectively. Examples of effective agricultural zoning from other counties could be used to help create standards for Berks (see Appendix D).
b. **Create an "Agricultural Planner" position to work on farmland issues.** This position would help develop a model agricultural zoning ordinance and assist townships to implement it. The agricultural planner would also work with farmers to ensure that planning and zoning efforts in the townships are working in synch with agriculture. The Montgomery County, Maryland, Agricultural Services Division staff work on a broad range of agricultural issues that include representing the farm community on planning issues.
c. **Fund the Berks County Agricultural Zoning Incentive Program (AZIP**), which provides incentives to townships to implement agricultural zoning. Funding this program would help townships adopt agricultural zoning by paying for the associated costs.

4. Engage the current initiative of the "old" Farm-City Council in creating new forms of leadership to advocate for farming and agricultural interests.

New forms of leadership are needed to represent agricultural interests. All sectors of the agricultural industry, including suppliers and processors, should be included in this effort, which

will work to cultivate leadership among the agricultural community. Considerations should be given to which of the following options would work in Berks County:

a. **Create a new organizational structure that understands agricultural issues.** This is needed to represent agricultural interests that would also serve to educate government officials and the business community.
b. **Create an office for a full-time County Agricultural Commissioner.** The County Agricultural commissioner would serve as the liaison between the agricultural industry and the county and municipal governments and in general would be a spokesperson for and advocate for the agricultural community. Most counties in California employ full time agricultural commissioners.
c. **Create an Agricultural Chamber of Commerce to promote agricultural interests.** County chambers of commerce are effective in promoting local businesses and helping them stay viable. A chamber focused solely on agriculture would promote agricultural products and services, provide business assistance to farmers and represent agriculture among the broader business community.
d. **Restructure and evaluate the effectiveness of existing agricultural organizations**. Demographics, lifestyles and governmental processes have changed significantly over time. Ways of affecting these processes and reaching consumers must continually evolve in order to be effective. Agricultural groups may need to evaluate their current operations and determine how they can work most effectively to represent their constituency.
e. **Encourage townships or regional groups of towns to form Agricultural Commissions or Advisory Boards.** These boards would be comprised of farmers and agricultural professionals from the areas served. The boards' function would be to advise townships on agricultural issues and how new policies, regulations, and ordinances will affect agriculture. Legislation should be developed that defines the role of the boards and their make-up.

5. Investigate political action committee (PAC) formation for agricultural interests.

Farm advocates should consider forming a PAC to ensure that future government leaders elected to office are the ones supportive of agriculture.

6. Develop and implement a strategy for manure management.

Animal agriculture is vital to the Berks County farm economy. However, livestock and poultry farmers are finding it difficult to deal with new and changing regulations on manure management. Solutions must be found that are economically viable and do not pollute local waterways or groundwater. Examples include:

a. **Methane digesters for small-scale power generation.** Blue Spruce Farm in Bridgeport, Vermont, is expected to produce 1.7 million kilowatt hours of energy per year from cow manure. This energy, produced from 1,500 cows, is enough to supply 300 homes with electricity for one year.
b. **Converting the manure to a compost product for gardening and landscaping.** Perdue's Agricycle facility in Laurel, Delaware, converts 60,000 to 80,000 tons of chicken manure annually to a pelletized form that is used by small-scale farmers, gardeners and landscapers.

7. Explore Alternative Livestock Operations

Grass-based dairy farming was discussed as a viable alternative in Berks County. This practice eliminates the large quantities of manure that most large-scale dairies accumulate and therefore is not as much of a concern from a nutrient management standpoint. Also, allowing cows to roam freely may reduce odors and could be seen as more suburban friendly. Equine industries also were seen as an area for potential expansion. An industry representative suggested that horse breeding has become more profitable in Pennsylvania and that the farm size and infrastructure in Berks is perfect to accommodate more such operations.

RECOMMENDATIONS SPECIFIC TO SCHUYLKILL COUNTY

1. Create an Agricultural Educator position.

As the general population increases, the number of active farmers and those familiar with agriculture is decreasing. Fewer and fewer people are familiar with agriculture today, and the Agricultural Awareness Foundation of Pennsylvania suggests that teachers and schoolchildren are three generations removed from working farms. In addition, new residents who are unfamiliar with production agriculture have become vocal in complaining about the routine agricultural operations such as spraying, engine sounds, and manure spreading. The Agricultural Educator would work in schools and with civic organizations and municipalities to provide general education about agriculture throughout the county.

The Agricultural Educator position would also:

a. Coordinate efforts and act as liaison with all agricultural oriented organizations, commissioners, municipalities, conservancy, watershed groups etc.;
b. Be a lead for agriculture oriented media releases;
c. Organize an annual county-wide farm tour and or special agricultural events;
d. Promote farm markets and local agricultural products;
e. Work on getting agricultural products in school lunch programs.

2. Fund the Schuylkill County Agricultural Land Preservation Program and analyze new revenue sources that can be used by the program.

As new residential development is occurring on farm soils in Schuylkill County, farmers report a scarcity of productive agricultural land for expanding their operations. Agricultural stakeholders interviewed through this study process feel this program is absolutely essential to sustain agricultural viability and that funding for the program should continue. Funding for the program is strongly needed to preserve agriculture in:

a. **Consideration should be given to increasing the annual funding for the program.** The agricultural community feels now is the time to be proactive in preserving farmland in Schuylkill County before it is developed and lost forever. One consideration could be bonding; Berks County has protected nearly 40,000 farmland acres primarily through a bond issue.

b. **A comprehensive analysis should be conducted to identify new funding sources** for the program. In 2004 there were at least 21 different funding sources used by farmland preservation programs around the country to fund local- and state-level farmland preservation. Some of the more innovative measures include mitigation fees, cigarette tax, cell phone tax, transient lodging tax, gaming revenues, repayment of property tax credits. Additional funding sources that have been proposed include restaurant tax, rental car fees, luxury home tax, and airport parking fees.

3. County and municipalities adopt agricultural zoning as outlined in the comprehensive plan.

As indicated above, the agricultural community feels the time to act is now if Schuylkill County is to retain its agricultural industry long-term. Efforts to increase township adoption of agricultural zoning would help ensure a large and affordable land base remains available for agriculture.

4. Increase the capacity of the County Planning Staff by adding an Agricultural Land Planner to implement agricultural zoning and work with agricultural land issues.

Agriculture is one of the largest industries in Schuylkill County. The agricultural industry is dependent on high quality farmland in order to be economically viable. With increased conversion of farmland to developed uses, planning efforts must be in place to help preserve the county's most productive farmland and direct development to appropriate areas**.** This position would help develop a model agricultural zoning ordinance and assist townships to implement it. The agricultural planner would also work with farmers to ensure that planning and zoning efforts in the townships are working in synch with agriculture. Montgomery County Maryland's Agricultural Services Division staff work on a broad range of agricultural issues that include representing the farm community on planning issues.

5. Develop an agricultural zoning incentive program similar to Berks County.

Berks County's Agricultural Zoning Incentive Program (AZIP) program provides an incentive to townships wishing to implement agricultural zoning. Funding this program would facilitate townships incorporating agricultural zoning by paying for the associated costs.

6. Develop new leadership structures for the agricultural community.

New forms of leadership are needed to represent agricultural interests. All sectors of the agricultural industry including suppliers and processors should be included in this effort, which will work to cultivate leadership among the agricultural community. Considerations should be given to which of the following options would work in Schuylkill County:

a. **Create a new organizational structure that understands agricultural issues.** This is needed to represent agricultural interests that would also serve to educate government officials and the business community.
b. **Create an office for a full-time County Agricultural Commissioner.** The County agricultural commissioner would serve as the liaison between the agricultural industry

and the county and municipal governments and, in general, would be a spokesperson for and advocate for the agricultural community. Most counties in California employ full-time agricultural commissioners.

c. **Create an Agricultural Chamber of Commerce to promote agricultural interests.** County chambers of commerce are effective in promoting local businesses and helping them stay viable. A chamber focused solely on agriculture would promote agricultural products and services, provide business assistance to farmers and represent agriculture among the broader business community.
d. **Form Agricultural Commissions or Advisory Boards on the county, regional or township level(s).** These boards would be comprised of farmers and agricultural professionals from the areas served. The boards' function would be to advise townships and/or the county on agricultural issues and how new policies, regulations, and ordinances will impact agriculture. Legislation should be developed that defines the role of the boards and their make-up.

APPENDIX A

INVENTORY OF EXISTING TOOLS AND RESOURCES TO MAINTAIN AGRICULTURAL VIABILITY IN BERKS AND SCHUYLKILL COUNTIES

The following is a compilation of local, state and federal policies and programs in place that work toward supporting and maintaining the viability of the agriculture industry in Berks and Schuylkill Counties. The first section describes programs designed to protect or assist farmers; those in the second section are designed to preserve agricultural land; federal programs are listed in the third section.

I. FARMER-SPECIFIC PROGRAMS

Agriculture, Communities and Rural Environment (ACRE) Initiative
The ACRE program seeks to balance the business interests of production agriculture with the community and environmental interests of local citizens and elected officials. ACRE works to resolve some of the issues that come into being when a non-farm community is exposed to large-scale agricultural operations. Act 38 of 2005 sets up a process for farmers to request that the Pennsylvania Attorney General review ordinances that the farmer believes to be illegal and restricting agriculture.
Contact: PDA, Mike Pechart, 717-705-2122, **http://www.acre.state.pa.us/acre/site/default.asp**

Agricultural Security Areas (ASAs)
Pennsylvania's Act 43 enables municipalities to set up ASAs in regions where agriculture is the prevailing land use. ASAs prohibit the local government from imposing ordinances that limit farm practices and structures, and from deeming routine farm activities as "nuisance." In order to be considered for the state or county Purchase of Agricultural Conservation Easements program, farmland must be enrolled in an ASA of at least 500 acres.
Contact: Berks County ALPB

Penn State Cooperative Extension—Berks County, Cooperative Extension Education Programs – provides agricultural related education to farmers. Also offers plans, production practices and evaluation to all areas of agricultural production. These can include; labor and business development, building plans and evaluation, whole farm planning and beginning and leaving production agriculture.
Award range: technical assistance.

Penn State Cooperative Extension—Schuylkill County, Cooperative Extension Education Programs – provides educational programs, publications and events around agricultural issues. Extension agents are also available to answer questions. Programs include 4H, Agriculture, Families and Children, Horticulture and Gardening, Community Development, Natural resources and Food and Nutrition.
Contact: Cooperative Extension—Schuylkill County, 1202 Ag Center Drive, Pottsville, PA, 570-622-4481

Pennsylvania Environmental Agricultural Conservation Certification of Excellence (PEACCE)
The PEACCE program was developed to advance environmental stewardship principles among livestock producers and to recognize those producers who meet the program requirements. PEACCE is a partnership program sponsored by the following agencies: Pennsylvania Department of Agriculture; Pennsylvania State Conservation Commission; Pennsylvania Association of Conservation Districts; PennAg Industries, Inc.; Pennsylvania Farm Bureau; USDA-NRCS of Pennsylvania; Pennsylvania Environmental Council; Pennsylvania Department of Environmental Protection; and The Pennsylvania State University. The program is divided into three levels: Environmental Awareness Course, On-Farm Assessment and Environmental Review, and County Conservation District Evaluation Checklist. Producers completing all three levels are eligible for certification and must participate in a County Conservation District Review every three years to maintain certification.
Contact: PDA

Pennsylvania Department of Agriculture (PDA) Programs
PDA administers the following programs:

- **Agricultural Product Promotion Matching Grant Program –** Nonprofit agricultural marketing and product promotion organizations are eligible to receive matching funds to promote and increase consumer awareness of Pennsylvania agricultural products. The minimum amount awarded for a matching grant is $1,000.
- **Agriculture and Rural Youth Grant –** This program offers eligible organizations grants of up to $10,000 for projects aimed at increasing the awareness of rural and agricultural issues among Pennsylvania youth.
- **Small Business First –** Administered through regional economic development corporations, this program provides low-interest loans to small businesses (100 employees or fewer) for land, building or machinery acquisitions or upgrades, working capital and environmental compliance. Those involved in agricultural processing or production agriculture are eligible for loans up to $200,000.
- **Pennsylvania Preferred Program – "**PA Preferred" encourages consumers to buy agricultural products that were grown and processed in Pennsylvania, and provides quality assurance that these products have met stringent food safety standards.
- **Machinery and Equipment Loan Fund (MELF)** – Agriculture producers and processors are eligible for low-interest loans to upgrade or replace equipment of up to $5 million.
- **Simply Delicious Campaign –** This program, with the theme "Simply Delicious…Simply Nutritious" raises awareness on the quality of Pennsylvania's fresh produce through marketing and public relations and helps increase the buying and selling of these products throughout the state.
- **First Industries Fund** – Offers grants of up to $250,000 and loans and loan guarantees of up to $200,000 to agriculture and tourism operations. All agricultural businesses are eligible. Uses for loans include land, building and machinery purchase and working capital. Grant funding is to be used for planning and redevelopment.
- **Next Generation Farmer Loan Program (NGFLP)**
  NGFLP works with lenders to extend low-interest loans to beginning farmers who have no prior ownership of property valued in excess of $125,000 and whose net worth does

not exceed $200,000. Lenders are exempt from all income taxes they would earn from the loan, so can therefore offer them at lower rates.

Contact: Pennsylvania Department of Agriculture, 2301 North Cameron St., Harrisburg, PA 17110, 717-787-4737. **www.agriculture.state.pa.us**.

Pennsylvania Preferential Assessment of Farmland and Forest Land (Clean and Green)

Pennsylvania's agricultural use assessment law (Act 319) allows farmland to be assessed at its current agricultural use value but does not include farm buildings that are assessed at fair market value. To enroll in this program, farmland must be a minimum of 10 contiguous acres and have produced an agricultural commodity for the three previous years. Eligible forestland must be capable of producing 25 cubic feet of timber per acre annually. If land is taken out of agricultural use, a minimum of seven years plus 6 percent interest must be paid. This program is administered through the Berks County Assessment Office.

Contact: Berks County Board of Assessment, Brenda Shaw, Berks County Services Center – 3rd Floor, 633 Court St., Reading, PA 19601, 610-478-6262

Schuylkill County Tax Assessment Office, Schuylkill County Courthouse Basement, 401 North Second St., Pottsville, PA 17901, 570-628-1025

Pennsylvania Right-to-Farm Law

The Pennsylvania Right-to-Farm (Act 133) law protects farmers from nuisance complaints provided the farm operation has been in existence for one year, follows accepted agricultural practices, is unchanged since the start of operation and is not in violation of governmental regulations.

Contact: PSU Cooperative Extension

II. AGRICULTURAL LAND SPECIFIC PROGRAMS

Agricultural Zoning

The Pennsylvania Municipalities Planning Code Act 247 authorizes municipalities to enact agricultural zoning ordinances to protect agricultural land and overall agricultural viability. Most agricultural zoning limits non-agricultural uses by specifying how many building units can occur on a given acreage. As of August 2005 in Berks County, 23 townships employ effective agricultural zoning on more than 154,911 acres.

Contact: Berks County Planning Commission, Glenn Knoblauch, Executive Director, Berks County Services Center, 633 Court St., 14th Floor, Reading, PA19601, 610-478-6300 or Clyde Myers, PSU Cooperative Extension—Berks County

Agricultural Zoning Incentive Program (AZIP)

AZIP was created to help townships in Berks County adopt or update agriculturally protective zoning ordinances where appropriate. As the Berks County Comprehensive Plan encourages municipalities to enact such measures, the AZIP program provides funding for a township to cover all costs of amending or revising its existing zoning ordinance in order to adopt agriculturally protective zoning. Standards for this program are detailed in the Berks County Planning Commission's "Agricultural Zoning Incentive Program (AZIP)" document.

Contact: Penn State Cooperative Extension—Berks County, Clyde Myers, Extension Educator, Berks County Agricultural Center, PO Box 520, Leesport, PA 19533, 610-378-1327.

