



# **Slicing and Dicing our Way to New Jobs and Economic Opportunities**

**PRESENTER:**

**Chris Harmon, CADE, Executive Director**



# Supporting Agriculture in New York Since 1991

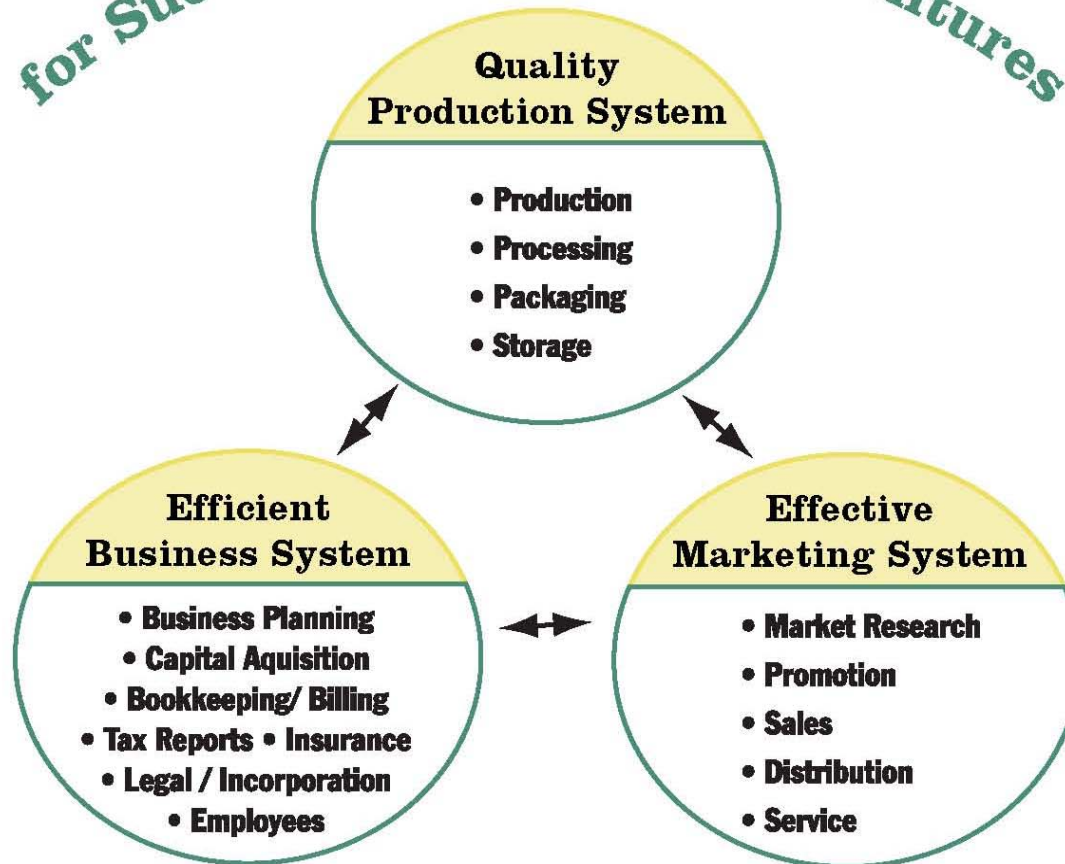




## **MISSION STATEMENT**

**CADE's mission is to increase the number and diversity of successful farm enterprises and related businesses in New York.**

# The Agriventure Model for Successful Agricultural Ventures



# Agriculture as Economic Development

**When CADE looks at agriculture as economic development we look at the following:**

- Economic Multipliers
- Job Creation and Long term retention
- Locally circulating dollars
- Importing new dollars from outside the geographic region
- Value Added Production
- Dollars saved by keeping farms from being developed
- Developing Food Value Chains

# Economic Multipliers

*“An economic multiplier is a number used to estimate economy wide impacts of industry specific economic changes.”*

*Source: David Kay, Cornell Local Government Program*

## Three key concepts:

1. The concept of an economic stimulus through a change in final demand
2. The notion of a chain of spending and re-spending that is set into motion by an initial economic stimulus
3. The notion of “leakage” from a local economy

# LET'S APPLY THIS TO AGRICULTURE

For example, a multiplier of 1.5 means that for every \$1.00 generated by the family farm, an additional \$0.50 is spent in the local economy. This multiplier includes the upstream effects of the goods, services and labor from within the community to produce the product: Farmers rely on a variety of local businesses such as feed and seed dealers, fuel companies, machine repair shops, veterinarians and other farms. The multiplier also includes the downstream effects related to processing, transporting and marketing necessary to bring agricultural products to the consumer, thereby stimulating more business activity. These “upstream” and “downstream” linkages show how much New York’s economy stands to benefit from buying local products and supporting the expansion of local family farms. Economic activity generated by the agricultural sector tends to have a relatively larger impact on the local economy than dollars produced by other sectors.

