Southern Tier Agriculture: A Regional Economic Resource and a Landscape In Transition

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Southern Tier Agriculture: A Regional Economic Resource and a Landscape In Transition

- The purpose of this educational material is to help inform discussions of ag-based economic development opportunities/options at the regional level
- More consideration of development options at regional scale may help set the stage for evaluation of development strategies and assembly of necessary stakeholder input
Introduction
Agriculture: An Economic Sector and a Land Use That Defines Our Rural Places

• As an economic sector, agriculture faces:
  – A stagnant state and regional economy
  – The downward price pressures of globalization
  – Possible unexploited opportunities to boost performance in agricultural sub-sectors and related industries
    • In forward linkage sectors, such as food processing and retail and wholesale sales sectors
    • In backward linkage sectors, such as financial, insurance and real estate as well as automotive sales, petroleum products and agricultural chemicals
    • In agricultural services
    • In consumer-oriented or “backyard” agriculture

Bills, Cail and Roth 2005
Agriculture: An Economic Sector and a Land Use That Defines Our Rural Places

• As a land use, agriculture faces:
  – "Environmental" considerations
    • Community character, rural atmosphere are established by the working farms in the rural landscape
    • Working landscapes in residential rural areas are prized for their aesthetic appeal, but may not be maintained or paid for by those who may want to preserve them
    • More exacting environmental regulations which can generate different management of crop and livestock production
  - Development pressure that raises land values, assessments, and farm property taxes
Agriculture: An Economic Sector and a Land Use That Defines Our Rural Places

- Many agricultural development questions have a strong regional dimension, because entire rural regions are characterized (both in land use and in economic activity) by the types of farming that have been practiced there
  - Development issues for farm and food rarely follow county lines
  - Scale considerations often dictate regional economic development strategies
- Community and economic development programs operate at both a county and regional level for rural areas
- Pursuing transitional agricultural enterprises may be most successful where a critical mass of farm entrepreneurs work together to make changes

Bills, Cail and Roth 2005
Our Definition of “Southern Tier” is Empire State Development’s 9-County Region

Counties:
- Broome
- Chemung
- Chenango
- Delaware
- Otsego

- Schuyler
- Steuben
- Tioga
- Tompkins

Bills, Cail and Roth 2005
Socioeconomic Trends
Land area in the S. Tier: 4.8 million acres (7,175 sq. miles) and about 16% of the New York State total

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
Land area in the S. Tier—3 million acres (675 sq. miles) and over

• The region includes 3 counties designated as Metropolitan Statistical Areas (MSA) around three cities: Binghamton, Elmira, and Ithaca
• Because of moderate but persistent population increases in and around the City of Ithaca, Tompkins County achieved MSA status in December 2003
• While these 3 cities and their environs have the highest population densities in the Southern Tier, the more rural counties make up the bulk of the land mass of the Region

Source: 2002 Census of Agriculture
Total population in the Southern Tier

Source: BEA-REIS

Bills, Cail and Roth 2005
Household Income in the Southern Tier: Distributed Across a Wide Spectrum

No. S. Tier households

Source: IMPLAN

Bills, Cail and Roth 2005
Southern Tier Demographics

- Fueled by out-migration, Upstate New York has grown much more slowly than Downstate over the last twenty years—3.5%, as compared to 10.9% for Downstate… the US population increased by more than 24% between the 1980 and 2000.

The Regional Farm and Food Economy
The Role of Farm and Food Production in the Region

- Farm and food production is a mainstay in the Southern Tier economy and a dominant feature of the rural landscape
- We seek to measure and document the economic contributions of those industries, and to highlight important trends, such as:
  - Number of farm businesses
  - Economic activity down the value chain, in agricultural services, food processing, wood manufacturing, wholesaling and retailing

*Bills, Cail and Roth 2005*
Sizing the Southern Tier Farm and Food Sector(s)

• There is no single unit of measure for farm and food economic output; four are commonly used by academics and practitioners alike:
  – Number of establishments-employers and non-employers
  – Gross output
  – Value added
  – Employment

• There is no single working definition of the farm and food system; our list includes:
  – Farms
  – Agricultural and Forestry Services
  – Food Manufacturing
  – Wood Manufacturing
  – Allied Farm and Food Manufacturing
  – Food wholesaling and retailing
  – Eating and drinking establishments