Berks County Agricultural Land Preservation Program
This program acquires conservation easements (or development rights) from landowners and permanently preserves the land for agricultural use. Interested landowners may apply for consideration, and farms are ranked each year according to program specifications. Easements are purchased from top-ranked farms according to funding availability. Currently, this program has protected 370 farms and 42,000 acres of farmland.
Contact: Berks County Agricultural Land Preservation Board (ALPB), Tami Hildebrand, Executive Director, Berks County Agricultural Center, PO Box 520, Leesport, PA 19533, 610-378-1844

Schuylkill County Agricultural Land Preservation Program
This program acquires conservation easements (or development rights) from landowners and permanently preserves the land for agricultural use. Interested landowners may apply for consideration, and farms are ranked each year according to program specifications. Easements are purchased from top-ranked farms according to funding availability. As of June 2005, this program has protected76 farms on 8,863 acres of farmland.
Contact: Jeff Stutzman, Schuylkill Conservation District, 1206 Ag Center Drive, Pottsville, PA 17901, 570-622-4124

Berks County Conservancy
Established as a non-profit organization in 1974, the BCC works to protect Berks County agricultural lands and open space, water quality as well as scenic and historic resources. BCC staff work with landowners considering donating a conservation easement and permanently protecting their property and accruing tax benefits.
Contact: Kimberly Murphy, Executive Director, 25 N. 11th Street, Reading, PA 19601, 610-372-2917.

Berks County Municipal Land Protection Program
This program provides matching funds to Berks County municipalities interested in purchasing conservation easements on agricultural or natural resource lands. Eligible townships may qualify for up to $500 per acre on agricultural lands and $300 per acre on natural resource lands for easement purchase.
Contact: Berks County ALPB or the Berks County Planning Commission, Glenn Knoblauch, Executive Director, Berks County Services Center, 633 Court St., 14th Floor, Reading, PA19601, 610-478-6300.

Pennsylvania Farmland Protection Program
Act 149 of 1988 became effective in February 1989, creating the Farmland Protection Program. This program is currently leading the nation in acres protected with over 304,151 acres in 2,651 conservation easements as of June 2005.
Contact: Berks County ALPB or Schuylkill County ALPP

III. FEDERAL PROGRAMS

USDA Federal Grant Programs (available at http://.12.46.245.173/cfda/cfda.html)

Contact: Berks County Service Center, **J**osephine Bodock, 1238 County Welfare Rd., PO Box 520, Leesport, PA 19533-0520, 610-478-7158
USDA Service Center, Pottsville Field Office, 1104 Ag Center Drive, Pottsville, PA 17901, 570-622-1312

Farm Service Agency (FSA)

- **Bioenergy Program** – authorized in the 2002 Farm Bill, this new program provides bioenergy producers with payments based on production from eligible commodities.
  Award range: up to $375,000 per producer/year

USDA Forest Service

- **Forest Land Enhancement Program (FLEP)** – cost-share program provides funding for forestry activity including plan preparation, timber management and wildlife habitat.
  Award range: $250 to $5,000 annually, 75% cost share (no allocation in 2005)

- **Technology Marketing Unit** – helps small forest products businesses turn small diameter trees into marketable products and biomass energy.
  Award range: $5,000 to $300,000/grant

- **Rural Development, Forestry, and Communities** – helps rural areas assess forest resource opportunities, increase local economic potential, and diversify the local economic base.
  Award range: $1,000 to $50,000/grant

Foreign Agricultural Service (FAS)

- **Emerging Markets Program** – seeks to promote, enhance and expand the export of U.S. agricultural products to emerging markets overseas.
  Award range: $5,000 plus

USDA Natural Resources Conservation Service (NRCS) - http://www.nrcs.usda.gov/

- **Agricultural Management Assistance (AMA)** – provides cost-sharing payments to farmers involved in converting to organic farming, irrigation, pest management, windbreaks and grazing.
  Award range: up to $50,000 annually, 75% cost-share

- **Farm and Ranch Lands Protection Program (FRPP)** – provides funding to qualified entities (Pennsylvania state farmland protection program) to acquire conservation easements from landowners.
  Award range: no more than 50 percent of the appraised fair market value of the property

- **Conservation Reserve Program (CRP)** – encourages farmers to convert highly erodible cropland or other environmentally sensitive acreage to vegetative cover, such as tame or native grasses, wildlife plantings, trees, filter strips or riparian buffers. Farmers receive an annual payment for the term of the multi-year contract.
  Award range: up to $50,000 annually

- **Conservation Reserve Enhancement Program (CREP)** – encourages farmers to install buffers on waterways to reduce erosion and water pollution and to benefit wildlife. Program available in counties in Chesapeake Bay Watershed. Farmers receive an annual payment for the term of the multi-year contract.

- **Wetlands Reserve Program (WRP)** – purchases easements and provides cost-sharing to producers who agree to restore wetlands on agricultural land.
  Award range: An amount equal to or less than the agricultural value of the property

- **Environmental Quality Incentives Program (EQIP)** – promotes agricultural production and environmental quality as compatible national goals. Farmers may receive financial and technical help to install or implement structural and management practices on eligible land: 75 percent cost sharing or 90 percent if producer is a limited-resource or beginning farmer or rancher. Includes Water Conservation Program, which provides cost-sharing incentives and assistance for efforts to conserve ground and surface water Award range: up to $450,000

- **Conservation Security Program (CSP)** – helps owners and operators of agricultural lands maintain conservation practices and install additional practices. Producers can participate at one of three tiers—the higher the tier, the greater the conservation effort and the higher the payment.
  Award range: $20,000 to $45,000 annually

- **Wildlife Habitat Incentives Program (WHIP)** – provides technical and cost-share assistance payments to help establish and improve fish and wildlife habitat.
  Award range: up to 15 percent of installation cost

- **Grassland Reserve Program (GRP)** – provides term or permanent easements on grasslands that can be grazed or hayed.

<u>Rural Business-Cooperative Service</u>

- **Rural Cooperative Development Grants** – helps establish new cooperatives or improve existing cooperatives to improve rural economic conditions.
  Award range: $65,000 to $200,000

- **Rural Business Enterprise Grants** – facilitates development of small private business, industry and other related employment to improve rural economies. Television

demonstration grant funds may be used for television programming that provides information on agriculture and other important issues to farmers and rural residents.
Award range: $2,000 to $500,000

- **Value-Added Producer Grants** – funds planning activities and provides working capital for marketing value-added agricultural products and for farm-based renewable energy.
  Award range: up to $500,000

- **Rural Business Opportunity Grants** – funds the promotion of sustainable economic development in rural communities with exceptional needs. This includes economic planning, technical assistance for rural businesses or training for rural entrepreneurs or economic development officials.
  Award range: $30,000 to $100,000

Cooperative State Research, Education, and Extension Service (CREES)

- **Integrated Programs** – supports the facilitation and expansion of breakthroughs in food and agricultural sciences.
  Award range: $20,000 to $2,080,000

- **Initiative for Future Agriculture and Food Systems –** funds research, education and Extension grants to address critical and emerging agriculture issues.
  Award range: $65,000 to $4,375,000

- **Small Business Innovation Research** – stimulates technological innovation among the small business sector, promotes technology transfer and encourages participation by women-owned and socially disadvantaged small businesses in technological innovation.
  Award range: $46,000 to $300,000 per grant

- **Grants for Agricultural Research** – funds research areas including plants, animals, natural resources, environment, nutrition, food quality and health, markets, trade and rural development, and new products and processes.
  Award range: $4,000 to $491,100

- **Community Food Projects** – supports community food projects that meet the needs of low-income people, assists communities in providing for their own food needs and promotes comprehensive solutions to local food, farm and nutrition issues.
  Award range: $10,000 to $250,000

- **Sustainable Agriculture Research and Education (SARE)** – offers numerous grants to assist producers in adopting sustainable agricultural practices and to promote partnerships and information exchange among farmers, agribusinesses, nonprofit organizations, and public and private research and extension institutions.
  Award range: $8,000 to $1,752,250

- **Cooperative Extension Education Programs** – provides agricultural related education to farmers and consumers. Also offers evaluation and plans from labor and business development to all areas of agricultural production.
  Award range: technical assistance.

APPENDIX B

NEW AND EMERGING MARKET OPPORTUNITIES

As the range of uses of agricultural corps continues to expand and as food consumption trends change, farmers have the opportunity to consider diversifying their operations and growing different crops. The information contained in this appendix provides a brief overview of some of the potential new opportunities in growing food and fiber products.

By no means should this information be considered a definitive statement on what direction Berks and Schuylkill County farmers should move in order to establish a more diversified operation. Rather, the intent of this chapter is to give local leaders and the agricultural community ideas on what markets or selling venues could boost profitability of these industries in Berks and Schuylkill Counties. Feasibility research would be needed to determine the suitability of these options.

Alternative Field Crops

According to USDA's Sustainable Agriculture Research and Education Program (SARE), the crops discussed below can be used in an existing rotation of traditional commodity crops and may offer farmers higher value without significant risk.

- Alternative Oilseeds
  Market opportunities for oilseeds are expanding. Most oilseeds are used for cooking oil or in processed foods, but a number of non-food uses are gaining ground. Alternative oilseeds, such as sunflowers and canola, are higher in oil content than soybeans. Oilseeds also have industrial uses and many have been domesticated from wild plants in recent decades. These include meadowfoam, jojoba, vernonia, lesquerella and crambe. More recognizable oilseed crops, such as flax and sesame, offer promising options for an expanding U.S. market. In 1997 organic oilseeds were grown on 31,400 acres in 18 states. Certified organic sunflowers topped the list at nearly 11,000 acres, and flax was grown on over 8,000 acres.
- Alternative Legumes
  Legumes are nitrogen fixing and play an important role in improving soil fertility when used in a crop rotation by reducing or eliminating the need for nitrogen fertilizer. Soybeans, cowpeas, dry edible beans and large-seeded legumes are the most economically significant of these. Chickpeas (garbanzo beans), lentils, dry peas and mung beans are also of some economic significance. Other legumes include adzuki beans, sweet white lupines and guar. Legumes are higher in protein than other crops.
- Alternative Cereal Grains and Pseudocereals
  New market opportunities for alternative cereal grains including pearl, foxtail and proso millet are emerging for both human and livestock consumption. Pseudocereals, such as amaranth, quinoa and buckwheat are also seeing an increased interest. Pseudocereals, which derive their name from the fact that they are broad leaf plants rather than grasses, are typically ground into flour. The export market to Japan supports buckwheat production, and amaranth and quinoa have seen increased interest due to their high nutritional value.

Aquaculture Products
Domestic demand for aquaculture products shows robust growth. The value of the industry has increased from $45 million in 1974 to over $978 million in 1998, with a 10 percent annual growth rate (Harvey 2003). In the first six months of 2003, salmon imports were more than double what they were in 1998. Tilapia imports increased by 230 percent during that time period, and shrimp imports (a mix of farmed and wild-caught) grew 41 percent in the last five years.

Overall U.S. production of aquaculture products is also expected to increase. Catfish are the largest segment of the domestic aquaculture industry and can be on a mostly grain-based diet. U.S. aquaculture producers are at a competitive advantage for fresh aquaculture products. Demand for fresh fish and shrimp is expected to increase, but more growth is forecast for frozen and processed products. Foreign competition for these products is intense as they can be grown—or caught—and shipped to the U.S. at less expense in China, Taiwan, Honduras, Ecuador, Vietnam and other countries.

Three factors are expected to increase demand for aquaculture products in the near future. First, the U.S. economy is expected to slowly strengthen. This should increase away-from-home food expenditures and discretionary income available for high-value prepared food products. Second, the food sector is expected to grow as demand for away from home and fully prepared meals increases. And finally, the dollar has remained strong relative to a number of foreign currencies.

Biotechnology Crops
There has been considerable interest expressed by the farming and economic development communities in biotechnology crops. While there are considerable, well-documented economic benefits, these are checked by environmental and quality control issues.

According to the Pesticide Action Network, a number of companies including Dow, DuPont, Monsanto, and ProdiGene have been developing genetically engineered crops to produce industrial chemicals, food and feed products, and pharmaceuticals.

A “pharma crop” refers to a crop grown to produce a pharmaceutical. The growing of pharma crops holds significant potential in producing medicines. However, this practice is not without its own set of issues—the most significant being how to contain the plants being grown for pharmaceutical purposes. Farmers growing pharma crops are currently required by USDA to have a one-mile buffer around those crops (Hoskins 2004). Some pharma crops are more low risk than others; one variety of altered corn contains and enzyme that helps cystic fibrosis patients digest food. The protein creates no ill effect if consumed by humans as it occurs naturally in the stomach. Yet, environmental and consumer groups have threatened to sue USDA unless it temporarily halts planting of biotech crops on the grounds that the USDA is risking contamination of the food supply and the environment with chemicals and drugs produced by pharma crops (Fabi 2003).

Medicines that can be grown from genetically modified plants include blood clotting agents, blood thinners, blood proteins, industrial enzymes, animal vaccines, antibodies and others. Nebraska and Hawaii have seen open air testing of these plants. The issue of contamination has prevented more widespread acceptance of these crops. In a 2002 study, the National Academy of

Sciences reported "the environmental impacts of biopharm agriculture cannot be predicted, and that the novel compounds being supplied by these plants may contaminate human and animal food supplies." Several examples confirm this including 155 acres of corn and 500,000 bushels of Nebraska soybeans that had to be destroyed due to contamination. .

Biotech crops have been rapidly adopted in the U.S. since their commercial introduction in 1996. Varieties of herbicide-tolerant soybeans took up 81 percent of total soybean acreage in 2003, up from only 7 percent in 1996 (Fernandez-Cornejo 2002). Herbicide-tolerant cotton jumped from 10 percent in 1997 to 56 percent in 2001. However, herbicide-tolerant corn adoption has been slower and does not exceed 10 percent. Biotech crops offer the advantages of higher yields and lower pest control costs. The three most prevalent biotech crops are *Bacillum thuringiensis* (Bt) cotton, herbicide tolerant cotton, and herbicide tolerant soybeans. In 1997 the estimated market benefits of each of these crops ranged from $213 million to $308 million (Price 2003).

Direct Marketing and Local Foods

With large urban populations nearby, and a significant potential for agritourism, Berks and Schuylkill County farmers may be able to develop and expand direct marketing opportunities to consumers. Direct marketing refers to a farmer or producer selling directly to consumers in the form of farmers' markets and stands, pick-your-own farms, Community Supported Agriculture operations, and catalog sales. Between 1987 and 1997 the number of farms participating in direct marketing in the U.S. increased from 86,432 to 93,140 or 7.8 percent (Payne 2002). More significant is that gross sales of these farms increased from $404,056,000 in 1987 to $550,947,000 in 1997—an increase of 36 percent.

- During the same time period the number of **farmers' markets** in the U.S. increased from 1,755 to 2,863, or 63 percent. Customers on average spent $17.30 per week at farmers' markets. Annual sales were $306 per customer and $11,773 per vendor. Thirty one percent of farmers selling at farmers' markets use them as their only method for marketing their products, and 79 percent have less than $10,000 in annual sales. Data suggest that while farmers' markets are an important income generator for small- to medium- size farms, they are typically used to supplement other income streams. (Payne, 2002)
- There are approximately 1,000 **Community Supported Agriculture** (CSA) operations in the United States (Lass 1999). The 1999 median income of CSAs was $15,000 and the mean $30,425. Fifty percent of all CSA operations had incomes between $7,000 and $30,960. CSAs employ more women as the primary farmer (39 percent compared to 8.6 percent of all farmers in the 1997 Census) and younger farmers (43.7 years—10 years younger than the national average).

Local and community food systems have become important in both generating additional revenues for local farmers and reconnecting local consumers with where their food comes from. There is a considerable opportunity for local farmers to sell food as a small-scale enterprise to provide a supplemental income.

A 1994 survey of consumers in the Northeast states (Md., Del., W.Va., Pa., N.J., N.Y., Mass., Conn., R.I., Vt., N.H., Maine) suggests that 80 percent of respondents would "be willing to pay more for produce that local farmers grew if doing so would help them stay in business" (Wilkins

1994). Ninety one percent would "buy more local/state/regional produce if it was labeled as such." Nearly half (49.7 percent) of those polled "rarely or never noticed" where the produce they buy in stores comes from, yet 85 percent agreed "consumers should have more locally-grown fruits and vegetables available to them." Ninety-seven percent agreed "buying local produce is an effective way to keep farms viable in the Northeast."