By applying NYS economic multipliers for each agricultural sector to the gross revenues of each business, we are able to measure the “upstream” and “downstream” linkages of economic activity. The more linkages the larger the multiplier.

# Economic Multipliers by Sector, NY State

<u>Production Agriculture Industries</u>	<u>Total Income (TI)</u>	<u>Employment (EMP)</u>
Dairy	2.29	1.52
Crops	2.28	1.51
Nursery and Wood Products	1.78	1.39
Poultry and Livestock	1.64	1.37
<u>Agricultural Manufacturing Industries</u>		
Dairy	2.61	3.53
Grains	2.16	2.58
Fruits and Vegetables	1.67	2.09
Meat	1.65	1.99
<u>Other Economic Sectors</u>		
Construction	1.66	1.57
Services	1.48	1.39
Manufacturing (non food)	1.41	1.62
Retail and Wholesale trade	1.40	1.30
Transport and Utilities	1.31	1.48
Finance, insurance, and real estate	1.19	1.54
Mining	1.09	1.82

**Multipliers for Total Income (TI) report the change in the sum of employee compensation, proprietary income from self-employment, and other property income per \$1 of direct increase in regional income or payrolls.**

**Multipliers for Employment (EMP) account for the total change in FTE jobs associated with direct creation of an initial job to produce output going to final demand.**

*(Policy Issues in Rural Land Use, Dept. of Ag and Markets, CCE, Vol. 9, No.2 Dec. 1996)*



# LARRY'S CUSTOM MEATS

## HARTWICK, NY

Larry Althiser has over thirty years in the meat processing business and was operating a custom exempt (non-USDA) plant in Hartwick, NY since 2002. Although his business was cash positive and thriving, the actual building itself was falling apart. In his old plant His maximum capacity was 300 Cattle, 600 Hogs, and 100 Lambs. Total in revenues at 100% capacity was \$264,500 and he employed 4.5 FTE.



# Economic Impact of Larry's Custom Meats as a Custom Exempt (Non-USDA) Plant

- Kill fees were \$50/beef, \$35/hog and \$.65/lb for processing fees, and \$80/lamb flat rate. At 100% capacity he took in \$264,500 (300 cattle (700lb) x \$505 + 600 hogs (200lbs) x \$200 + 100 x \$80 ) with 4.5 FTE. These were not able to be sold retail, non-USDA, but could be sold as whole, halves and quarters.
- Conservative Retail Sales for Farmers are \$1750/beef (\$2.50/lbx700lb) \$500/hog (\$2.50/lbx200lb)\$250/lamb.
- This returns \$850,000 in sales/year to area farmers. (300 beef x\$1750 = \$525,000 + 600 hogs x \$500 = \$300,000 + 100 lambs x \$250 = 25,000k = \$850,000).
- When we apply a 1.64 economic multiplier for Livestock to the \$850,000 return to the farm there is a return to the community of \$1,394,000/year.

# LARRY'S CUSTOM MEATS

## HARTWICK, NY



In June 2010 Larry Althiser purchased 60 acres across from his current facility on St. Rt. 205. He began building a new USDA Licensed Livestock Processing Facility in August. His employee numbers will increase from five to fifteen full time employees (at full capacity). Larry's Custom Meats capacity will be 2000 cattle, 2000 hogs and 1000 lambs per year. Financing for this plant totaled \$800,000. With his equity, equipment, customer base, the total investment was approximately one million dollars.

# Economic Impact of his New Plant

- In his new plant, he will be able to kill 2000 cattle, 2000 hogs, and 1000 lambs. At \$600/beef, \$250/hog and \$80/lamb **Larry will generate \$1,780,000 in business/year** ( $2000 \times \$600 + 2000 \times \$250 + 1000 \times \$75$ )
- Conservative Retail Sales for Farmers are \$1750/beef (\$2.50/lb x 700lb) \$500/hog (\$2.50/lb x 200lb) \$250/lamb
- **This slaughterhouse will return \$4,750,000 in retail sales/year to area farmers.** ( $2000 \text{ beef} \times \$1750 = \$3.5\text{m}$  +  $2000 \text{ hogs} \times \$500 = \$1\text{m}$  +  $1000 \text{ lambs} \times \$250 = 250\text{k} = \$4.75\text{m}$ )
- **When we apply a 1.64 economic multiplier for Livestock to the \$4.75 million return to the farm there is a return to the community of \$7,790,000/year!**