Bills, Cail and Roth 2005
Defining Food and Agriculture: Value of Output by Industrial Sector, Southern Tier Counties, New York, 2000

Source: IMPLAN, 2000

Bills, Cail and Roth 2005
Defining Food and Agriculture: Value of Output by Industrial Sector, Southern Tier Counties, New York, 2000

• The terminology and organization of economic sectors used throughout this material follow methods used by Federal statistical agencies; their work, in turn, is regulated by the President’s Office of Management and Budget (OMB)

• The alternate definitions presented here, labeled A-G, are our suggestions on alternate ways to think about the scope of food and agricultural production in any single community, a region, or the Nation as a whole

Source: IMPLAN, 2000

Bills, Cail and Roth 2005
Defining Food and Agriculture: Value Added by Industrial Sector, Southern Tier Counties, New York, 2000

Source: IMPLAN, 2000

Bills, Cail and Roth 2005
Defining Food and Agriculture: Value Added by Industrial Sector, Southern Tier Counties, New York, 2000

- The term “value-added” is widely used by educators and development practitioners but understanding of the term can vary.
- Anyone who handles a product and then sells it is considered to be “adding value.”
- Value added is calculated by separating cash transactions between businesses (to eliminate double-counting) from total business revenue. The remainder is counted as value added and accrues to households in such categories as wages, salaries, and net business income.
- Unprofitable efforts to instigate new value added production can subtract from the total value of goods and services in a regional economy.

Source: IMPLAN, 2000

* Bills, Cail and Roth 2005
Defining Food and Agriculture: Employment by Industrial Sector, Southern Tier Counties, New York, 2000

Source: IMPLAN, 2000

Bills, Cail and Roth 2005
The term’s “employment” and, later in this discussion, “jobs”, deal with the very fundamentals of development but the data can be distracting. In this material, we use some very comprehensive definitions and measures of employment and job-making to take into account part-time/seasonal work and multiple job holding. These distinctions can lead to some double counting of labor force participants (for example, the farmer who drives a school bus is counted twice) but seem to be pivotal in many farm and food sectors because of the size and scope of the businesses that make up the industry.

Source: IMPLAN, 2000

Bills, Cail and Roth 2005
Jobs in the S. Tier, 2000

- Farm proprietors: 7,246
- Farm employees: 9,606
- Agricultural services: 3,051
- Nonfarm proprietors: 61,020
- Mining: 2,757
- Construction: 15,622
- Manufacturing: 63,020
- Transportation and public util.: 13,458
- Wholesale trade: 11,777
- Retail trade: 65,111
- Finance, insurance, real estate: 20,386
- Services: 131,902
- Federal govt.: 3,571
- State/local govt.: 55,009

Source: BEA-REIS
•Our output estimates, based on an IMPLAN region model, showcase several agricultural sub-sectors. These include landscape and horticultural products and services along with commodities for food products

•Unsurprisingly, Dairy Farm Products and Forage Crops (including corn harvested for silage) show the highest output, at more than $243 mil. for dairy and more than $138 mil. for forages, the Southern Tier’s largest crop sector.

•Other sectors with significant output include Cattle, Misc. Livestock, Feed Grains, Vegetables, Greenhouse and Nursery Products, and Forest Products

•Agricultural, Forestry and Fishery Services, and Landscape and Horticultural Services add yet another dimension to the overall farm and food picture.
Value of output in various Southern Tier agricultural subsectors, 2000

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Value (Mil.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy</td>
<td>243.575</td>
</tr>
<tr>
<td>Forage crops*</td>
<td>138.057</td>
</tr>
<tr>
<td>Greenhouse, Nursery, Landscaping</td>
<td>50.988</td>
</tr>
<tr>
<td>Fruits and Vegetables</td>
<td>30.312</td>
</tr>
<tr>
<td>Beef cattle</td>
<td>28.442</td>
</tr>
<tr>
<td>Agricultural Services</td>
<td>27.032</td>
</tr>
<tr>
<td>Feed and Food Grains</td>
<td>16.865</td>
</tr>
<tr>
<td>Other Livestock</td>
<td>15.051</td>
</tr>
<tr>
<td>Poultry and Eggs</td>
<td>8.933</td>
</tr>
<tr>
<td>All Other Agriculture</td>
<td>5.458</td>
</tr>
</tbody>
</table>

*Includes corn harvested for silage

Source: IMPLAN

Bills, Cail and Roth 2005
• Food processing and wood manufacturing dominate the Southern Tier farm and food scene in dollar output or value added terms.