Food Consumption Trends

As food consumption changes on the national level, new market opportunities for agricultural products are continuously being created.

Americans now consume more food, bigger portions, more snacks and more calories than they did in 1970. As of 1997, Americans were consuming 50 percent more grain products, 25 percent more fruits and vegetables, eating leaner meats, and drinking lower fat milk than they did in 1970 (Putnam 1999). Table 1 provides further details on consumption changes between 1970 and 1997.

Table 1. Changes in U.S. per capita food consumption, 1970-1997

Food Item	% Change 1970 to 1997
Cheese	146
Carbonated soft drinks	118
Poultry	92
Flour and cereal products	48
Caloric sweeteners	26
Fats and oils	25
Fruits and vegetables	24
Fish	24
Alcoholic beverages	17
Red meat	-16
Eggs	-23
Beverage milk	-23
Coffee	-32

Source: Judith Jones Putnam and Jane E. Allshouse. *Food Consumption, Prices and Expenditures, 1970-97*. Statistical Bulletin No. 965. USDA: ERS, Food and Rural Economics Division, April 1999.

Americans are also spending less of their income on food. In 1997, only 10.7 percent of disposable income was spent on food, compared to 13.8 percent in 1970. However, U.S. consumers are spending more on higher-value, processed foods—in 1997, 45 percent of total food spending was on away-from-home meals and snacks compared to only 34 percent in 1970.

A number of factors have changed food consumption patterns since 1970. New and more convenient products and away-from-home meals have catered to busier lifestyles. Social and demographic factors such as an increase in ethnic diversity, more one-parent households, an aging population, more two-income households and smaller households have all had an impact

on food consumption. The continued research and increasing amount of information available to the consumer about the relationship between diet and health, an increased interest in nutrition, more nutrition labels and federal government guidelines on nutrition have also shaped food consumption and marketing trends. Other factors playing a role include more imported foods, increased disposable income, relative price increases in foods, more food assistance to the poor and food enrichment policies.

Nursery and Greenhouse Products

The nursery and greenhouse industry has expanded considerably in Berks and Schuylkill Counties and with national trends indicating further growth, the industry in this region may very well follow suit. U.S. sales of floriculture and nursery crops jumped 23 percent, from $102 to $132 per household between 1992 and 2003 (Jerardo 2003). This increase is largely a reflection of increased demand and price increase over the past decade for bedding and garden plants, potted flowering plants, and foliage plants for patio and indoor use. These consumption trends follow rapid expansion of the U.S. economy as well as increases in home construction and ownership from 1992 to 2000. The domestic wholesale price index of potted flowering plants and bedding and garden plants also increased significantly during this time period. Potted flowering plants increased 18 percent while bedding and garden plants rose by 15 percent between 1989 and 2002. Cut flower prices remained flat, causing growers to shift production towards bedding and garden annuals and perennials. Potted plants are protected from imports while foreign competition in the cut flower market is significant.

Organic Products

Increasing consumer demand has created new markets for agricultural producers. Pennsylvania is among the states leading the nation in growing agricultural products (Table 2).

	Acreage or Number of Animals	Rank Among other States
Overall Acreage	20,984 acres	20th
Vegetables	2,585	4th
Beef cows	454	11th
Milk cows	4,398	4th
Overall poultry	205,379	3rd
Layer hens	148,079	2nd
Broilers	56,100	5th

Table 2. Pennsylvania Certified Organic Production, 2000, 2001, 2002.
Source: Economic Research Service, USDA, 2003.

Some key national-level findings include (Greene 2003):

- Annual growth in retail sales of organic food products has equaled or exceeded 20 percent since 1990;
- Acreage of certified organic cropland doubled in the U.S. between 1992 and 1997 (Table 2);
- While produce is the top selling organic category, organic dairy was the fastest growing segment in the 1990s with a sales increase of over 500 percent between 1994 and 1999;
- Organic products are available at 20,000 natural food stores and in 73 percent of conventional grocery stores nationwide;

- Over 800 new organic products were introduced in the first half of 2000;
- Organic sales have increased from approximately $1 billion in 1990 to $3.3 billion in 1996 to $7.8 billion in 2000;

Table 2. U.S. certified organic acreage, livestock numbers and farm operations, 1992–2001

Item	1992	2001	Change 1992-2001	% Change 1992-2001
U.S. certified farmland (acres)				
Cropland	403,400	1,304,766	901,366	223%
Pastureland	532,050	1,039,505	507,455	95%
Total	935,450	2,343,924	1,408,474	151%
U.S. certified animals (numbers)				
LIVESTOCK				
Beef cows	6,796	15,197	8,401	124%
Milk cows	2,265	48,677	46,412	2,049%
Hogs & pigs	1,365	3,135	1,770	130%
Sheep/lambs	1,221	4,207	2,986	245%
Total livestock	11,647	71,216	59,569	511%
POULTRY				
Layer hens	43,981	1,611,662	1,567,681	3,564%
Broilers	17,382	3,286,456	3,269,074	18,807%
Turkeys	No data	98,653	Unknown	
Other/unclassified	No data	17,244	Unknown	
Total poultry	61,363	5,014,015	4,952,652	8,071%
Total certified operations	3,587	6,949	3,362	94%

Source: Catherine Greene and Amy Kremen, U.S. Organic Farming in 2000-2001: Adoption of Certified Systems. USDA: ERS, Resource Economics Division, Agriculture Information Bulletin No. 780.

Recent studies on the profitability of organic farming systems have found the following:

- Organic price premiums give organic farming systems similar or higher profits than conventional systems—organic milk price premiums were 50 to 72 percent greater than conventional products between 1996 and 1999;
- Organic systems may be more profitable than conventional profitable systems without the price premiums. For example, organic grain and soybean in the Midwest was more profitable than that of conventional systems because of lower input costs, higher yields in drier soils, and crop mix;
- One recent study that compared organic to conventional apple growing on the Central Coast of California found higher yields and higher returns under the organic system;
- Organic soybeans and grains had considerable price premiums during the 1990s, of over 50 percent for corn, soybeans, wheat and oats from 1993-1999.

- Organic farming systems have been more extensively adopted by the fruit, vegetable and specialty crop industries than by the grain and oil seed industries. Over 1 percent of dry peas and tomato crops were grown organically in 1997, and approximately 2 percent of apple, grape, lettuce and carrot crops. Close to one-third of the "mixed vegetable" and herb crops were organically grown in 1997.
- In contrast, only about .02 percent of corn, soybean, and wheat crops were grown organically in 1997. Oats, barley, sorghum, rice, spelt, millet, buckwheat, rye, dry peas, lentils, dry beans, flax and sunflowers were also produced organically in 1997.
- Due to the increased demand for organic dairy products, organic hay growers are getting up to 40-50 percent premiums (Lenhart 1998). This is in part due to the growing market for organic soybeans for food, especially in Japan where in 1998 a bushel could fetch more than $20. In the U.S., demand for organic milk and other organic dairy products has increased since it became legal to sell milk from cows treated with bovine growth hormone (also called BST). Organic dairymen get just over $17 per hundredweight for their milk.

While the U.S. ranks fourth in the world with total land managed using organic practices at 2.34 million acres, it is not in the top ten when organic is counted as a percentage of total farmland. Switzerland leads this category at 9 percent, followed by Austria (8.64 percent) and Italy (6.76 percent). Approximately 0.3 percent of U.S. cropland is managed organically. Most European countries as well as several U.S. states, including Minnesota and Iowa, have begun subsidizing conversion to organic farming systems in order to maximize environmental benefits of farming. Conversion levels in Europe have been much higher than in the U.S. For the first time in the 2002 Farm Bill, USDA offered small initiatives aimed at assisting producers converting to organic practices, including certification cost-share support, research and technical assistance, conservation initiatives, marketing order exemptions, export promotion and crop insurance. Obstacles to conversion include a limited awareness of organic farming, a lack of marketing and technical infrastructure, and high costs and risks of shifting to a new way of farming.

APPENDIX C

BERKS COUNTY, PENNSYLVANIA
AGRICULTURAL FOCUS GROUPS

SUMMARY REPORT

In March–April 2005, six agricultural focus groups were held in Berks County, Pennsylvania. Individual interviews were held with other stakeholders unable to attend the focus group. The purpose of the focus groups and interviews was to hear directly from agricultural producers, food processors, agricultural industry representatives and others involved in Berks County's agricultural industry on:

- the state of the Berks County agricultural industry,
- the challenges to the industry,
- the needs of the industry,
- the probable future of the industry,
- what hopes or dreams that had for agriculture in Berks County and
- any other ideas they had on how to make agriculture in Berks County viable 20 years into the future.

The focus groups were facilitated two-hour sessions. The following is a list of participants in the focus groups and interviews:

Troy Alderfer, poultry farmer
Calvin Beekman, Beekman Orchards
David Bitler, dairy and cattle farmer
Tim Bock, vegetable and livestock farmer
Sam Burkholder, vegetable farmer, president of Kutztown Produce Auction
Steve Burkholder, hog farmer
Severin Fayerman, farmer
Henry Frecon, Frecon Fruit Farms
Barry Good, farmer
Roy Hetrick, farmer
Tami Hildebrandt, Berks County Agricultural Land Preservation Board
Lloyd Hopkins, Berks County Planning Commission
Dr. Joe Jurcgielewicz, poultry farmer and veterinarian
Rick Keim, Keim Orchards
Lolly Lescher, farmer
Janet Maki, French Creek Vineyards
Paul Martin, dairy farmer
Keith Masemore, dairy farmer, president of Berks County Farm Bureau
Bill Palmer, cattle farmer
Jennifer Reed, Hatfield Quality Meats
Sarah Reese, Berks Equine Council
Ron Rohrback, Berks County Homebuilders Association
Alan Roth, Angora Fruit Farm

David Schuler, dairy farmer
Scott Sechler, manager at Bell & Evans, a poultry broiler operation
Herb Schick, hog farmer
Charlie Seidel, farmer
Forrest Stricker, dairy farmer
David Stutzman, part-time farmer, employee of Mid-Atlantic Farm Credit
Ted Teaford, Albright's Mill, a seed and fertilizer dealer and grain buyer
Vernon Weaver, dairy, poultry and vegetable farmer
Ralph Weise, Berks Packing, a meat-packing and processing operation
Woody Weist, manager of Leesport Farmers' Market

The following summary of 12 hours of discussion about the agricultural industry in Berks County is divided into the following sections:

- Frequently Discussed Issues
- Other Trends
- Hopes and Dreams for Agriculture

The views expressed below are solely those of the focus group participants and do not necessarily represent the views of American Farmland Trust or the Berks County Community Foundation.

FREQUENTLY DISCUSSED ISSUES

The following issues were discussed in all or most of the groups:

Competition for Agricultural Land

> *"Everyone should understand the loss of farmland from a global perspective. People need to understand the loss of farmland on them and on generations in the future."*

> *"The county can continue to develop and look the same as it does today. Population is going to grow, but farmland is not disappearing as fast as people think. We need to use our imaginations and work together."*

Among the top challenges identified by focus group participants, residential development has created fierce development pressure on farmland.

- Developers have driven up land prices, which has resulted in significant amounts of farmland being converted to development. It also has driven farmers into the more mountainous regions of the county with poor agricultural soils.
- Some farmers said they had to buy land adjacent to their operation to keep it from being developed.
- All groups expressed the need for more farmland that is more affordable. Farmers are not able to expand their operations, and the younger generation is prevented from entering farming because of high land prices. Several groups also discussed how land could be

priced for agriculture and made more affordable to people who wanted to buy it and use it for agriculture.
- Modifying tax laws could also facilitate the transfer of agricultural land from generation to generation.

Need for Agricultural Land Preservation Program

"The ag land preservation program has done wonderful things for our family."

The Agricultural Land Preservation Program (ALPP) in Berks County is highly regarded among agricultural producers and others close to the industry as being effective in preserving agricultural land. Most suggest it is absolutely necessary but that more needs to be done to preserve the farmer along with the land.

- One concern was what happens if the farming business fails on land that is permanently preserved. Who will be responsible for maintaining this land? Some people believe the program would not exist if farmers could make a living off the land. Others believed it was to help facilitate generational land transfer.
- Every group suggested that the program should strive to protect clusters of farms and thereby preserve the "agricultural community" and keep out residential housing.
- Some suggested that soon the ALPP would have to pay more than the current $2,000 per acre to preserve the high-quality farms. Others said this would only drive up the price of farmland and make it unavailable to farmers. They agreed that farmers who preserve their land are committed to farming and are not as concerned about how much they are getting (or not getting) paid through the program.
- The participation in the ALPP program will only increase. Some sects of the Amish and Mennonite communities have expressed interest in participating in the program. One farmer, whose family has been here since the mid 1800s, acquired a lot of land, and preserved a lot of that land, suggested that farming can still be profitable here if one works at it, but that new people moving into the area is the biggest detriment.
- Those farmers who participate in the ALPP do so because they love the land and they love to farm. They are willing to participate because they love what they are doing so much. This program is critical to the county; the housing development industry is the only industry that benefits from development—we should be bringing in light industry, not houses. The bond issue is needed to continue purchasing easements.

Declining Agricultural Infrastructure

"[Agricultural] infrastructure in Lancaster has saved agriculture in Berks—can't get certain supplies here. Stores that used to sell to farmers are now catering to suburbanites."

Many participants indicated that agricultural industry equipment dealers and input suppliers have dwindled so that a farmer cannot purchase certain supplies in Berks County.

- Many businesses that once sold to farmers have gradually switched their product lines to cater to suburbanites; farm tractor dealers have switched to lawn mower lines. The

larger feed mills cannot survive here as there is no longer enough animal agriculture for them to be profitable.
- Repeatedly expressed as a priority was the need to maintain a critical mass of agriculture in Berks County to retain the infrastructure that is still here.

Opposition to Animal Agriculture

> *"We must have animal agriculture here. If we want to preserve agriculture here, we need to have animal agriculture. The success of agriculture depends on animal agriculture. The townships are putting pressure and restrictions on animal ag operations and are pressured by people who have moved in. They're making bad rules that are working against agriculture. These townships want farming to be different and not animal intensive, but in order to make enough profit to stay in business we need animal ag."*

Livestock farmers asserted they are a critical part of the county's agriculture. With the scarcity of land, these kinds of operations have allowed farmers to remain profitable using smaller acreages. However, large-scale animal operations face considerable pressures ranging from stringent township ordinances to People for the Ethical Treatment of Animals (PETA) protests.

- At the state level, officials have created the Pennsylvania Environmental Agricultural Certification of Excellence (PEACE) program. Animal producers are participating but the public perception of the animal industry is still not good. Many see them as polluters.
- Some townships have enacted—or are considering enacting—ordinances that make it more difficult to build new animal barns. A farmer in one such township expressed his frustration, "I cannot make money just growing crops. We sold the development rights and should be able to do whatever we need to do, to make the business work. The new ordinance requires a 1,500 foot setback for the new barn—we cannot be in compliance with that because there is not enough space on the property."
- Producers in this industry see their future as bleak because the regulatory environment will prevent remodeling and expansion of existing facilities. This may drive many out of business. Some farmers even suggested that they are considering transferring their operations to places such as Iowa or Missouri because "it's just not worth it" to put up with the pressures they are dealing with in Berks County.
- In placing restrictions on agriculture, elected officials should carefully consider the implications they will have on agriculture and land use in their municipality and in the region.
- The anti-large scale animal farming movement has shown to be organized and well funded. Producers report that the national group PETA has helped organize some of this opposition. Further, protesters who show up at meetings are typically not the neighbors of farmers, but from a suburban development "somewhere else." Some even suggest that this influence has spread to lending institutions and, in some cases, restricted access to capital for animal operations. One group in particular expressed pessimism about extremists who have set an agenda against animal agriculture. While they acknowledge that most of the general public will respond favorably to learning more about animal agriculture, there are some who will continue to oppose.

- Many suggest that this new trend is due to an increasingly suburban population—one that is unfamiliar with farming—and the pressure they exert on township officials.

Conflicts with New Residents

> "*People who are moving into the country want to see the rural landscapes, but do not understand or appreciate farming operations."*

As more and more residential neighbors move into Berks County farm areas, the number of nuisance conflicts rises and creates problems for the farmer. A largely urban and suburban public—one that is divorced from and not knowledgeable about agriculture—was seen by all groups as a significant challenge. This new suburban public has been vocal in opposing routine farm operations—spraying, manure spreading and transport, tractors on the road, smells, and animal agriculture (see above).