# Potential for Grazing Cattle in NYS

According to the Grasslands Utilization Team of Cornell, there are 3.5 million acres of fallow grasslands in upstate NY. If only **15%** of these lands were put back into production, 525,000 acres, and a farmer could grow a cow on 3 acres, an additional 175,000 cows could be produced. If slaughterhouses like Larry's were built to accommodate this increase, and they could handle 3,500 beef each, then we would need 50 more slaughterhouses. These 175,000 cattle would produce 500 -1000 (175 - 350 head/farm) farm jobs, 650 slaughterhouse jobs, \$105 million in slaughterhouse revenue (175,000 x\$600), and over \$306 million in potential retail sales.

## Comparison of Farmers' Markets Sales to Selling Whole & Half Carcasses Yield from a 708 lb. Carcass – Belted Galloway owned by Chris Harmon & Processed at Steiners Packing in Otego, New York

Organ Meats (Liver, Heart, Tongue, Oxtail)	16.43 lbs		\$4.00/lb	\$ 65.72
Soup Bones	27.00 lbs (7 bags)		\$1.50/lb	\$ 40.50
Stew Meat (boneless)	7.92 lbs (5 pkgs)	2%	\$6.00/lb	\$ 47.52
Shank Meat	19.88 lbs (10 pkgs)	5%	\$4.50/lb	\$ 89.46
Short Ribs	26.22 lbs (10 pkgs)	6.6%	\$4.50/lb	\$ 117.99
Ground Beef	124.87 lbs (115 chubs)	31.6%	\$5.00/lb	\$ 624.35
London Broil (Top Round)	18.60 lbs (8 pieces)	4.7%	\$7.00/lb	\$ 130.20
Chuck Roast	48.41 lbs (12 pieces)	12.25%	\$4.50/lb	\$ 217.84
Shoulder Roasts (boneless)	12.35 lbs (4 pieces)	3.12%	\$6.00/lb	\$ 74.10
Sirloin Tip Roasts	14.50 lbs (4 pieces)	3.67%	\$8.00/lb	\$ 116.00
Bottom Round Roasts	19.04 lbs (6 pieces)	4.82%	\$7.00/lb	\$ 133.28
Eye Round Roasts	7.80 lbs (2 pieces)	1.97%	\$7.50/lb	\$ 58.50
Brisket	12.70 lbs (4 pieces)	3.21%	\$7.00/lb	\$ 88.90
Flank Steaks	2.39 lbs (2 pieces)	.006%	\$9.00/lb	\$ 21.51
Rib Steaks (bone in, 1 ½" thick)	23.16 lbs (16 pieces)	5.86%	\$14.00/lb	\$ 324.24
Sirloin Steaks (1" thick)	29.21 lbs (14 pieces)	7.39%	\$10.00/lb	\$ 292.10
T-Bone Steaks (1 ½" thick)	11.15 lbs (9 pieces)	2.82%	\$16.00/lb	\$ 178.40
Porterhouse Steaks (1 ½" thick)	<u>16.68 lbs (10 pieces)</u>	<u>4.22%</u>	\$17.00/lb	<u>\$ 283.56</u>
438.31 lbs saleable products 99.23% (394.88 lbs not counting OM &SB)				\$2,904.17

**438.31 lbs. (saleable products)**

**\$2,904.17 if all products sold at Farmers' Market**

## Comparison of Farmers' Markets Sales to Selling Whole & Half Carcasses Yield from a 708 lb. Carcass – Belted Galloway owned by Chris Harmon & Processed at Steiners Packing in Otego, New York

- A 708 lb carcass yields 394.88 lbs of meat (no soup bones, no organ meats) = 55.77% yield
- Paid \$60 for the kill and \$.79/lb for cryovacking the packages  
Total processing cost **\$619.32** (708 x \$.79 = \$559.32 + \$60 = \$619.32)
- Paid \$60 for the kill and \$.54/lb for butcher paper wrapping the packages  
Total processing cost **\$442.32** (708 x \$.54 = \$382.32 + \$60 = \$442.32)
- Hauling of animal to the slaughterhouse = **\$40.00**
- These are Farmers' Market prices and to sell a whole beeper took about two weeks of farmers' markets – Three markets/week, (6 hours, 3.5 hours, and 3 hours = 12.5 hours + 6 hours for set up and take down (2 hours/market) = 18.5 hours @ \$15.00/hour = **\$277.50 x 2 = \$555.00**
- Round trip travel to markets from farm (26 miles, 160 miles, 180 miles = 366 miles x .50/mile (fuel, wear and tear on my vehicle) = **\$183** + my travel time (1 hour, 3 hours, 4 hours = 8 hours x \$15.00/hour = \$120 so \$183 + \$120 = \$303 x 2 = **\$606**