• Some food processing sectors are located in the Southern Tier to capitalize on local markets and access to larger regional outlets; but others are connected by backward linkages to Southern Tier farm commodity production.

• The **Natural and Processed Cheese** sector stands out at with over $361 mil. In gross output, as well as the **Fluid Milk** sector at over $124 mil., and **Prepared Feeds** more than $92 mil. Specialty food items, such as **Pickles, Sauces and Salsas**, as well as **Condensed and Evaporated Milk** and **Meat Packing Plants** also have some significant output, according to IMPLAN model estimates.
Value of output in various food manufacturing subsectors, Southern Tier, 2000

- Cheese, Natural and Processed: $361,024
- Coffee, Chips, Snacks and Ice: $252,453
- Milk and Non-cheese Milk Products: $182,017
- Prepared Feeds: $92,144
- Meat Processing (incl. Pet Food): $63,745
- Pickles, Sauces, and Salad Dressings: $61,85
- Alcoholic Beverages: $32,805
- All Other Food Manufacturing: $21,206

Source: IMPLAN

Bills, Cail and Roth 2005
Some sub-sectors of food processing can reasonably be assumed to not include inputs from local agriculture. Most important in this category in the Southern Tier is **Potato Chips and Similar Snacks**. This large output can be accounted for primarily by the Frito-Lay plant in Binghamton. **Coffee and Ice Manufacturing**, although small in total output, are also almost assuredly not sourcing local agricultural produce as inputs.

*Bills, Cail and Roth 2005*
Farm businesses in the Southern Tier
Distribution of farms by commodity sales class, Southern Tier and New York State, 2002

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
Distribution of farms by commodity sales class, Southern Tier and New York State, 2002

- Our data follow the Federal definition of a farm: a place with annual production valued at $1,000 or more; for 2002, the USDA also included a substantial number of farms deemed to have the “potential” to produce $1,000 in annual sales.
- The $1,000 gross revenue threshold for defining a farm seems absurdly low to many observers, but this value is embedded in Federal data for all lines of economic activity; thus, a farm business is counted in the same way as a business enterprise where individuals, say, do consulting or sell consumer products on a part time basis.

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
Land Resources Are Being Used Differently Than They Were Just Five Years Ago

• To what extent does this shift in farm ownership/operation reflect the loss of “agriculture of the middle”?
• To what extent does the availability of surplus agricultural “plant and equipment” allow larger operators to farm land owned by others?
• What changes are we seeing in land use, as viewed from other sources of information?

Bills, Cail and Roth 2005
Number of farms, Southern Tier, 1997 and 2002

<table>
<thead>
<tr>
<th>County</th>
<th>% Change in Farms, 1997-2002</th>
<th>Number of Farms in 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broome</td>
<td>-6.2</td>
<td>588</td>
</tr>
<tr>
<td>Chemung</td>
<td>-1.7</td>
<td>427</td>
</tr>
<tr>
<td>Chenango</td>
<td>0.5</td>
<td>960</td>
</tr>
<tr>
<td>Delaware</td>
<td>-7.1</td>
<td>788</td>
</tr>
<tr>
<td>Otsego</td>
<td>1.1</td>
<td>1,028</td>
</tr>
<tr>
<td>Schuyler</td>
<td>4.4</td>
<td>1,501</td>
</tr>
<tr>
<td>Steuben</td>
<td>-1.2</td>
<td>604</td>
</tr>
<tr>
<td>Tioga</td>
<td>5.8</td>
<td>563</td>
</tr>
<tr>
<td>Tompkins</td>
<td>11.1</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
## Owned or rented land in farms, Southern Tier, 1997 and 2002