- New suburbanites can be an opportunity for local farmers, but they tend to shop at supermarkets and want the cheapest food. They don't understand that to save the local farmland, you need to support local farms.
- If these new people want farmland preservation, they will have to accept animal farming as a regular part of the landscape.

Trend toward Consolidation

> *"Consolidation will cause the loss of businesses as economies of scale dictate that businesses need to be larger and larger."*

As buyers of agricultural products consolidate, become larger, and eliminate smaller buyers, they are able to control prices more effectively. This changes the playing field for the farmer, who can no longer shop around his product to multiple sellers for the highest price. This consolidation trend is seen as a significant challenge to farmers in Berks County.

- From the butchering/meat-packing perspective, all of the larger supply companies are buying up the smaller ones. The small butcher shops are now all gone, there are only a few buyers of livestock now and they are larger operations. Furthermore, local butchers and meat-packers are buying products from out of state. As a meat-packing representative indicated, "only five percent of the meats processed in our facility come from Pennsylvania; this number has steadily declined over the years."
- Regulations put the smaller operations out of business. Many suggest that the federal-level regulatory process is driven by lobbyists from the big companies, and the requirements are based on their operations. Smaller businesses just can't comply with these and remain profitable.
- In regard to equipment, a similar phenomenon is occurring; large dealers are buying up smaller ones and eliminating competition. Consolidation makes the farmer's job more difficult with any agricultural related industry. When buyers consolidate, it enables them to pay a lower price for the product as they no longer have to compete—this negatively impacts the farmer. An indicator of this trend has been the gradual decline in the number

of buyers at the livestock auction at the Leesport Farm Auction. Soon, this auction may close down.

Need for Multi-Level Education about Agriculture

"Education about agriculture needs to start in the schools. Kids need to have that love of the land in their heart. We are losing that love of the land—there is no interest in farming among school kids today."

All groups agreed on the importance of educating the public about agriculture—from young children who have a natural curiosity about animals, food and farming and throughout the school years to adults and even legislators.

- Adults also need to be educated about agricultural issues and the impact they can have on the local farm economy by eating locally produced foods, as well as what is necessary for a successful farm operation of any kind.
- There should be a national farm day where everyone goes to a farm for a day.
- One of the most notable programs is organized by cooperative extension and involves bringing teachers to the farm market and out to farms to educate them on agricultural issues so they can take it back to the classroom.
- Public information about local agriculture needs to be positive; often the media distorts issues so they become anti-agriculture.
- The local papers need to take more of an interest in agriculture.
- People also need to be educated that, in the long term, development is going to cost the township more money.
- Some cultural changes are seen as having a negative impact on agriculture. Family life has changed, and children now spend more time away from their parents. The result has been a shift away from the more traditional meals toward restrictive diets (such as veganism) and more processed foods.
- Producers suggest expanding education to include the importance of eating wholesome foods in addition to general agricultural awareness.
- Extension's role is seen as having shifted more towards education, and some producers suggest that extension should be the leader in this capacity, with their primary function to educate school children, elected officials and the general public.

Declining Support of Elected Officials

"[Township] supervisors are generally good people, but new suburbanites put pressure on them to go against the agricultural industry, and they typically don't handle pressure well."

Locally elected officials play a significant role in influencing agriculture. Focus group participants were concerned about the declining support of legislators and the governor on agricultural issues.

- Legislators hear about agriculture, but it is not clear whether they understand agriculture and how important it is to the state. Many are supportive, but some have

come into office recently who have little to no working knowledge of agriculture. These leaders have in some cases enacted ordinances that work against agriculture and limit what farmers can do on their land.

- Further, in some cases, township supervisors are creating ordinances, that differ greatly from other townships and work at odds with county programs. This creates a confusing and difficult situation for agricultural producers who have become accustomed to more uniform regulations.
- The state should support local food products and use what is produced here before bringing anything else in.
- In most of the groups, there was discussion of agriculture playing a more active role in the political process as it affects agriculture. The people opposing agriculture have already taken this step and producers feel, that in some cases, legislators are not hearing their side of the story.
- On the positive side, the comprehensive planning process and other county level processes have brought township supervisors together on agricultural issues and they have found things in common.
- The governor has cut the budget on Department of Ag programs—this is detrimental to agriculture across the state. Cuts to extension hurt the farm community, research and other programs. We can't lose what we have now with extension and other programs.

Foreign Competition

> *"We are very efficient producers, but are not good exporters, we cannot export products because the price to produce them is too high. In countries such as France and China, agriculture is subsidized and they can compete in global markets. We can't export so we grow less."*

Foreign competition is keeping commodity prices stagnant while input and equipment costs continue to rise. For example, apple growers say the price of apples has not increased since 1985, and in addition, now consumers are wanting the apple varieties grown in New Zealand and elsewhere while apple growers here still have the same red delicious trees and cannot afford to replant all new trees according to the latest trend.

- Producers say they can't compete by exporting t because production costs are so high and agriculture is so heavily subsidized in other countries.
- More fair trade is needed; we are now importing more agricultural products than we are exporting because we cannot compete on the global market. At one time, we (our family business) exported as much as 70 percent of our product, and now that number is down to 10 percent, and falling."

The Future of Farming at Risk

> *"Agriculture does have a future in Berks, but not what we are thinking of. We need to adjust to the conditions, and that will not be the way I want to farm. Farms that are doing niche markets, farmers markets, etc., will be successful—they spend a lot of their time marketing and not farming."*

"If you can do it from a tractor seat, it is difficult to make a living doing it in Berks."

Most discussions suggested that agriculture is still viable in Berks County, but may become marginalized in the near future. Many farmers feel that there is a great opportunity to preserve agriculture in Berks, but that drastic measures need to be taken in the very near future. In many cases farmers or farm families generate income from a non-farm source, as it is very difficult for farming alone to sustain a family today. Many also suggest that the face of farming will be changing.

- Latinos play a very important role in agriculture here and immigration of this group needs to continue because these people are willing to work on farms.
- Participants involved in greenhouse and vegetable operations see a bright future for their operations in Berks County but a dim one for larger operations. These operations cannot compete with the larger scale agriculture of the Midwest, and the large-scale animal operations are being opposed by new suburban neighbors.
- Some suggest that if farmers want to stay in business here, they need to be willing to try new types of farming. It is likely that agriculture will continue to shift away from the purely production focus and increasingly be marketing oriented, selling directly to consumers and doing value added processing and catering to niche markets.
- Markets in Berks are also getting more specialized and catering to a particular niche.
- Farmers here need to adapt to the environmental conditions. They need to realize that they cannot just continue farming as their fathers did and remain profitable. The Mennonite community will change a lot in the next ten years. They will be adapting a lot of new technology; some are already using new machinery. The old mentality will change if they want their younger generation to continue farming and that will help keep the agriculture in the area viable.

Concern for the Next Generation of Farmers

"The younger generation today is largely disinterested in agriculture and working on farms. We are outsourcing agriculture along with everything else to other countries."

One of the greatest challenges identified by participants involves getting the younger generation interested in farming.

- With increased regulatory pressures, neighbors complaining about routine farm operations, stagnant commodity prices, increasing input and machinery costs—all of which lead to a diminished profit margin—it is very difficult for young people to enter the agricultural industry. However, many suggest that there is a good opportunity to farm in Berks at the small-scale diversified level for young, entering farmers.
- With the exception of the Amish and Mennonite communities, the younger generation is not getting into agriculture in Berks County and usually opts for higher paying jobs elsewhere. A number of factors tend to turn the younger generation away from agriculture.

- The large scale of mainstream agriculture requires considerable investment in infrastructure and equipment, making it difficult for the younger generation to enter farming. In addition, to be profitable in the animal industries, an operation must be large—and these larger operations are running into environmental problems.
- A farm mentoring program that worked with older farmers with no next generation to take over the farm would allow someone with no farming experience or land to get into farming.

Profitability Issues

> *The future is bright for smaller operations but not the larger ones—these cannot compete with big Midwest agriculture. Especially for greenhouses and vegetables, there is a market for this. But getting into this has to do with the willingness of the operator."*

Increased profitability was one of the most frequently mentioned hopes and dreams (see section below). How to achieve that was less clear. Production agriculture is stuck at the present system, which is based on the world market. Farmers who are making out better are making differentiated products and selling them direct.

- The profitability of farming needs to improve. Costs of production continue to escalate with rising input and equipment costs and more time spent on regulatory issues. Any way of earning more revenue requires more investment; the farmer operation has to get bigger or diversify and do value-added processing.
- The pricing of agricultural products needs to increase and more profit needs to go back to the farmer.
- Niche and organic markets are growing both in the county and elsewhere. Quite a few producers in the county have recently gotten into growing for these markets. However, the producer must assess the market before growing for it, because the more expensive and/or organic products won't sell in some markets.
- Producers suggested that there are not enough niche markets to support all of the farmers in the area—not everyone should get into niche markets.
- As more farmers transition into niche markets, there is a growing need for education in how to accomplish this.
- More new markets will continue to open up as the cultural diversity increases in Berks County. One example is the market for goat and sheep meat. These animals are sold at auctions, and a large acreage is not needed to grow them out.
- Producers suggest that Berks County ag markets should be promoted to a greater degree.
- Increase number of on-farm businesses, such as those on Lancaster County farms.
- Promote locally produced food.
- One group discussed the Farmers' Market Nutrition Program, which offers lower-income residents and seniors coupons to farmers' markets. Several farmers suggested that this program has enabled people to buy and become educated about local foods who would otherwise not.
- Another advantage to direct marketing that was expressed was developing good relationships with customers by selling retail.

- There are also limitations on some forms of direct marketing—a farmer cannot just drive a truck into town and sell directly because of increased regulations. The alternative to direct marketing—selling at commodity prices—has simply become "not doable" for some producers. As one fruit grower said, "Wal Mart is tough for farmers to deal with—not a winning solution for the farm side."
- Low-interest loans and grants are needed to allow farmers access to capital to upgrade their existing infrastructure. Currently the profit margin that long-term farmers have is so slim that it does not allow for infrastructure upgrades and only pays for annual operating expenditures, preventing farmers from benefiting from other business loan programs.
- The county or state government could offer grants or low interest loans to invest in agricultural operations with a good business plan. Success in the future will mostly be found in smaller scale operations where there is innovation, direct marketing and processing; operations that are market driven.
- Agricultural tourism could be a boon to Berks County if implemented in the right way. Or it could be a disaster if it brings more of the suburban influence to farmland that is already negatively impacting agriculture here. This could involve creating a large regional farmers' market that would attract people from nearby cities. Individual farms could also take advantage of tourism by opening their farms to visitors for recreation and entertainment.
- Alternative energy sources and more efficiency in using and producing energy should be implemented. Energy from biodiesel and other fuel and fiber crops should be considered. Several dairy and cattle farmers suggested that methane digesters may be able to help deal with excess manure but cautioned that the cost and regulatory issues surrounding this would likely deter people from getting involved.

Policy Issues

Participants in all groups discussed policies that are either detrimental to agriculture or are not providing the degree of benefit they could.

<u>Regulations</u>

Costly regulations have driven some farmers out of business. Several farmers in the animal industries suggested that large-scale farms are on their way out of the county and even out of the state.

- When regulations change quickly, they require farmers to spend more time implementing new practices and completing paperwork. This time spent becomes a cost to the operation, and farmers cannot pass these costs along to the buyer.
- The new Environmental Protection Agency (EPA) clean air regulations are seen as particularly damaging to agriculture. According to one group of producers, the EPA is requiring a number of large-scale animal operations to "plead guilty" to the new air quality regulations and pay a fine of $2,500 just to be allowed to continue farming. Additionally, all of the new requirements—filters on exhaust fans, planting tree buffers, etc.—cost the producer a lot of money and these costs cannot be passed on. Zoning ordinances differ significantly between some townships, and the lack of continuity from township to township leads to confusion.

- Increased costs in the way of record keeping and tracking of products will be forthcoming for homeland security and other reasons. These costs are added, but farmers cannot set their own prices; this will drive a lot of people out of business

The Conservation Reserve Enhancement Program (CREP) is giving landowners higher rent payments to plant grasses and trees. This takes land out of farming and creates a higher cost for land rental for farmers. Currently in Berks county, the CREP will pay as much as $135/acre, while agricultural rental payments for the same land range from $25/acre to $50/acre.

Property Taxes

The subject of property taxes was discussed in most groups. All agreed that property taxes on agricultural land and buildings are still too high, despite the agricultural use assessment, and much of these tax revenues are used to pay for schools.

- Mennonite communities pay these taxes but do not even use the schools.
- One potential solution: The case of Frederick County—farmers there convinced county officials to eliminate property taxes on farm buildings.
- Other suggestions included instituting a luxury home tax and devising other incentives to keep land in agriculture.
- The tax assessment program is valuing agricultural buildings based on fair market value and not agricultural value, and this inhibits producers from expanding their operation with new buildings.
- The manufacturing/industrial base has all but disappeared from the county and this has had a negative tax impact. The revenue previously generated by manufacturing is now generated by residential, but residential requires more in services so taxes for everyone has increased. These high tax rates, especially those for public schools, are having a negative impact on agriculture.

OTHER ISSUES

The following issues were only discussed in one group or by one person but are nonetheless important and should be taken into consideration.

Equine Industry

Two years ago, the Pennsylvania Equine Study found that equine is a significant industry in the state and in Berks County. Breeding horses has become profitable in Pennsylvania due to the legalization of slots. The 50- to 100-acre farms that are common in Berks County are a good size for equine operations. In Pennsylvania, only horse breeding operations are considered "agriculture", while training and riding operations are not. The equine industry would like support from county officials in bringing equine operations into the county.

Grass-Based Dairy Farming

One dairy farmer, who had switched to a grass-based, organic system, discussed the advantages of this system. With grazing, there are lower inputs, and this kind of system eliminates a lot of the equipment and pesticides required for a conventional dairy. He also indicated that his cattle herd health has improved.

- Grass-based dairy farming may be easier for a younger person to enter into because there is less labor required and it is more profitable.
- Grass-based farming does not have the environmental problems of many of the CAFO operations, as the cows spread the manure throughout the fields and any that is stockpiled is easily spread on cropland.
- The Natural Resources Conservation Service (NRCS) also has cost-share programs that help producers switch to a grass-based system.
- One of the drawbacks to this would be that many of the chemical, feed and equipment dealers dependent on conventional dairies would be losing business.
- One dairy farmer suggested that sales of raw milk could be increased if other states, especially those bordering Pennsylvania, legalized this practice. And that the selling of raw-milk cheese should be legalized in Pennsylvania.

Health Insurance
In one group, there was significant discussion around the high cost of health insurance and its lack of affordability for farmers. One suggestion is that the state could help with this by forming a program for farmers to obtain group insurance with lower rates.

Development Issues
Several groups discussed issues surrounding present and future development in Berks County.

- **Homebuilder Perspective:** New housing being built in Berks is only equal to 1 percent of the existing stock, or approximately 1,500 homes per year. Need to get the township supervisors to cluster homes and build perpendicular to the major roads. There is not a great influx of people into Berks County; this is a false perception. Townships also need to increase density and smaller lots. All of the new residents can't live in the existing towns and boroughs. Zoning and other regulatory issues affect the homebuilding industry also. The Pennsylvania Department of Transportation has been working with developers to build better developments and roads. The homebuilding industry has also provided jobs to compensate for other lost industry jobs in the county.
- **Highways:** A few participants suggested that Berks County does not have the highway infrastructure for transporting ag commodities, products and feed. Better highways keep people off the back roads.
- **Water Use:** Some discussion on water use centered on it becoming more of a problem for farmers. There would soon be more requirements for documenting water usage and water supplies appear to be diminishing with increased users.

Trends
Other notable comments:

"Mostly we have aging farmers in Berks, except for the Amish and Mennonite communities. These are the only people who are continuously getting in and staying in farming."

"Farms here are getting bigger and the smaller farms are going out of business. Regulations are driving out smaller producers and a lot more farmers are getting into niche markets. Production

agriculture is slowly moving to the Midwest. Dairy farming is migrating out of eastern Pennsylvania and out of Pennsylvania in general. The smaller dairies cannot make a profit."