**Total costs for hauling and processing = \$619.32 + \$40 = \$659.32**

**Total costs for selling in farmers' markets over two weeks = \$606**

**Total costs for processing and marketing = \$1,265.32**

**Total cost for producing the steer over two years = \$900**

**Total costs for production, processing and marketing = \$2,165.32**

**TOTAL NET PROFIT = \$2,904.17 - \$2,165.32 = \$738.85**

*Assumptions: All meat will be sold at two weeks of farmers' markets (3 markets)*

## Comparison of Farmers' Markets Sales to Selling Whole & Half Carcasses Selling this Animal as a Whole Animal, or by the Side or Quarter in New York

The customer in my case also pays for the slaughter and processing fee. Most of the time they will pick up the product at the slaughterhouse unless the customer lives downstate.

Another option is to have a distributor drop the meat at the customers residence or business for a flat freight rate. I sell beefers for \$2.50/lb hanging weight for my customers (individuals, CSA's, restaurants, etc).

**708 lb carcass x 2.50/lb = \$1,770**

**Production costs and hauling cost to processor = \$940**

**Customer pays for processing (\$619.32 cryovac) and necessary freighting (\$100) = \$719.32**

**Customer pays for processing (\$442.32 paper) and necessary freighting (\$100) = \$542.32 plus my charge of \$1,770.**

**So the customer pays a total of \$2,489.32 (\$1,770 + \$619.32 + \$100) cryovac**

**\$2,489.32/438.31 lbs = \$5.68/lb for cryovacked packaging**

**Or the customer pays a total of \$2,312.32 (\$1,770 + \$442.32 + \$100) paper**

**\$2,312.32/438.31lbs = \$5.27/lb for butcher paper packaging**

**TOTAL NET PROFIT = \$1,770 - \$940 = \$830**

***Without going to the markets & the travel I make almost \$100 more on my net profit!***



## Comparison of Farmers' Markets Sales to Selling Whole & Half Carcasses Customer Point of View

### Let's Look at the Customer Point of View:

- If they bought a beeper by purchasing all of the products at the Farmers' Market they would pay \$2,904.17.
- $\$2,904.17 / 438.31 \text{ lbs} = \mathbf{\$6.62/lb}$  is what the customer pays per lb at Farmers' Market.
- $\$2,489.32 / 438.31 \text{ lbs} = \mathbf{\$5.67/lb}$  is what the customer pays per lb for whole carcass
- So if the customer buys a half or a whole carcass in cryovac packaging **they save \$.95/lb.** (*If the customer buys a half or a whole carcass in butcher paper they save \$1.35/lb!*) And these farmers' market prices are very conservative from when I used to sell in markets (2007). Many farmers prices are now \$6.00 - \$7.00/lb for ground beef.
- For me to make a decent living of \$40,000/year I would need to sell 48 beefers per year via by the side or whole animal.
- For me to make a decent living of \$40,000/year via farmers' markets I would need to sell 54 beefers per year and spend a lot more time doing it. Considering that most farmers' markets in the Northeast have a 26 week season and if it takes me two weeks to sell an entire beeper at the three markets I attended, I would only be able to sell 13 beefers/year. So, I would need to attend at least 12 markets per week to do this or find better markets, probably downstate.

## Dollars Saved by Keeping Farms from being Developed

Farms require fewer community services than residential development and help maintain lower property taxes. Numerous “cost of community services” studies, primarily affiliated with the American Farmland Trust, have indicated that farms generate more in property tax revenue than they cost in services. As often noted, “cows don’t go to school” and over 65% of every property tax dollar in New York State is for local public schools. Based on conservative estimates, for every dollar paid in taxes in New York State, residential areas require \$1.11 in public services, compared to only \$0.33 in services required by farms. In other words, the revenue to cost ratio is 3.0 for agriculture compared with 0.9 for residential areas.

*AEM Tier 2 Worksheet on Agriculture and the Community, NYS Agricultural Environmental Management Program, and “Is Farmland Protection a Community Investment?” How to do a Cost of Community Services Study”, American Farmland Trust, Spring 1993*

# CADE

Center for  
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## Thank you!

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