<table>
<thead>
<tr>
<th>County</th>
<th>% Change in farmland, 1997-2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broome</td>
<td>4.6</td>
</tr>
<tr>
<td>Chemung</td>
<td>2</td>
</tr>
<tr>
<td>Chenango</td>
<td>-3.9</td>
</tr>
<tr>
<td>Delaware</td>
<td>-2.1</td>
</tr>
<tr>
<td>Otsego</td>
<td>-5.8</td>
</tr>
<tr>
<td>Schuyler</td>
<td>-0.8</td>
</tr>
<tr>
<td>Steuben</td>
<td>0.5</td>
</tr>
<tr>
<td>Tioga</td>
<td>12.2</td>
</tr>
<tr>
<td>Tompkins</td>
<td>-1.6</td>
</tr>
</tbody>
</table>

### Farmland in 2002 (acres)

<table>
<thead>
<tr>
<th>County</th>
<th>Farmland in 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Broome</td>
<td>98,276</td>
</tr>
<tr>
<td>Chemung</td>
<td>69,183</td>
</tr>
<tr>
<td>Chenango</td>
<td>189,980</td>
</tr>
<tr>
<td>Delaware</td>
<td>191,537</td>
</tr>
<tr>
<td>Otsego</td>
<td>206,233</td>
</tr>
<tr>
<td>Schuyler</td>
<td>73,865</td>
</tr>
<tr>
<td>Steuben</td>
<td>373,294</td>
</tr>
<tr>
<td>Tioga</td>
<td>128,224</td>
</tr>
<tr>
<td>Tompkins</td>
<td>100,931</td>
</tr>
</tbody>
</table>

Source: 2002 Census of Agriculture

*Bills, Cail and Roth 2005*
Average farm size, 2002

Source: 2002 Census of Agriculture
Market value of all agricultural products sold, Southern Tier, 1997 and 2002

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
Per Acre Value of Farm Real Estate, Southern Tier, 1997 and 2002

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
Per Acre Value of Farm Real Estate, Southern Tier, 1997 and 2002

- For Census purposes, farm respondents are asked to report their estimate of the value of the farm real estate they own or operate through a lease or rental agreement.
- These estimates can vary dramatically from the values one would produce by following standard real property appraisal practices; Census farm value data should be interpreted with care, and mainly used to look at differences between counties.
- Census data on farmland values, therefore, cannot be directly compared to local, and often more authoritative, sources of information; the latter would include values assigned by professional appraisers or property assessors.

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
Net Cash Farm Income of Operations and Operators: Southern Tier, 2002

Farms reporting market sales and cash production expenses

- Broome: 73% gains, 27% losses
- Chemung: 72% gains, 28% losses
- Chenango: 51% gains, 49% losses
- Delaware: 50% gains, 50% losses
- Otsego: 60% gains, 40% losses
- Schuyler: 59% gains, 41% losses
- Steuben: 58% gains, 42% losses
- Tioga: 57% gains, 43% losses
- Tompkins: 60% gains, 40% losses

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
The term “net income” is widely used by business owners, educators and development practitioners but understanding of the term can vary.

The Ag Census asks farmers to report all commodity sales and a limited amount of service income; respondents also report on their cash or checkbook expenses for hired farm labor and other purchased production inputs, including land charges for rental or property taxes on owned farm parcels.

All Census-reported income minus checkbook expense is considered to be “net cash farm income” in this data base.

This calculation is a useful reference point for thinking about farm profitability in a general way but is unsatisfactory for numerous other purposes, such as tax preparation, applying for a loan, or reporting to business partners or stockholders.

Source: 2002 Census of Agriculture

Bills, Cail and Roth 2005
Gross farm income in the Southern Tier, 1992-2002

Source: BEA-REIS

Bills, Cail and Roth 2005
Gross farm income in the Southern Tier, 1992-2002

- Gross farm income includes income from all farming operations, including all sales of crops, livestock, poultry, and their products.
- Some farm operators are growing their businesses by adding additional enterprises allied with agricultural commodity production, such as transportation services, food processing and/or retailing. However, these added-value enterprises, for the most part, are outside the scope of Federal statistics on farming.
- Considering commodity sales only, livestock and livestock products make up a larger share of gross farm income in the Southern Tier.