"The 'Wal-Mart mentality' is hurting agriculture here; people just want the cheapest food, and not necessarily what is highest quality or grown locally. Safe food costs a lot of money to deliver to the consumer, and people need to recognize the true cost of food. What the consumers say they want versus what they are willing to pay for are two separate things."

"As farmers diminish and land prices soar, farmers will more and more often lease land and not own it."

"The role of extension has changed; they are no longer serving large scale agriculture, but are now more for the hobby farmer. They are now putting on workshops for backyard poultry and niche markets. Backyard flocks can transmit avian flu and are not under the same constraints as other large scale animal operations."

HOPES AND DREAMS FOR AGRICULTURE IN BERKS COUNTY

Focus group participants were asked to discuss their hopes and dreams, realistic or not. What would they like to see happen for agriculture in Berks County?

Most participants said they would like to see present farmers be profitable enough to comfortably stay in business and inspire others to get into farming so the county would have more farms and more farmers. They wished that it were still possible to farm on the scale of the previous generation and make a good living. And that their children and grandchildren could take over the present operation and make a good living.

Other hopes and dreams

"Farmers, builders, and local government officials should be able to work together and use their imaginations to agree on a way for both farming and development to thrive. The cities should be made more desirable places to live to take the pressure off farmland. Government should play an active role in alleviating the developer's burden to revitalize the city by offering incentives for making cities better places to live. More attention should be paid to preserving the old buildings that are being torn down."

"Consider the European model of land use in Berks County: preserving all of the land outside the city and putting all residential development in the city limits. However, this would extinguish property rights and one generation of farmers and landowners would suffer, but after that we'd be better off."

"More farmers, reverse the trend towards consolidation—this would be healthy for the business community overall."

"With the horse industry here now, it has given farmers an additional opportunity to diversify and this has given us (feed dealers) more people to work with. I'd like to see more livestock and more diversified farms. Commodity prices should at least equal the cost of production."

"There should be an inner city fresh farm market in Reading—right now there is not one. The Hispanic community there offers an opportunity to grow and market new types of products."

"Farmers need to get out more and express their voices, thoughts and opinions. Negativity is brought out around agriculture more than the positive. Pennsylvania is a unique state; there are lots of family owned processors and farms here. We have a good situation here; more farmers are concerned about quality (of their product) than nickel-and-diming to death. We need to keep out PETA and other groups, such as EPA, who are working against the agricultural industry."

"Agriculture needs to do more direct marketing and selling products directly to consumers. Government programs could help producers with this."

"Shut down development and in the meantime, figure out what the vision is, and what we want our communities to be like. "

"Having an (agricultural) infrastructure like that of Lancaster County."

SCHUYLKILL COUNTY, PENNSYLVANIA
AGRICULTURAL FOCUS GROUPS
SUMMARY REPORT

In March–July 2005, the first two of six scheduled agricultural focus groups were held in Schuylkill County, Pennsylvania. The purpose of the focus groups is to hear directly from agricultural producers, food processors, agricultural industry representatives and others involved in Schuylkill County's agricultural industry on:

- the state of the Schuylkill County agricultural industry,
- the challenges to the industry,
- the needs of the industry,
- the probable future of the industry,
- hopes or dreams that had for agriculture in Schuylkill County and
- other ideas they had on how to make agriculture in Schuylkill County viable 20 years into the future.

The focus groups were facilitated two-hour sessions. The following is a list of participants:

Arlene and Charles Felty – small farmers, had to supplement income in addition to farming. Now farming corn, hay, wheat and replacement heifers.
Jim and Rachel Heppler – Pittman area dairy farmers, been farming whole life.
Glenn Hetherington – farms potatoes, oats, hay, chipping potatoes (all stored). Farming since '85, sells mostly to Weis potato chips.
Martie Hetherington – Conservation District Office
Dave Koch – farm supply store and grain farmer.
Carol Lush and Steve Badesso – wife and husband, own a horse farm and breeding operation. Make own hay and some corn & oats. Sell horses and semen.
Randy McCormick – District Conservationist, NRCS
Craig Morgan – 20 yr. Manager of Conservation District and part-time farmer
Nancy Schlegel – grows potatoes, corn and wheat, fresh potato packing operation, potato processing plant making flakes and flour.
Jack Shafer – 35 yr. Farmer in Schuylkill County, vegetables. Recently retired from farming and passed business to son.
Terry Stair – FSA – family farm in Schuylkill County
Nathan Tallman – Tower City potato grower, grew up around farming and got back in family business
George Tallman – Tallman Family Farms – potatoes for fresh market, currently the 5th family generation on the farm. Concerned about preserving farmland and their way of life and interested in new ideas on how to deal with problems associated with farming.
Dan Troxell – has farming partnership with father, half hay and other half is corn, oats, wheat and beans.
Paul Zukovich – President of food processing plant that has been in operation since '47. Purchased operation in '85.

The following is a summary of six hours of discussion in the three focus groups about the agricultural industry in Schuylkill County.

The views expressed below are solely those of the focus group participants and do not necessarily represent the views of American Farmland Trust or the Berks County Community Foundation.

FREQUENTLY DISCUSSED ISSUES

The following issues were discussed in all or most of the groups:

Farmland Preservation and Development

> *"We're going to become more like Berks has become—development all over the place, more and more conflicts. We have lots of older farmers who are selling their farms; there's no profitability, and their kids will inherit the farms and sell because of the amount developers are willing to pay. If the money were there in farming, this wouldn't be an issue."*

> *"We are getting approached a lot about selling land to developers. Some farmers are selling their land for $40K/acre and getting it."*

The county's agricultural land preservation program was launched in 1989 and has been effective in preserving farms but has a finite number of dollars available. There is currently a waiting list of 70 farms, and the program simply cannot preserve every farm that applies. Currently, the program only pays $1,000/acre and preserves four to five farms annually with a $400,000 appropriation from the county. Yet program officials say that many farms in the county are selling out to development before the program can reach them. The program tries to give priority to farms outside of urban areas that are clustered around other protected farms.

- Farmers suggest agriculture is in decline here and much farmland is either under threat of development or has already been developed.
- Development of farmland has driven up the price of farmland in the southern portion of the county and built bedroom communities on farmland sold to developers. Farmers here can no longer afford to buy land for expansion and face new challenges with new suburban neighbors, who know very little about agriculture.
- With prices being what they are and the situation facing farmers being what it is, many feel the county needs to ramp up efforts to preserve agriculture here. Two critical needs were increasing funding for the agricultural land preservation program and adding staff capacity to address some of the challenges facing agriculture in the county. Many suggest the county's comprehensive plan contains good ideas (such as clustering and agricultural zoning) for preserving agriculture, but it must be implemented—and soon.
- Farmers here suggest that now is the time to plan for the future of agriculture before it is too late. Already, land prices are increasing and the availability of farmland is decreasing. Beginning farmers cannot afford to buy land for farming. As one farmer suggested, "we need to have agricultural communities; preservation is moving too slow,

and we don't have the money to keep up with development. We need to preserve more acres faster to preserve our community."

- Farmers and agricultural professionals both envision a comprehensive planning for agriculture process in which the critical agricultural areas are identified and marked for preservation. These core agricultural areas would retain their status as agricultural communities and be free of suburban encroachment. Development infill would occur in other areas close to existing urban areas or places that could accommodate the growth well. A "no net loss of farmland ordinance" should be enacted that mandates that for every acre developed, one must be preserved—with the developer paying for the preservation. The planning and zoning department needs expanded capacity in the form of a new staff person to work exclusively on agricultural preservation.
- In addition, preserved farms should be required to practice good conservation techniques and be in compliance. Additional funding for the farmland preservation program needs to be found. Some suggestions include a bottle bill, a bond issue, special license plate, hotel taxes and or mitigation fees.
- There is no land available to rent now, part of this is due to larger machinery and growing crops that take up a larger acreage.
- Farmers suggest that the commissioners don't see the value of the county farmland preservation, and that there needs to be more money put in to it. The land here is becoming too expensive for farming.

Labor Issues

> *"How do you manage someone who would rather work in the mini mart for $6.25 than work on the farm for $7.25? Other people don't have the passion for farming. People just don't have any common sense these days."*

Finding good and reliable labor is a difficult issue for farmers. The Hispanic community has offered a good labor source for farmers, but the new industrial park is competing favorably for these workers. A warehouse offers a more controlled environment and generally easier working conditions. Cultural changes among Americans are seen to impact agriculture negatively in this regard. Farmers suggest that even high school kids are no longer interested in farm work when they can get an easier job elsewhere.

- We have had Mexicans for 10 years and 2 of those years we have had particularly bad luck. We went to a labor contractor for Mexicans. We used to have high school kids, but they go back to school, whereas Mexicans want to work. The school districts are only raising kids to flip burgers and sell pizzas and they don't care about agriculture.
- Farm labor requirements are so sporadic. Mexicans are good when they show up, but they have blackmailed us in the past—by raising their costs. Labor is a very big problem. People don't want to work that hard anymore. Can't get anyone to work on a potato machine. Mexicans have no loyalty, are becoming Americanized. They would rather take the warehouse jobs.

Policy Issues

> *"Farming going downhill because of property tax structure, we have to pay property taxes at a commercial rate for processing agricultural products. School taxes are too high a burden which goes against the people who have been in the region a long time."*

Many farmers see certain governmental policies as working against the agricultural industry. From township-level ordinances to EPA regulations and the CREP program, many farmers suggest that governmental policies are unnecessarily damaging to agriculture.

- Farmers report that some township supervisors—those who have no knowledge of agriculture—are working against the ag industry by opposing the expansion of Ag Security Areas (ASAs). These areas were established to protect agricultural land and are a requirement to be eligible for the state's ag land preservation program.
- Nutrient management regulations also challenge agriculture here. Schuylkill has seen an increasing number of intensive hog and poultry operations in the county; some of which are going into manure-saturated areas.
- Many in this county are seeing large-scale animal farming under contract as a solution to profitability issues. In this system, the farmer does not own the animals, but simply grows them out to slaughter size. While this system enables a larger profit on a smaller amount of land, it also generates excessive manure and odors. A new EPA regulation concerning agricultural odors is seen as potentially having a major adverse effect on this kind of farming.
- Some farmers report having lost a lot of land due to CREP--approximately 10% --in one farmer's case. Farmers say there is a considerable price discrepancy between CREP rates ($100 plus/acre) and local land rental rates ($35 - $50/acre) and they cannot compete with CREP rates.
- Regulations around food safety are a huge issue from the processing standpoint. There is a lot of inefficiency and duplicity in inspections.
- One regulation in Rush Township requires that 85% of what you sell at a farm stand has to be from your farm. This significantly undermines a farmstand's ability to stay in business.
- Farmers suggest that members of planning commissions and zoning boards be familiar with agriculture—and that is currently not the case. Too much attention is paid to "creating fancy maps and other details" while the importance of how planning and zoning will affect agriculture is typically overlooked.
- Perhaps most importantly, elected officials need to hear about these issues. Farmers suggest that many of the issues being discussed in this meeting are not getting through to township supervisors and others who need to know about these issues.
- Township supervisors in some areas see agriculture as a deterrent to progress and wont establish an Agricultural Security Area. Supervisors without an agricultural background are more difficult to work with.

Outreach & Education

> *"People need to know about everything that needs to happen to put a piece of food on their dinner plate. We have to apply chemical fertilizers, spread manure, use machinery—people are offended by basic agricultural operations. They end up complaining and this takes up farmers' time; we need strong right-to-farm laws."*

New residents to rural, agricultural areas need to be educated about farming and farming practices. There should be some sort of sign (this is done in Ohio) to the effect: "You are entering an ag community—there are sights, sounds, smells, etc. you may not be familiar with, but they are familiar agricultural practices." Deeds should contain language that the home is located in an agricultural area. The general public also needs to be educated on nutritional issues—this would ultimately benefit agriculture—and this needs to be more mainstream.

- As one farmer commented, TV commercials and newspaper ads were seen as some of the means to convey these messages.
- Another dream was for the general public to realize the value of food. Instead, people value other things and do not value farming and farmland. This needs to change, with more positive advertising in the media—TV, the Internet—about the value of agriculture. Farmers need to learn how to present themselves well and be more proactive in promoting agriculture. It was the farmers who went around and signed up other farmers for the Agricultural Security Areas in Schuylkill; and this kind of activity should continue. Township supervisors need to understand that while new development brings in new revenues, farmland costs less to provide service to.
- The message needs to taken to school kids on a more comprehensive level—the teachers also need to be educated. The county should employ an agricultural education coordinator that would function in a capacity similar to the environmental education coordinator.
- Not many people in Schuylkill County think of it as agricultural. There are other industries that are big here such as mining and most people don't know that the county is big in agriculture.
- People don't know where the food comes from anymore; they think it comes from the grocery store.

Profitability

> *"People don't want to pay for traditional farm products. We have to ask ourselves, should we cater to what people want, such as mini pumpkins and small bales of hay or continue growing the products we do."*

> *"I keep hoping next year will be better."*

Profitability is one of the biggest problems with farming in Schuylkill. Farmers have no control over who to sell to due to the consolidation of buyers and cannot set their own prices. A family owning a large potato operation discussed their situation—they are shipping potatoes across the

country—a result of "overproduction of Maine and Idaho potatoes. Canada subsidies agriculture quite generously and we can't compete. We get undercut in prices. The Canadian government can't continue to subsidize agriculture to the extent it has." A farmer in the group also suggested that federal farm policies are more geared to give funds to larger-scale farming more typical of the Midwest and that smaller farms more typical of Schuylkill and Eastern Pennsylvania cannot favorably compete.

- The most fundamental need for the ag industry here is a better price—a fair price—for the product. Farmers suggest that as fewer and fewer people are familiar with farming and what goes into producing food, this becomes more difficult. Farmers only make a small percentage of what the consumer pays and the rest goes to the middlemen. Foreign competition does not help this situation, with countries that have larger farm subsidies or lower costs of living undercutting producers in this country.
- Farmers dream of the prices changing so that the bottom line in farming would work. Many suggest that this will happen but perhaps not in the current farmers' lifetimes. The government could help in terms of overproduction issues, and the farmer needs to get more of each dollar that the consumer spends on food.
- Prices stay the same, inputs go up. Prices have not moved since 1978.
- Smaller farming is becoming more and more difficult. We cant compete with the bigger Farm profitability
- Flat prices for commodity products and continually escalating prices for inputs—fuel prices 1.5 times what they were last year, fertilizer twice as high—continue to cut into farmers' profit margins here. Commodity prices are not that much higher than the previous generation, but as one farmer said, High oil prices also have an adverse effect on the farm industry here, as everything from fuel to fertilizers comes from oil.

Suburban conflict

> *"We have a constant problem with neighbors—noise, spraying, new people don't want to hear or smell agriculture they just want to see it. Public relations are a very tough issue."*

However, agriculture faces significant challenges here. As one farmer suggested, "the fun has gotten out of farming" because of increased regulatory pressure, new suburban neighbors complaining about routine farm practices and razor-thin profit margins.

- New residents want city rules in the country. They have the wrong attitude in thinking that farmers should cater to them.

OTHER ISSUES

The following issues were only discussed in one group or by one person but are nonetheless important and should be taken into consideration.

Despite the challenges some farmers see positive signs; the younger generation is taking over some farm operations, and in the Amish and Mennonite communities, farming remains the

preferred occupation. In some cases, these communities have even started to participate in government-funded cost-share projects.

Agriculture is still viable and very diverse in Schuylkill County. The county has strong poultry, dairy and hog industries, while it ranks number one in the state in Christmas trees and number five in potatoes. Wineries, vegetables, beef, and other livestock also play important roles in the county's agricultural production.

A lot of farming is going offshore now, no regulations in imported food, don't know what you're getting. The playing field is not level, imports versus locally grown. They are able to use pesticides, etc that we are not here, and grow crops under conditions that we cannot here.

Water regulations will soon impact farming here. Some farmers are concerned about the availability of water—especially in cases where developers want to develop a field adjacent to their farms.

For one farm the Yuengling plant has had a positive effect. Farmers buy spent grain from Yuengling and sell it as dairy feed

Horse farms are not included under some of the definitions of agriculture operations, and are not eligible for beneficial programs but are required to have nutrient management plans. Many horse farms are unable to get grant money for this reason.

Urban revitalization of downtown areas was discussed on one group. Participants felt that a more attractive downtown would draw people to the cities as opposed to moving into the countryside.

Some discussion concerned the high unemployment rate in the county, and that the commissioners are focused on bringing industry in to provide jobs.

Farming is a family affair and tradition in Schuylkill County. Some families see a sustained interest in farming with the next generation, while some cite a complete lack of interest among other 20 to 30 year olds. Farmers suggest that the public perception of farming is not always good and that "(some) people are more focused on money and not quality of life." However, money is a real concern in farming here, and many people are working other jobs off the farm in order to keep the farm. Health insurance is an extremely difficult issue for farmers without off-farm employment, costing a family $10,000/year or $350/month for a single male.

There are no easy answers or no one silver bullet to solve the challenges to agriculture in Schuylkill—alternative energy (methane) and diversification and/or specialty crops alone will not solve the problems. Farmers who have managed to stay in business have proved to be efficient at both the production and business ends of the their operations.

APPENDIX D

INNOVATIVE AGRICULTURAL PROGRAMS AND POLICIES FROM AROUND THE NATION

Listed below are examples of agricultural programs and policies that are working to stimulate and maintain the viability of agriculture and maintain the agricultural land base on the county or municipal levels. Selected policies may be applicable to maintaining agricultural viability in Berks and Schuylkill counties.

FARM PROFITABILITY

STATE-LEVEL PROGRAMS

Connecticut

Connecticut's Farm Enhancement Program is a cost-share grants program that funds capital expansion and diversification projects. The Connecticut Legislature authorized the program in 1999 to "…strengthen the economic viability of the state's agricultural producers through a comprehensive capital fixed asset/diversification program." The first round of grant applications was accepted in October 1999, and through 2003 the program has approved 53 projects and provided $1.8 million in grants.

Massachusetts Farm Viability Enhancement Program

Massachusetts, statewide

http://www.mass.gov/agr/programs/farmviability/

The Massachusetts Farm Viability Enhancement Program provides a team of business consultants and $20,000–$40,000 grants to farmers who qualify for the program and agree not to develop their land for five to 10 years. Consultants work with the farmer to develop business plans that suggest ways to increase on-farm income through improved management practices, diversification, direct marketing, value-added ventures and agritourism. The plan will also make recommendations on environmental and resource conservation practices for participating farms.

New Jersey

The New Jersey Stewardship Program is a pilot program developed in 2001 by the Agricultural Development Committee (SADC), a division of the state's Department of Agriculture that administers its farmland protection programs. The program was funded with $250,000 from a USDA specialty crop block grant, and SADC is seeking additional funding to continue the program. This program works like the Massachusetts program in providing business planning assistance and implementation grants. However, the planning assistance is limited to the development of a feasibility plan for a specific project.

New York State Initiatives
New York, statewide

New York Farm Viability Institute (NYFVI)
http://nyaic.cornell.edu
When New York state received a $1 million grant from USDA to establish an Agricultural Innovation Center (AIC), NYFVI was set up to oversee the AIC. The AIC is a team of agricultural business consultants who work one-on-one with agricultural producers to develop farm business plans, increase efficiency of farm operations and increase the overall profitability of farm operations. While USDA funding will soon expire, the NYFVI has effectively lobbied the state government for an annual allocation, thereby ensuring that the AIC will continue on as a permanent program with state funding.

New York State Department of Agriculture and Markets Grant Programs
http://www.agmkt.state.ny.us/RFPS.html
New York's *Farmland Viability Grant Program* provides funding to individuals or groups for development or implementation of a business plan or implementation of components of farmland protection plans. The *Grow New York Enterprise Program* provides up to $750,000 to municipalities to provide loans to agriculture businesses or to construct publicly owned facilities that will help accommodate production agriculture activities.

COUNTY-LEVEL PROGRAMS
Loudoun County Virginia, Rural Economic Development Plan
Loudoun County, Virginia
http://www.loudoun.gov/business/rural.htm
In 1997, the Loudoun County Board of Supervisors formed a Rural Economic Development Task Force to: "Construct a Rural Economic Development Plan that fosters economic growth that is compatible with preservation of natural resources, that strives for a high value of agricultural production that may be different from traditional agriculture, that supports the equine and tourism industries, that maintains high quality farmland, and that recognizes the need for continued low density planned residential growth." The adopted goal of the task force was to create a plan to double the value of Loudoun's rural economy over a 10-year period. Services offered through the county's Agricultural Development Office congruent with this goal include farm business planning, farm tours, guides to county farm products, a wine trail and promotion of the county's equestrian industry.

Montgomery County, Maryland, Agriculture Services Division
Montgomery County, Maryland
http://www.montgomerycountymd.gov/agstmpl.asp?url=/content/ded/agservices/index.asp
Montgomery County's Ag Services Division is a branch of the County Office of Economic Development and was created to preserve and support the county's agricultural industry. The division works by preserving agricultural land and by providing economic development assistance to farmers. Both purchase of development rights (PDR) and transfer of development rights (TDR) are used to acquire conservation easements on agricultural land, and the program has protected over 62,000 acres to date. Ag Services also provides legislative and regulatory assistance, energy

tax relief, and drought assistance to farmers and coordinates a county program that enables county vehicles to run on locally produced ethanol.

Southern Maryland Agricultural Development Commission (ADC)
Ann Arundel, Calvert, Charles, Prince George's and St. Mary's Counties, Maryland
http://www.somarylandsogood.com/
This regional partnership works collectively to sustain and strengthen agriculture in the five-county region. The ADC began working in earnest on stimulating agriculture in the region after the tobacco buyout settlement. Research showed all non-tobacco agriculture sectors to be critically underdeveloped, and since then the ADC has developed a regional strategy and agriculture action plan, a harvest directory, and a farm viability grant program that provides funding to farmers to develop and implement farm viability plans.

Washington and Saratoga Counties, New York, Agricultural Economic Development Program (AEDP)
Washington and Saratoga counties, New York
http://www.cce.cornell.edu/~washington/AEDP/aedp.html
The AEDP in Washington and Saratoga counties was set up to "retain existing agricultural businesses and to increase agricultural viability and profitability in both counties." This program connects farmers to grants and other financial resources, organizes farm tours, guides and other farm events. AEDP is also working on bringing more livestock processors into the region to benefit local producers and on making the connection between farmers and chefs.

ENTERPRISE DISTRICTS

Michigan Agricultural Processing Renaissance Zones
Michigan, statewide
http://www.michigan.gov/mda/0,1607,7-125-1568_2387_2428---,00.html
In 1997, Michigan became the first state to adopt tax-free Renaissance Zones to help create new jobs and increase investments. These zones are credited with luring 128 companies to the state, creating 3,663 new jobs and generating more than $330 million in new investments. A new initiative was started in 2000 to support Michigan's agricultural industry with the creation of Agricultural Processing Renaissance Zones (APRZ), which are exempt from state and local taxes and open to qualified processors who want to start or expand operations in Michigan. Up to 20 such APRZs will be allowed across the state.

Virginia's Agricultural Enterprise Act of 2005
http://leg1.state.va.us/cgi-bin/legp504.exe?051+sum+HB1947
This new Virginia initiative calls for the establishment of locally designated agricultural enterprise districts. Qualified agricultural and farm businesses located in these districts may apply to the department of agriculture for assistance in developing a new business plan and grant funding of up to half of the costs associated with implementing the plan, to a maximum of $500,000. There are no results to date for this newly created program, set to go into effect January 1, 2007.

FARMLAND AVAILABILITY

CRITICAL FARMS PROGRAM

Carroll County, Maryland

The program was developed in 1992 after learning that the existing farmland preservation program, the Maryland Agricultural Land Preservation Foundation (MALPF) was not particularly effective in preserving farmland when it at risk of being sold to a developer. MALPF requires that the farm be committed to no development for a minimum of five years prior to being considered for easement purchase in its' program. Additionally, the average time from application to MALPF to easement settlement is two years or more. Considering this, and in order to meet its' Master Plan goal of preserving 100,000 farm acres, Carroll County created a special program to assist new farmers and existing farmers seeking to acquire additional farmland.

The Critical Farms Program offers qualified applicants 75 percent of their farm's easement value for the option to acquire the easement in full after a period of five years. When the applicant buys the farm, the Program settles for the easement option and places the farm in the Maryland Agricultural Preservation District. The easement option requires that the new owner apply for easement purchase to the MALPF program at every opportunity over the next five years. If MALPF accepts the new owners application and purchases the easement, the county is reimbursed and the new owner keeps anything above that amount.

The County sets aside a portion of its Farmland Preservation Fund specifically for the Critical Farms Program and the reimbursed funds go directly back to the fund. As of 1998, this program has helped 22 applicants purchase farms on 2,647 acres that would not have been able to without the program (numbers will be updated to cover 2004).

LAND RESCUE REVOLVING LOAN FUND

Eastern Shore Land Conservancy

Cecil, Kent, Queen Anne's, Talbot, Caroline, and Dorchester Counties, Maryland

The Conservancy uses an innovative measure known as the *Land Rescue Revolving Fund* to protect properties threatened by imminent development. Once a property has been targeted for protection, ESLC staff raise local funds through private donations, foundation grants, and applicable governmental grant funding sources. Once these funds have been raised, they are eligible for a dollar-to-dollar match through the Federal Farm and Ranch Land Protection Program (FRPP). Additional funds can be leveraged through the use of a *bargain sale*, or the landowner agreeing to a lower purchase price thereby donating a portion of the local fees raised. For example, a property targeted for protection is appraised at $1 million fair market value and the landowner agrees to a bargain sale, accepting a purchase price of $750,000 and effectively donating $250,000 to local fund raising efforts. Local funds of $250,000 are then raised through the above sources. With $500,000 now raised locally, the project is now eligible for a $500,000 FRPP match.

Once the funding is in place, ESLC purchases the property, places a conservation easement on it and sells it. Funds from the sale proceeds are placed back in the revolving loan fund, accrue interest and are available for the next purchase. The Conservancy has raised approximately $3.5 million for the revolving loan fund and protected five properties on 700 acres with these funds.

ESLC has also negotiated public-private purchases using a variety of funding sources. Recently, they purchased a 178-acre farm from a developer with a bank loan. To repay the loan, grant funding from the Transportation Efficiency Act was used to pay half with 25 percent donated by a local county and 25 percent through the Land Rescue Revolving Fund.

MITIGATION PROGRAM

Davis, California

In 1995, the City of Davis, located in Yolo County, established an agricultural mitigation requirement through an article amendment to its "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. The purpose of the article is to implement the agricultural land conservation policies contained in the Davis general plan with a program designed to permanently protect agricultural land within the Davis planning area for agricultural uses.

AGRICULTURAL ZONING

DeKalb County, Illinois

DeKalb County established its Agricultural Zoning District to ensure that the lands contained therein are well suited to agricultural uses and to prevent the establishment of incompatible uses that would negatively impact agricultural operations. In addition to the permitted agricultural uses, contained within this ordinance are specific provisions for uses that are compatible with the county's agricultural industry. These include roadside stands, small-scale "agritainment," "u-pick" orchards and gardens, and game breeding and hunting preserves, farm processing facilities and other uses compatible with local agriculture.

Polk County, Oregon

Polk County's Exclusive Farm Use Zoning District was established "to conserve agricultural lands, consistent with the Goals and Policies of the Polk County Comprehensive Plan." The ordinance limits commercial and residential uses in the district to those that have a clear relationship with the farm operator(s) and their respective farm operations. Agricultural related uses are permitted by right, while all other uses are subject to administrative review.

Yolo County, California

Yolo County's agricultural zoning districts establish minimum lot sizes between 20 and 320 acres through a sliding-scale zoning ordinance. The purpose of the lot size requirements is to preserve the farm's ability to be self-sustaining and minimize incompatible adjacent land uses. The acreage minimums in each zone correspond to the farm size in each respective zone. According to the 1997 USDA Census of Agriculture, the county's 923 farms averaged 581 acres in size with over half the farms 50 acres or larger. Yolo's agricultural zoning ordinance works with the City of Davis's farmland mitigation ordinance.

Clarke County, Virginia

Clarke County's Agricultural-Open Space-Conservation District was established in order to maintain the agricultural, forestall, and low activity recreational and service uses prevalent on agricultural, forest and other open space lands, to conserve water, soil and other natural resources,

to reduce fire hazards and enhance the aesthetic value of the area. The zoning ordinance for this district establishes a sliding scale zoning provision that limits the number of single family detached dwelling units on district lands. The number of permitted dwelling units decreases per acre as the over all parcel size increases: parcels of 15 to 39 acres are allowed two units while parcels over 1,030 acres are allowed 15. This ordinance also establishes a maximum lot size of four acres for dwelling units.

TRANSFER OF DEVELOPMENT RIGHTS (TDR)

New Jersey Pinelands Region

Located in southeast New Jersey, the Pinelands region possesses unique and important natural and cultural resources. Recognizing the special value of this region and that existing structures would not adequately protect the area, local residents mobilized in the early 1970s. Ultimately, their efforts resulted in the creation of the N.J. Pinelands Commission, a regional planning authority with powers to plan, direct, and regulate development and land use. The commission sought to protect agriculture and natural resource areas in the region and divided much of the region into different land use categories. Land uses in areas with agricultural and/or natural resource values were severely restricted, and growth was encouraged in areas where it could be accommodated. To equitably distribute the costs of these land use restrictions, Regional Growth Areas were identified that could accommodate increased density and created the Pinelands Development Credit (PDC) Program. The program allows development rights to be transferred from protected areas to growth areas, while returning some of the financial benefits of development to the sending area. In 1981, the first PDC allocations were made, and by 2000 nearly 20,000 acres had been protected through the program.

Warwick, Pennsylvania

The Town of Warwick's TDR program was created in 1993 and had preserved 608 acres at the end of 2004. The program established the town's 3,787-acre Agricultural Security Area as the sending area and the town's industrial zone as the receiving area. The township serves as the broker between farm owners and applicants in the industrial zone. The purchase of one TDR enables buyers to increase their permitted lot coverage by 4,000 square feet, to a maximum of 70 percent lot coverage.

PROPERTY TAX RELIEF

Clifton Park, New York – Local property tax abatement for term easements

The Town of Clifton Park, New York, employs a term easement program in which the percentage of pre-easement taxable value decreases over the easement term. Easements may be granted for agricultural, conservation or historic preservation purposes and must be for a minimum term of 15 years. The taxable value of 15-year term agricultural easement is 15 percent of the pre-easement value, decreases 1 percent per year until it reaches 10 percent at 20 years, and remains at 10 percent for as long as the easement is in effect. Easements broken are subject to three- to five-year rollback penalties depending on how long the easement has been in effect.

Maryland Counties (Ann Arundel, Baltimore, Calvert, Charles, Dorchester, Harford, and Wicomico) – Property tax credit for preserved land

All of these Maryland Counties offer a property tax credit for land placed in a conservation easement. Charles County's credit is optional for agricultural land and includes agricultural

buildings. Dorchester's credit is offered on farmland with a state approved nutrient management plan and in a conservation easement.

Pennsylvania – Freeze school tax assessments on permanently protected farmland
Pennsylvania's Act 153 of 1996 authorized school district boards to enact a tax freeze on protected agricultural and open space lands. The Council Rock School District was the first to take advantage of this measure by freezing agricultural assessment levels on November 22, 1999. Eligible lands have had their development potential extinguished by a local government acquiring their "open space property interests" through an easement acquired under the state Agricultural Area Security Law or through the transfer and retirement of development rights by a local government "without their development potential having occurred on other lands." The Council Rock action will affect farmers in five townships in Bucks County, Pennsylvania.

New York - Farm Building Exemptions
Sections 483-a and 483-c of New York's Real Property Tax Law exempt agricultural structures from taxation. Eligible structures include silos, grain storage facilities, bulk tanks, manure facilities and temporary greenhouses. Other structures, such as those used for retail merchandising, processing and residential uses do not qualify for the exemption. Farm owners must apply to the program within a year following completion of construction of any new agricultural buildings in order to receive the exemption.