Source: BEA-REIS

Bills, Cail and Roth 2005
Farm income in the Southern Tier, 2001

Cash receipts: livestock and products  Government payments  Imputed and miscellaneous income  Cash receipts: crops

S. Tier
New York
Broome
Chemung
Chenango
Delaware
Otsego
Schuyler
Steuben
Tioga
Tompkins

Source: BEA-REIS

Bills, Cail and Roth 2005
Where gross farm income went in the Southern Tier in 2002

Non-labor production expense: $372,679
Total value of inventory change: $12,352
Net income of corporate farms: $4,902
Net farm proprietors' income: $19,455
Farm employees' income**: $46,135

**Includes wages, salaries and benefits paid to hired farm workers

Source: BEA-REIS

Bills, Cail and Roth 2005
Sources of income for households reporting farm operations, New York, 1999

- Federal farm program payments: 4%
- Net cash farm income: 20%
- Farm-related income: 5%
- Total off-farm family income: 71%

Source: Unpublished USDA survey data reported by Deborah Streeter and Nelson Bills, 2003

Bills, Cail and Roth 2005
Changes in land use, with emphasis on movements of land between developed and open space uses

Bills, Cail and Roth 2005
Land use in the Southern Tier

• Overview
  – What relation does changing agricultural practice have to rural land use?
  – What opportunities, and what threats, does the continuing increase in agricultural productivity per acre represent?

• Land conversions
  – Movements of land out of crop and pasture use
  – Commodity agriculture and “backyard” or consumer-based agriculture, and service-based agriculture, such as many equine farms and agritourism enterprises
  – Urban, suburban, and exurban land development

Bills, Cail and Roth 2005
Graphic from “Sprawl Without Growth: The Upstate Paradox” by Rolf Pendall (Brookings Institution, October 2003) Data are from USDA Natural Resources Inventory

Figure 2. Agriculture declines, urban and forest land increase in Upstate, 1982–97
Major land uses, New York, 1945-1997

Source: Vesterby and Krupa
• All along the Eastern Seaboard, changes in size and number of farms combined with shifts in population settlement patterns, make assigning land to use categories more art than science
• The problem is especially acute in New York because no state agency is expressly charged with monitoring land use on even a periodic basis
• This USDA data series helps fill that vacuum by building on Census definitions of a farm and, on the other extreme, Census definitions of urban territory; these definitions are conservative with the former eliminating hundreds of equine farms with no commodity sales. The Census “urban” definition ignores the persistent pattern of land conversions due to rural settlement, often along roadways outside of densely settled territory in or adjacent to core cities

Source: Vesterby and Krupa
We aggregated a very detailed land classification system local assessors use for farmland, as prescribed by the NYS Office of Property Services (ORPS).

**Property Classifications**

- Agricultural, General
- Agricultural, Vacant
- Livestock, Livestock Products (Non Dairy)
- Dairy Products
- Honey and Beeswax
- Field Crops
- Truck Crops
- Orchard, Small Fruit Crops and Vinryards
- Nursery and Greenhouse
- Specialty Farms
Local assessor's judgments on farmland, when mapped, shed more light on the land use mosaic.

Map created by Lisa Snopkoski

Bills, Cail and Roth 2005
Local assessor's judgments on farmland, when mapped, shed more light on the land use mosaic. These maps were produced using the tax assessment rolls of the various towns. While these tax rolls are reasonably accurate and up-to-date, there may be some properties that have changed use since they were assessed, or that were initially recorded inaccurately by the assessor. Additionally, while the codes for assessing the land use category are uniform across New York State, there may be some variation in how the individual townships apply these codes. For that reason, these maps should be understood as a general picture of agricultural land uses, not a definitive catalog of individual parcel's current use.
Linkages

• Forward linkages-who buys what we sell?
  – Sales in the Southern Tier
  – Shipments to buyers elsewhere in New York State or to national, and international markets

• Backward linkages-when production expands (or contracts), what difference does it make?
  – Structural interdependence
  – Economic multipliers
    • Farm commodities
    • Ag Services
    • Food manufacturing
Output multipliers for selected livestock sectors, S. Tier, 2000

Multiplier effect of a $1.00 increase in product demand

- Dairy: $1.43
- Poultry and Eggs: $1.38
- Beef Cattle: $1.52
- Sheep, Lambs and Goats: $1.54
- Hogs, Pigs and Swine: $1.38
- Agricultural Services: $1.53

Source: IMPLAN

Bills, Cail and Roth 2005
Output multipliers for selected crop sectors, S. Tier, 2000

- **Fruits**: $1.53
- **Vegetables**: $1.55
- **Oil Bearing Crops**: $1.43
- **Forest Products**: $1.47
- **Greenhouse/Nursery Products**: $1.45
- **Landscape/Horticultural Services**: $1.48

Multiplier effect of a $1.00 increase in product demand

Source: IMPLAN

*Bills, Cail and Roth 2005*
Output multipliers for selected food manufacturing sectors, S. Tier, 2000

Source: IMPLAN

Multiplier effect of a $1.00 increase in product demand

Meat Packing $1.69
Poultry Processing $1.58
Cheese $1.79
Evaporated Milk $1.57
Ice Cream and Frozen Desserts $1.76
Fluid Milk $1.74
Canned Fruits and Vegetables $1.40
Pickles, Sauces, and Salad Dressing $1.50
Blended and Prepared Flour $1.59
Pet Food $1.43
Prepared Animal Feeds $1.52
Bread, Cake Products $1.52
Cookies and Crackers $1.52
Confectionery Products $1.52
Animal Fats and Oils $1.39
Malt Beverages $1.40
Wine and Spirits $1.62
Soft Drinks & Water $1.51
Roasted Coffee $1.58
Potato Chips & Snacks $1.40
Manufactured Ice $1.64

Source: IMPLAN

Bills, Cail and Roth 2005
Case Studies: Purpose

• How do regional trends impact farms?
• How farmers respond to the stagnant economy?
• What strategies do farmers use to grow their businesses?
Case Studies: Purpose

- How do regional trends impact farms?
- How do farmers respond to the stagnant economy?
- What strategies do farmers use to grow their businesses?

Another key component of this project was to interview farmers to learn about strategies they use for survival in a stagnant farm and regional economy.

Bills, Cail and Roth 2005
Case studies: information gathered

- Business Background
- Business Evolution
- Changes/Investments (10-15 yrs)
- Resulting Impact of Investments
  - on the farm’s future
  - in the local economy/community
  - on the environment/landscape
  - for consumers

Bills, Cail and Roth 2005
Case studies: information gathered

- Business Background
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  - on the environment/landscape
  - for consumers

A total of 7 farms were interviewed
2 farms are singled out for illustrative purposes
Together, we think that these farm level analyses support generalizations that apply to many other farms in the Southern Tier

Bills, Cail and Roth 2005
AA DAIRY
Business Evolution

• Father started farming in 1941
• Son Bob bought out father in 1971: 450 acres-160 cows, expanded herd to 200 cows
• Bob formed partnership with 2 sons in 1993 - built new dairy facility 550 cows, purchased additional land – own 2,000 acres total (1,300 tillable)
• New enterprises – methane digester for generating electricity and composting
• Other Enterprises – beef, timber
AA DAIRY

Bills, Cail and Roth 2005

Father started farming in 1941
Son Bob bought out father in 1971:
450 acres-160 cows, expanded herd to 200 cows
Bob formed partnership with 2 sons in 1993 - built new dairy facility 550 cows, purchased additional land – own 2,000 acres total (1,300 tillable)
New enterprises - methane digester for generating electricity and composting
Other Enterprises – beef, timber

This dairy farm has been expanding steadily since 1941 to keep pace with changes in the farm economy
In 1993, AA Dairy undertook a 1.5 million dollar expansion to cut costs, increase income for family members, and reduce environmental impacts
Family living expenses were not dependent upon farming and other farm enterprises helped with cash flow management.
KINGBIRD FARM
Business Evolution

- Purchased farm outright - 1996
- Transitioned from a full-time off farm to part time off farm income - 2001
- Diversified: pastured poultry, eggs, hogs, greenhouse herbs-fresh & dried
- Direct to consumer sales strategy
- Feed sales

Bills, Cail and Roth 2005
**KINGBIRD FARM**

Business Evolution

- Purchased farm outright - 1996
- Transitioned from full-time off farm to part-time off farm income - 2001
- Diversified: pastured poultry, eggs, hogs, greenhouse herbs - fresh & dried
- Direct to consumer sales strategy
- Feed sales