AGRICULTURAL LEADERSHIP AND IMPROVING RELATIONS WITH THE NON-FARM COMMUNITY

AGRICULTURAL LEADERSHIP PROGRAMS

Kent County, Maryland, Agricultural Advisory Committee
Kent County, Maryland
Kent's Agricultural Advisory Committee consists of one farmer from each of the county's seven election districts. The commissioners appoint members to five-year terms. The committee was formed by legislation in the early 1980s and gave the farm community a direct voice to elected officials. The committee advises county commissioners on all issues affecting agriculture in the county. Recent involvement has included development issues, re-writing right-to-farm laws and managing sewage sludge.

Massachusetts Agricultural Commissions
http://www.mass.gov/agr/agcom/index.htm
Massachusetts Agricultural Commissions serve as a voice advocating for farmers, farm businesses and farm interests at the township level. These commissions work with other town boards about common agricultural issues, help resolve farm related problems or conflicts, work to preserve farmland in the community and assist with natural resource management. The commissions are formed at town meeting through the passage of a local by-law. Each town can individually determine the duties and responsibilities of their agricultural commission and specify them in the by-law.

New Jersey County Agricultural Development Boards
http://www.co.hunterdon.nj.us/cadb.htm
Hunterdon County's Agricultural Development Board (CADB) has the mission of promoting "the present and future of Hunterdon County agriculture by preserving agricultural land and by promoting public education and agricultural viability." This CADB and others like it work to preserve farmland in the county, promote the education of government officials and the general public about right to farm laws, agricultural land preservation and other agricultural matters, encourage tourism, promote agribusiness, and promote soil and water stewardship on preserved farms.

New York's Agricultural and Farmland Protection Boards
http://www.cardi.cornell.edu/land_use/environmental_management/000238.php
New York's Agricultural and Farmland Protection Boards work to enhance agricultural land preservation and allow agricultural concerns to be heard at the local governmental level. These boards were established in the Agricultural Protection Act of 1992 and consist of a diverse membership aimed at promoting the state's agricultural industries. Each board consists of four farmers, one representative from agribusiness and land preservation, the chair of the county soil and water conservation district board, a member of the county board of representatives, an extension educator, the county planning director, and the county director of real property tax services. These boards may function as a liaison between the farming community and town and planning boards and educate non-farmers about the positive impact of agriculture. The boards can also provide local expert analysis in cases where farming practices are in question and mediate disputes involving farm interests. In general, these boards encourage communication between the farm and non-farm sectors to increase understand about agriculture.

RIGHT TO FARM ORDINANCE AND BUFFER REQUIREMENT

Davis, California
The City of Davis's Right to Farm and Farmland Preservation ordinance works to limit the conditions under which agriculture is deemed a nuisance. The city also maintains a policy of notifying all purchasers and tenants of nonagricultural land that is close to existing agricultural land of its support of agricultural land and operations. This notification requirement also serves to inform the purchaser of nonagricultural land of the effects of living in close proximity to a working agricultural operation.

The Right to Farm and Farmland Preservation ordinance contains a buffer requirement for new developments adjacent to any land designated as agricultural. The buffer provision requires that a 150-foot "agricultural buffer/agricultural transition area" be situated between existing agricultural land and any new adjacent development. The buffer will serve to minimize conflicts between agricultural and non-agricultural uses and protect public health. Each buffer is comprised of two sections: a 100-foot agricultural buffer adjacent to the agricultural land and a 50-foot agricultural transition area adjacent to the agricultural buffer and the new development. Uses in the 100-foot buffer are limited to natural areas, drainage swales, utility corridors and railroad tracks. Uses in the 50-foot transition area include all of those permitted in the 100-foot buffer as well as bike paths, benches, lights, and others of a similar character.

APPENDIX E

AGRICULTURAL INDUSTRY PROFILES

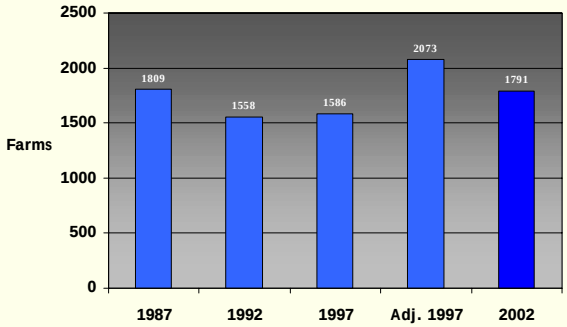
Agricultural Industry Profile

for

Berks County, Pennsylvania

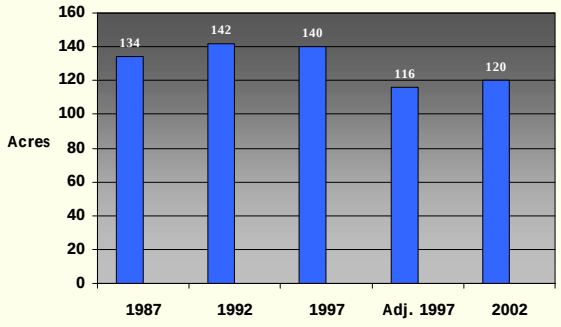
Trends Based on the U.S. Census of Agriculture

The Number of Farms Did Not Change Significantly



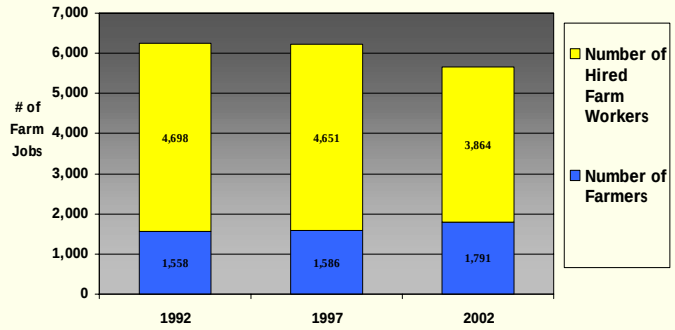
Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Average Size of Farms Showed Little Change



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

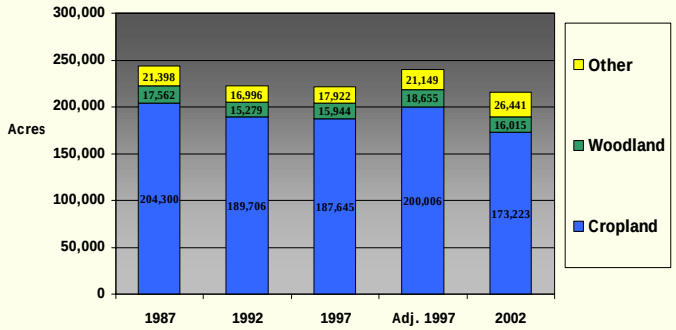
Farm Jobs Decrease Slightly



Source: United States Census of Agriculture, 1992, 1997, and 2002.

Berks County, Pennsylvania

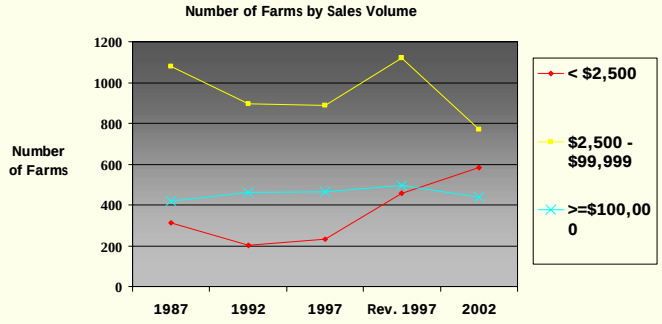
Land in Farms is Decreasing



Source: United States Census of Agriculture, 1987, 1992, 1997, and 2002.

Berks County, Pennsylvania

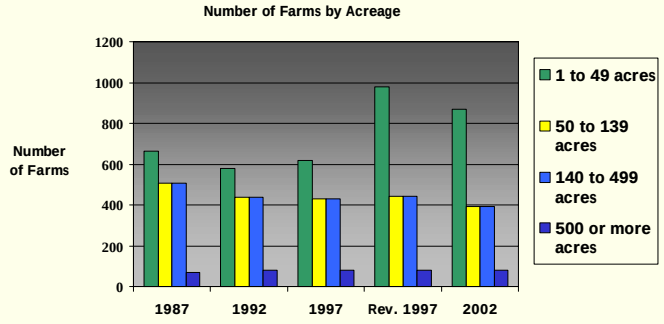
Small and Large Grossing Farms Increase; All Others Decrease



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Berks County, Pennsylvania

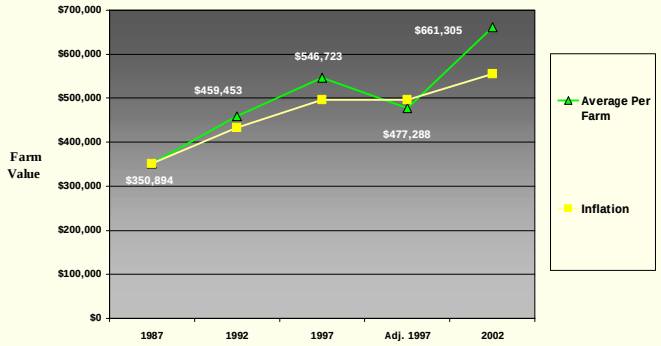
Small and Large Acreage Farms Increase; All Others Decrease



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Berks County, Pennsylvania

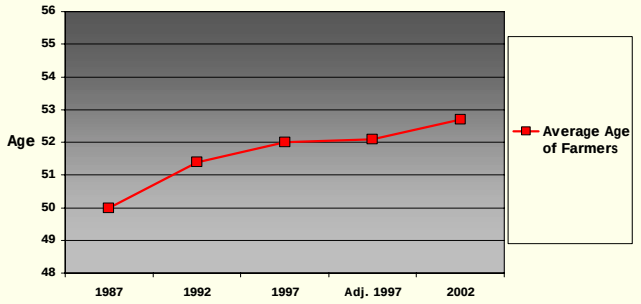
The Average Per Farm Value of Land & Buildings Rose 85%; Outpacing Inflation



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Berks County, Pennsylvania

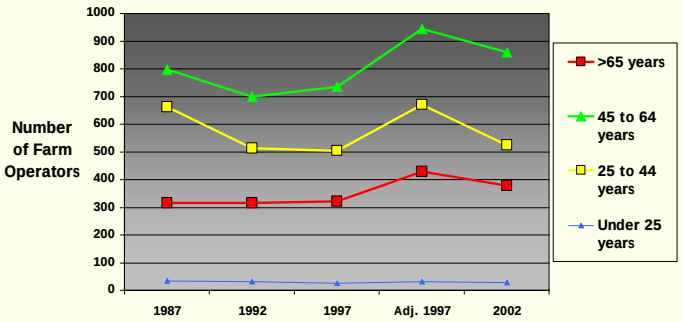
Average Age of Farmers has Increased



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Berks County, Pennsylvania

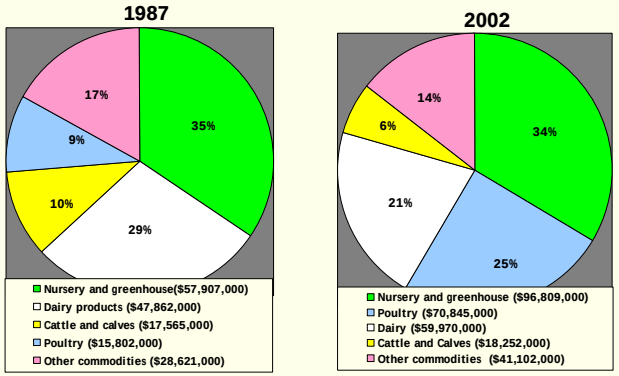
Younger Farmers (Under 44) Decrease; Older Farmers (45 and up) Increase



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Berks County, Pennsylvania

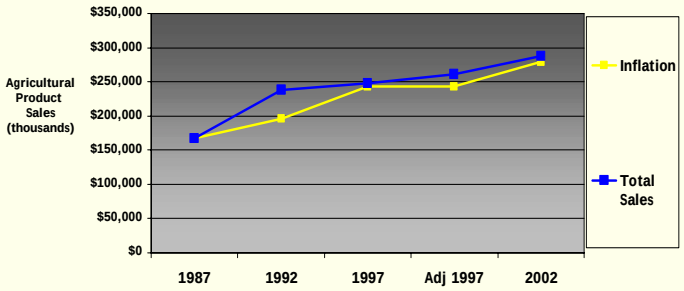
Nursery & Greenhouse, Poultry Make Significant Gains



Source: United States Census of Agriculture, 1987, 2002.

Berks County, Pennsylvania

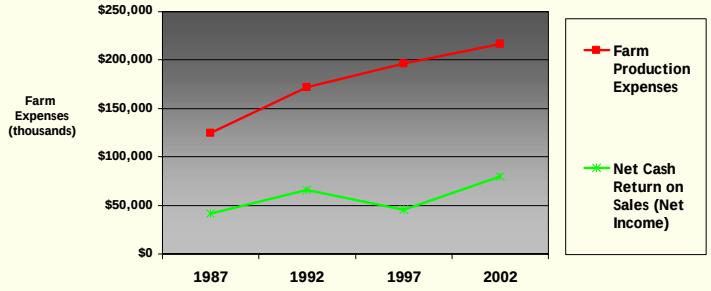
Agricultural Product Sales Keep Pace With Inflation



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Berks County, Pennsylvania

Net Cash Returns Keep Pace With Farm Expenses



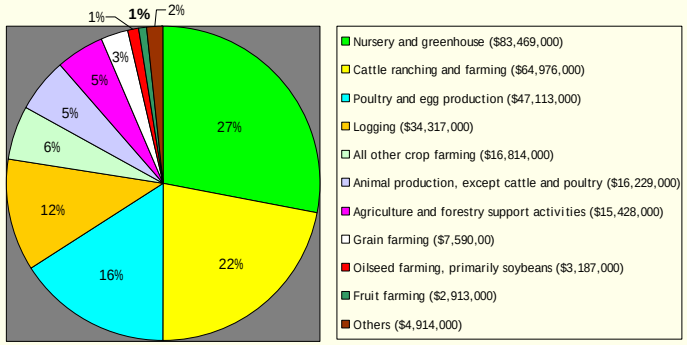
Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Berks County, Pennsylvania

The Agricultural Industry In the Larger Economy

Berks County, Pennsylvania

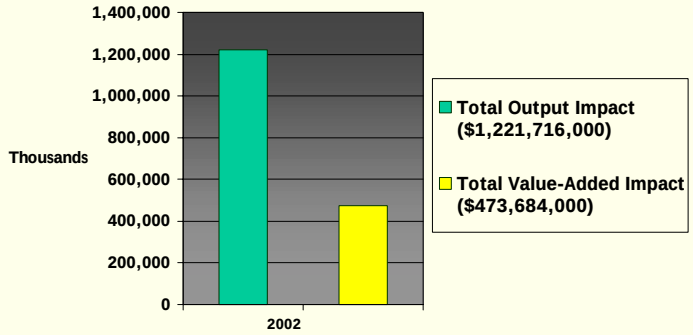
Agricultural Direct Output Amounted to $297 Million in 2002



Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Berks County, Pennsylvania

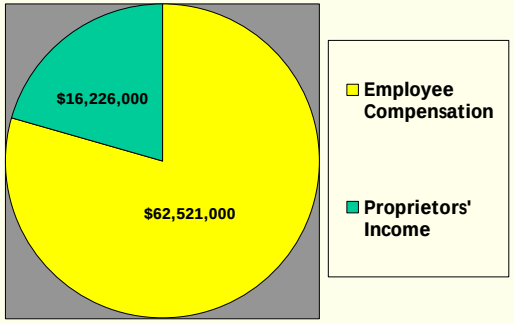
Total Economic Impacts of Agriculture, Resource-Based Industries and Food Processing Industries



Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Berks County, Pennsylvania

Agricultural Industry Income Reached $79 Million in 2002

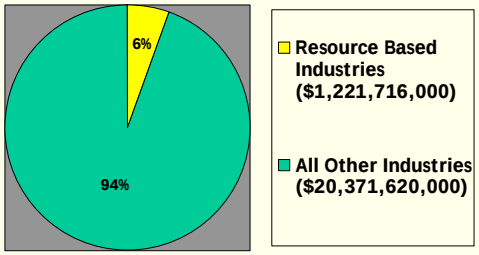


Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Berks County, Pennsylvania

Resource Based Industries Accounted for 6 % of the Local Economy

Economic Output - 2002



Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Berks County, Pennsylvania

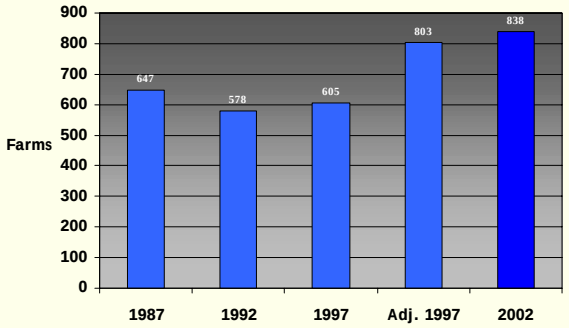
Agricultural Industry Profile

for

Schuylkill County, Pennsylvania

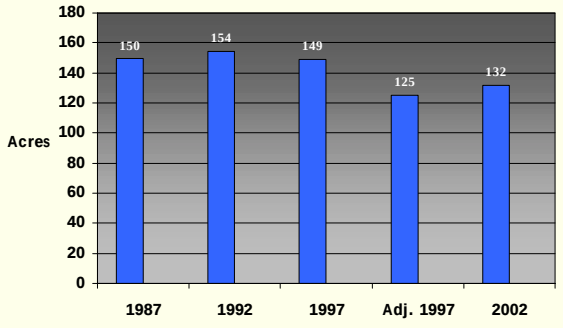
Trends Based on the U.S. Census of Agriculture

The Number of Farms Increased by 30%



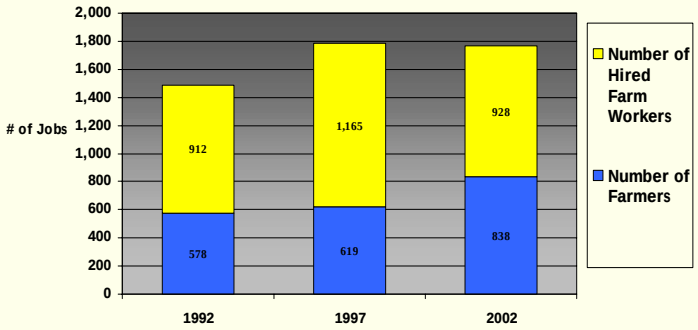
Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Average Size of Farms Decreased by 12%



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

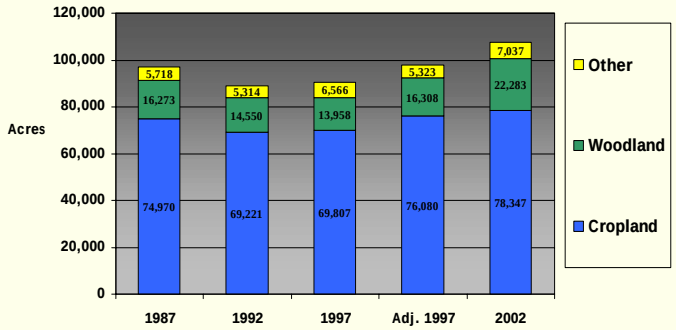
Farm Jobs Increased 19%



Source: United States Census of Agriculture, 1992, 1997, and 2002.

Schuylkill County, Pennsylvania

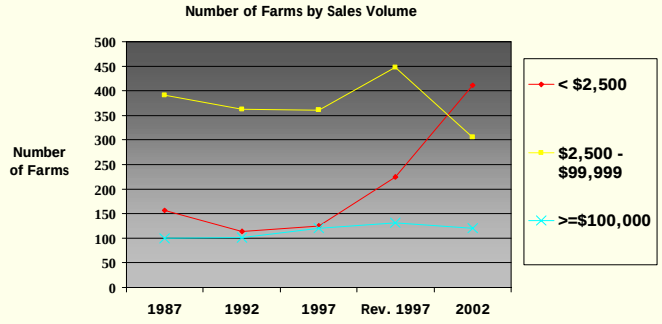
Land in Farms Increased 11%



Source: United States Census of Agriculture, 1987, 1992, 1997, and 2002.

Schuylkill County, Pennsylvania

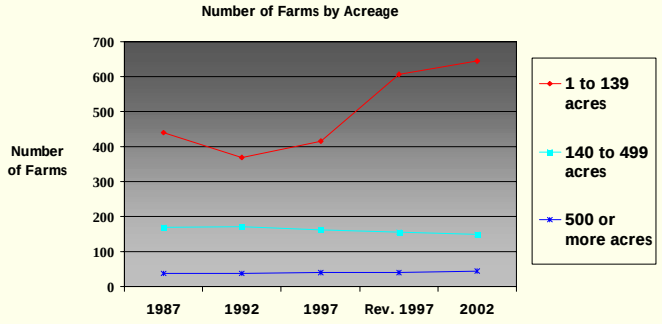
Small and Large Grossing Farms Increase; Mediums Decrease



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Schuylkill County, Pennsylvania

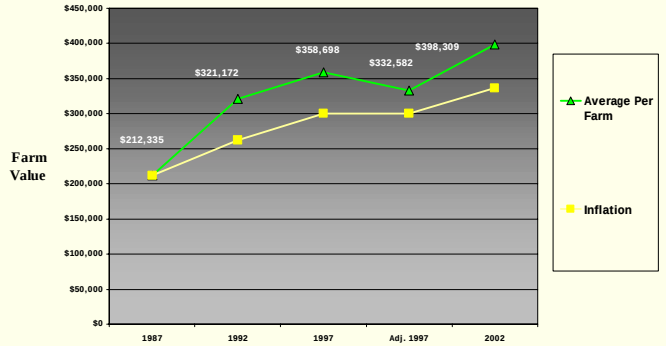
Small and Large Acreage Farms Increase; Mediums Decrease



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Schuylkill County, Pennsylvania

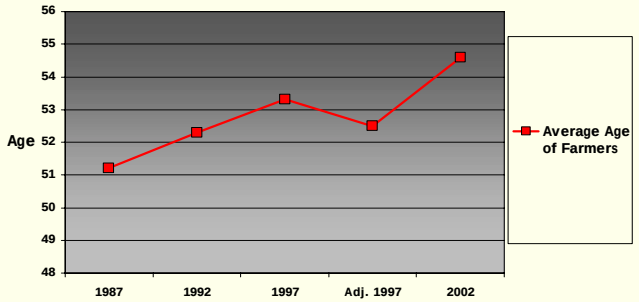
The Average Per Farm Value of Land & Buildings Rose 88%; Outpacing Inflation



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Schuylkill County, Pennsylvania

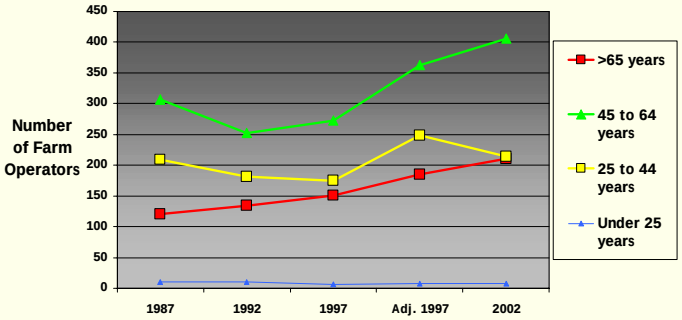
Average Age of Farmers Increased by Over 3 Years



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Schuylkill County, Pennsylvania

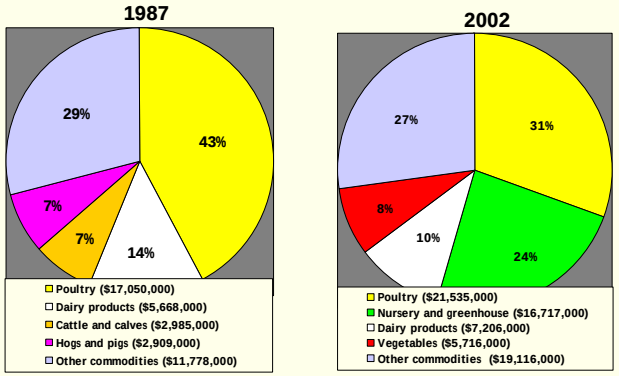
Younger Farmers (Under 44) Hold Steady; Older Farmers (45 and up) Increase



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Schuylkill County, Pennsylvania

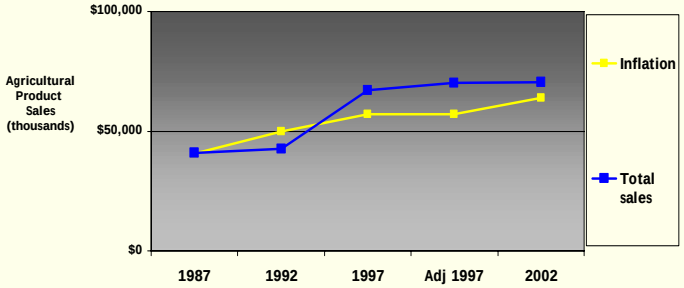
Nursery & Greenhouse, Vegetables Move Into Top 4 Agricultural Products



Source: United States Census of Agriculture, 1987, 2002.

Schuylkill County, Pennsylvania

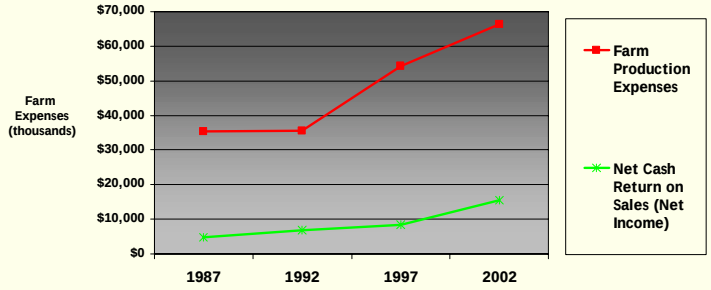
Agricultural Product Sales Keep Pace With Inflation



Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Schuylkill County, Pennsylvania

Net Cash Returns Keep Pace With Farm Expenses



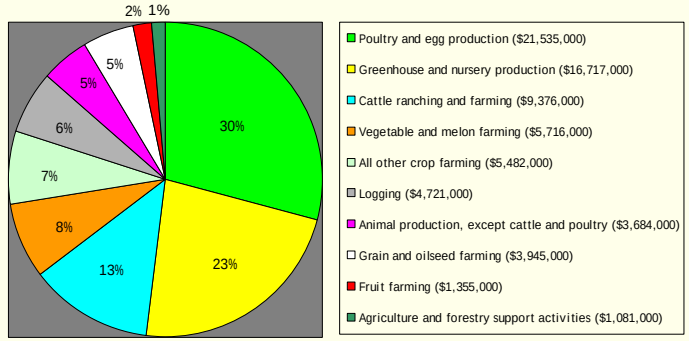
Source: United States Census of Agriculture, 1987, 1992, 1997, 2002.

Schuylkill County, Pennsylvania

The Agricultural Industry In the Larger Economy

Schuylkill County, Pennsylvania

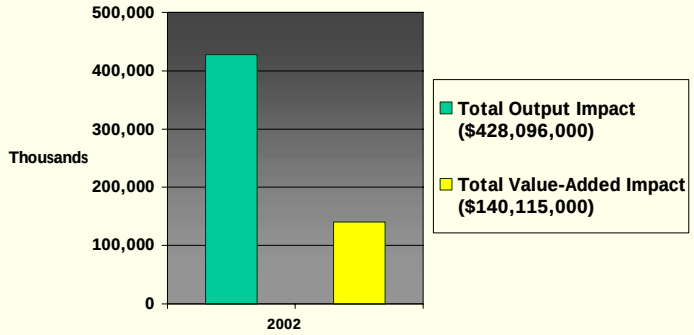
Agricultural Direct Output Amounted to $74 Million in 2002



Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Schuylkill County, Pennsylvania

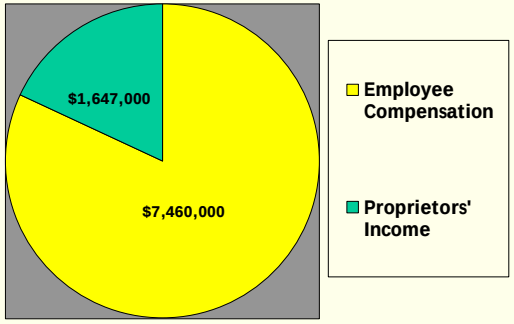
Total Economic Impacts of Agriculture, Resource-Based Industries and Food Processing Industries



Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Schuylkill County, Pennsylvania

Agricultural Industry Income Reached $9 Million in 2002

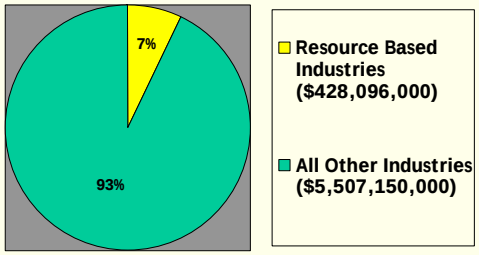


Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Schuylkill County, Pennsylvania

Resource Based Industries Accounted for 7 % of the Local Economy

Economic Output - 2002



Source: 2002 Minnesota IMPLAN Group, Inc. Stillwater, Minn.

Schuylkill County, Pennsylvania

APPENDIX F

FARM PRODUCTION EXPENSES
BERKS AND SCHUYLKILL COUNTIES

Input	1987		1992		1997		2002		% Change, 1997 to 2002	
	Berks	Schuylkill	Berks	Schuylkill	Berks	Schuylkill	Berks	Schuylkill	Berks	Schuylkill
Fertilizer	$ 6,143	$ 2,094	$ 6,324	$ 1,750	$ 6,429	$ 2,320	$ 8,131	$ 1,836	**26%**	**-21%**
Chemicals	$ 3,176	$ 1,295	$ 3,635	$ 1,565	$ 5,200	$ 1,595	$ 5,125	$ 2,173	**-1%**	**36%**
Seeds, plants, vines, trees	$ 4,139	$ 1,232	$ 4,169	$ 1,322	$ 7,139	$ 2,048	$ 9,817	$ 2,255	**38%**	**10%**
Livestock and poultry	$11,671	$ 3,971	$ 13,962	$ 3,851	$ 13,993	$ 8,001	$ 14,324	$ 4,011	**2%**	**-50%**
Animal feed	$16,949	$ 12,551	$ 25,841	$ 10,242	$ 55,040	$24,321	$ 56,950	$ 17,760	**3%**	**-27%**
Fuels	$ 5,217	$ 1,621	$ 6,555	$ 1,485	$ 7,518	$ 2,535	$ 6,001	$ 1,983	**-20%**	**-22%**
Supplies, repairs and maintenance	$ 8,204	$ 2,317	$ 10,890	$ 2,362	$ 12,055	$ 3,890	$ 17,504	$ 6,420	**45%**	**65%**
Hired farm labor	$24,760	$ 2,671	$ 42,743	$ 3,953	$ 34,766	$ 6,336	$ 39,507	$ 6,498	**14%**	**3%**
Contract labor	$ 3,295	$ 326	$ 1,075	$ 111	$ 3,444	$ 587	$ 7,640	$ 230	**122%**	**-61%**
Custom work	$ 1,847	$ 354	$ 2,419	$ 401	NA	NA	$ 3,807	$ 587	**NA**	**NA**
Cash rent	$ 4,004		$ 4,740		$ 4,130	$ 1,165	$ 4,725	$ 1,299	**14%**	**12%**
Interest	$ 7,479	$ 1,689	$ 7,694	$ 1,839	$ 9,426	$ 2,418	$ 9,620	$ 1,858	**2%**	**-23%**
Property taxes	$ 3,665	$ 734	$ 4,591	$ 981	$ 7,121	$ 1,684	$ 7,473	$ 2,193	**5%**	**30%**
Other	$14,495	$ 2,603	$ 21,664	$ 3,768	$ 27,922	$ 2,414	$ 30,937	$ 2,276	**11%**	**-6%**

Table 3. Farm Production Expenses, Berks and Schuylkill Counties (in $1,000s)
Source: USDA, Census of Agriculture, 1987, 1992, 1997 and 2002

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