- Personal funds and off farm income were used to start this enterprise
- Direct sales and diversification have helped this business grow 20% per year
- A year-round selling strategy has helped with cash flow, as does off-farm income

*Bills, Cail and Roth 2005*
Impact of Investments made by farmers

- On the farm business
- In the local economy
- On the Environment
- On open space – the working landscape
- In the community
- On consumers

Bills, Cail and Roth 2005
Impact of Investments made by farmers

• Traditional economic measures like jobs created have limited relevance to farms
• However, farms, contribute in other ways to the region’s rural character and economy
• An attempt to document these impacts was made during interviews
Impact of investments back to the farm business

- Increased farm income
- Reduced risk from diverse income sources
- Greater efficiency (savings)
- Reduction in operating costs
- Increased production output
- Payback on investment
- Increased net worth

Bills, Cail and Roth 2005
Impact of investments back to the farm business

- Increased farm income
- Reduced risk from diverse income sources
- Greater efficiency (savings)
- Reduction in operating costs
- Increased production output
- Payback on investment
- Increased net worth

Example:
- The digester at AA Dairy has resulted in $25,000 per year savings in electricity costs
- And, the farm generates approximately $15,000-20,000 income from compost
- This additional income has helped maintain cash flow and pay down the debt
Impact of investments on the local economy

- More farm jobs (new jobs, jobs retained)
- Off farm jobs resulting from investment (new farm construction, equipment, services, etc.)
- Dollars circulating in the economy
- Inflow of outside cash - new money brought into the local economy
- Increase in assessed value of property
- Contribution to tax base

Bills, Cail and Roth 2005
Impact of investments on the local economy

- More farm jobs (new jobs, jobs retained)
- Off farm jobs resulting from investment (new farm construction, equipment, services, etc.)
- Dollars circulating in the economy
- Inflow of outside cash - new money brought into the local economy
- Increase in assessed value of property
- Contribution to tax base

Examples:
- AA Dairy invested 1.5 mil in their new facility, transitioned from 8 to 15 jobs
- Kingbird farm was not able to obtain a mortgage from local banks so they used outside sources to purchase the farm bringing new money into the local economy
Impact of investments on the environment

- Investment in practices that protect water, air and soil quality
- Natural resource buffers and wildlife habitat
Impact of investments on the environment

- Investment in practices that protect water, air and soil quality
- Natural resource buffers and wildlife habitat

Example: AA Dairy invested in the manure digester because of their proximity to the village and concern about protecting air and water quality
Impact of investments on open space: the working landscape

- Underutilized land resources are returned to the working landscape
- Land stays in active farming
- Land purchased by a farmer reduces rural development/sprawl
- Protects open space

Bills, Cail and Roth 2005
Impact of investments on open space: the working landscape

• Underutilized land resources are returned to the working landscape
• Land stays in active farming
• Land purchased by a farmer reduces rural development/sprawl
• Protects open space

Example:
• Kingbird Farm revitalized an 80 acre abandoned farm. Investments in improving land and buildings have increased the value of the property and restored the working landscape
• AA Dairy owns 2,000 acres of land in part to buffer their farming operation from neighbors and in part for natural resource conservation
Impact of investments in the community

• Farmer involvement on community boards, committees, etc.
• Good will – neighborliness, farmers lend a helping hand
• Quality of life – maintain rural character
• Contribute to a renewed interest in farming among rural landowners
• Leadership role in the farm community
• Mentor for beginning farmers
• Innovators in business

Bills, Cail and Roth 2005
Impact of investments in the community

- Farmer involvement on community boards, committees, etc.
- Good will – neighborliness, farmers lending a helping hand
- Quality of life – maintaining rural character
- Contributing to a renewed interest in farming among rural landowners
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- Innovators in business

While these contributions are harder to measure, farmers contribute to their community in a variety of ways from leadership roles with local government, community groups and farm organizations to providing services for neighbors like snowplowing and as mentors for other farmers

Bills, Cail and Roth 2005
Impact of investments on local consumers

- Access to unique local products
- Value high quality, fresh products
- Sense of food safety, security, and choice
- Like supporting local farmers
- Develop a personal relationship with producers
- Increase agriculture awareness-literacy
- Help keep land in farms

Bills, Cail and Roth 2005
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Consumers increasingly value the opportunity to purchase foods from local sources and understand the contributions farms make to open space and the working landscape.

Bills, Cail and Roth 2005
Strategies for Business Growth

Bills, Cail and Roth 2005
Another purpose of the case studies was to identify the strategies used by farmers to grow their businesses.
Start–up farm business growth strategies

• INVESTMENT RESOURCES
  – Personal Savings
  – Family Sources
  – Mortgage/Loans
  – NRCS/SWCD programs
  – Reinvest Earnings
  – Off farm Income
Start–up farm business growth strategies

- **INVESTMENT RESOURCES**
  - Personal Savings
  - Family Sources
  - Mortgage/Loans
  - NRCS/SWCD programs
  - Reinvest Earnings
  - Off farm Income

  • Beginning farmers like Kingbird Farm rely on personal and family resources to get started
  • Off farm income is critical
  • Most reinvest earnings to grow their enterprises
  • Government programs provide funding for land improvements

*Bills, Cail and Roth 2005*
Start–up farm business growth strategies

• IMPACT OF INVESTMENTS
  – Bring in outside capital-new money
  – Purchase services/supplies locally
  – Soil/water quality improvements
  – Farmland-facilities put back into use
  – Stimulate interest in farming enterprises
  – Local farm and food products
  – Jobs for family - lifestyle

Bills, Cail and Roth 2005
Start–up farm business growth strategies

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Kingbird Farm contributions:
  • New money from both personal and government sources and grants
  • Farm improvements have increased the value of facilities and land
  • Value of property increased but exemptions on farmland and new farm buildings help offset increase in property taxes
  • Consumers benefit from local source of organic/pasture raised meats
  • Jobs: 1 part time job, while 2 family members employed full-time
  • New enterprise as a feed dealer for organic grain serves other farmers

Bills, Cail and Roth 2005
Growth Strategies for Established Farms

• **INVESTMENT RESOURCES**
  – Refinance via farm lenders
  – Government grants/incentives

• **ONGOING SUPPORT**
  – Reinvest
  – Govt. programs
  – Off-farm income
Growth Strategies for Established Farms

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  – Refinance via farm lenders
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• ONGOING SUPPORT
  – Reinvest
  – Govt. programs
  – Off-farm income

AA Dairy Example:
• Government programs provided incentive for making a large investment in the farm
• The majority of the project was financed by Farm Credit

Bills, Cail and Roth 2005
Growth Strategies for Established Farms

IMPACT OF INVESTMENTS
- Short-run debt/long-run survival?
- Asset building, Increase net worth
- Some new jobs (on-farm, local labor)
- Land stays in farming
- Environmental stewardship
- Leadership roles in the community
- Products/services for local residents

Bills, Cail and Roth 2005
Growth Strategies for Established Farms

IMPACT OF INVESTMENTS

- Short-run debt/long-run survival?
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AA Dairy contributions:
- $1.5 million invested
- Additional income: $15,000 per year from compost; $25,000 per year energy savings
- Timber and beef sales also generate cash
- Increased future farm viability for next generation
- Jobs: 15 at first, now 12 (due to reduced cash flow)
- Improved manure handling-reduced environmental impact
- Family members active in the community
- Produce compost for local use-sales to organic farmers and landscapers

Bills, Cail and Roth 2005
Bottom Line

• Each farm is unique in how it contributes to the economy and region’s rural character
• Investment by large farms is motivated by need to maintain income and lower costs
• Investment by small farms is fueled by consumer interest – demographics and the regional economy may pose limitations
Bottom Line

• Each farm is unique in how it contributes to the economy and region's rural character.

• Investment by large farms is motivated by the need to maintain income and lower costs.

• Investment by small farms is fueled by consumer interest in local foods. Demographics and the regional economy may pose limitations.

The growth strategies of larger farms have more to do with the farm economy while smaller farms are impacted both by the farm economy and regional economy depending on their enterprise.

Bills, Cail, and Roth 2005
Strategies that Position Farms for Survival

• Must fit with the overall business vision
• Must respond to a need (business or consumer)
• Must be outcome focused – clear goals
• Must be built on sound information
• Must be managed to perform over time
• Added costs must add more revenue
• Must include diverse income streams

Bills, Cail and Roth 2005
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