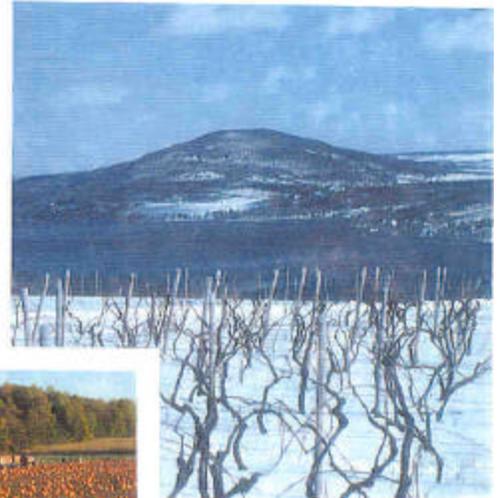
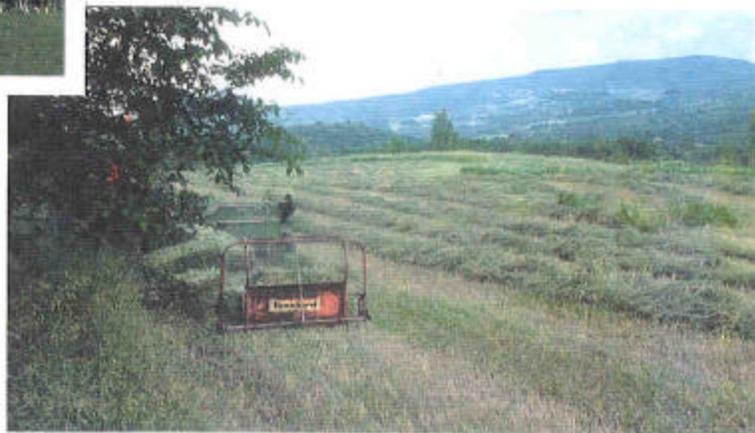
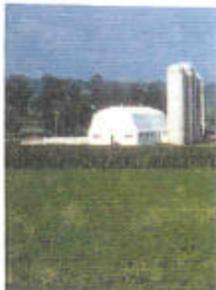


Ontario County Agricultural Enhancement Plan



September 2000



From an adaptation by Francis Hole, in *Songs of the Soil*, which echo the emphasis of Aldo Leopold on landscape community (date unknown).

*'Tis a gift to have soil;
'Tis a gift to have land;
'Tis a gift to belong to the place whereon we stand;
And if we are contented with the work that we are doing,
We've discovered a community that's energy renewing
When true community is gained,
To bow and to bend we shall not be ashamed;
To turn and to turn will be our delight,
Till by turning, turning we come 'round right.*

ACKNOWLEDGEMENTS

The *Ontario County Agricultural Enhancement Plan* was developed for Ontario County and its Agricultural Enhancement Board by Cornell Cooperative Extension of Ontario County and the Ontario County Planning Department.

WITH FINANCIAL SUPPORT FROM:

New York State Department of Agriculture and Markets
Ontario County Board of Supervisors

RESEARCH BY:

Kathy Barrett, Cornell Cooperative Extension

CONTRIBUTIONS BY:

Kathy Barrett, Cornell Cooperative Extension
Nelson Bills, Cornell University
Thomas Harvey, Ontario County Planning Department
Steve Lewandowski, Ontario Co. Soil & Water Conservation District
Tom Nally, Cornell Cooperative Extension
Ernie Paskey, Ontario County Planning Department
Kevin Shultz, Ontario County Planning Department
Robert Stryker, Ontario Co. Soil & Water Conservation District
NYS Department of Environmental Conservation
NY Farm Bureau

EDITED BY:

Tim Pezzolesi, Cornell Cooperative Extension of Ontario County
Maria Rudzinski, AICP, Ontario County Planning Department

REVIEWED BY:

Steven Finn, Ontario County Planning Department

ONTARIO COUNTY AGRICULTURAL ENHANCEMENT BOARD:

Chair: Norbert Amberg, farmer
Eric Amberg, Ontario Co. Soil & Water Conservation District board
Robert Gerlock, farmer
John Lincoln, farmer
Rich Jerome, farmer
Donald Jensen, Ontario County Board of Supervisors
Lloyd Kinnear, farmer
Tim Pezzolesi, Cornell Cooperative Extension of Ontario County
Maria Rudzinski, AICP, Ontario County Planning Department
John Uveges, AgriSeed
Linda Yancey, Ontario Co. Real Property Tax Services

COVER PHOTOS BY:

William Banaszewski
Pauline Burnes
John Whitney

TABLE OF CONTENTS

Table of Contents..... iii

Preface..... vi

Executive Summary..... vii

SECTION I INTRODUCTION

Purpose and Background..... 1

Benefits of Agriculture to Ontario County..... 1

What is Agriculture in Ontario County?..... 1

 Traditional Products..... 2

 Specialty Items..... 2

 Tourism/Recreational Aspects..... 2

SECTION II OVERVIEW OF AGRICULTURE IN ONTARIO COUNTY

Physical Characteristics..... 3

 Location/Geography..... 3

 Climate..... 3

 Soils..... 4

 Water Resources..... 5

National/Global Food Supply Perspective..... 6

Agriculture and Environmental Quality..... 6

 Agricultural Environmental Management..... 7

 Canandaigua Lake Watershed AEM..... 8

 Other AEM Programs in Ontario County..... 8

 Integrated Pest Management..... 8

9	Rotational Grazing.....	
9	Rural/Urban Interface.....	
	Major Farm Sectors.....	10
10	Dairy Industry	
10	Field Crop Industry.....	
11	Livestock Industry.....	
12	Fruit Industry.....	
13	Vegetable Industry.....	
	Nursery and Greenhouse Industry.....	14
 SECTION III AGRICULTURE AND THE ONTARIO COUNTY ECONOMY		
15	Background.....	
	Overall Value and Impact of the Agriculture Industry.....	15
	Value of Individual Farm Operations.....	15
	Cost of Farmland Development.....	16
	Support Businesses.....	16
 SECTION IV DEVELOPMENT AND LAND USE TRENDS/ISSUES		
	About the Data.....	18
	Ontario County's Farmland Resource.....	18
	Agricultural Districts.....	19
	Agricultural Conservation Easements.....	20
	Regional and Town Agricultural Land Use Profile.....	21
	Western Ontario County.....	21
	<i>(Towns of Bristol, Canadice, Canandaigua, East Bloomfield, Naples, Richmond, South Bristol and West Bloomfield; City of Canandaigua; Villages of Bloomfield and Naples)</i>	
	Northern Ontario County.....	25
	<i>(Towns of Victor, Farmington, Manchester, and Phelps; Villages of Victor, Manchester, Shortsville, Clifton Springs, and Phelps)</i>	
	Eastern Ontario County.....	28
	<i>(Towns of Hopewell, Gorham, Seneca and Geneva)</i>	
 SECTION V CHALLENGES FACING ONTARIO COUNTY AGRICULTURE.....		
31		
	Local/State Pressures.....	31
	Maintenance of Critical Mass.....	31

31	Profitability.....	
	Property Taxes.....	31
	Regulations.....	32
	Economic Policies/Growth Initiatives.....	32
	Lack of Community Awareness.....	32
	Land Use Policies.....	32
	Land Use Decisions.....	33
	Non-farm Development.....	33
	Extension of Public Utilities.....	33
	Local Government Funding Options.....	33
	Lack of Available Workforce.....	33
	Estate Taxes.....	34
	Wildlife Damage.....	
34	Limited Recognition for Change.....	34
	National/Global Pressures.....	34
	Economies of Scale.....	34
	Seasonality and Competition.....	34
	Federal Food Policies.....	34
	Disincentives for Farming.....	
35		
	SECTION VI OPPORTUNITIES FOR ONTARIO COUNTY AGRICULTURE.....	
36		
	Tourism.....	36
	Markets.....	36
	Diversity.....	
36		
	Small Scale Food Processing.....	36
	Food Venture Center.....	36
	Cooperatives.....	37
	Wine Industry.....	37
	SECTION VII GOALS FOR ENHANCING AGRICULTURE IN ONTARIO COUNTY.....	
38		
	SECTION VIII RECOMMENDATIIONS.....	
39		
	LIST OF MAPS	
	Agricultural Districts.....	
50		
	Town of Bristol.....	
51		
	Town of Canadice.....	52
	Town of Canandaigua.....	53
	Town of East Bloomfield.....	54

Town of Naples.....	55
Town of Richmond.....	56
Town of South Bristol.....	57
Town of West Bloomfield.....	58
Town of Victor.....	59
Town of Farmington.....	60
Town of Manchester.....	61
Town of Phelps.....	62
Towns of Hopewell.....	63
Town of Gorham.....	64
Town of Seneca.....	65
Town of Geneva.....	66

LIST OF TABLES

Table 1. Important Farmland Soils of Ontario County.....	4
Table 2. Summary Information of Agriculture Sectors in Ontario County, 1997.....	10
Table 3. Growth of Ontario County Nursery and Greenhouse Industry between 1992-1997.....	14
Table 4. Profile of Agricultural Land in Ontario County.....	19
Table 5. Profile of Agricultural Land in Western Ontario County Farms.....	21
Table 6. Profile of Agricultural Land in Northern Ontario County Towns....	25
Table 7. Profile of Agricultural Land in Eastern Ontario County Towns.....	28

REFERENCES.....	45
------------------------	-----------

GLOSSARY OF TERMS.....	47
-------------------------------	-----------

LIST OF ACRONYMS.....	49
------------------------------	-----------

APPENDIX A – AGRICULTURAL DISTRICTS MAP	50
--	-----------

APPENDIX B – TOWN MAPS.....	51
------------------------------------	-----------

PREFACE

Agriculture is an integral component of Ontario County's economic diversity and overall well-being. In addition, farms provide valuable scenic open space, recreational and tourist opportunities, food and habitat for wildlife, and add to the overall quality of life for employers and residents.

At the same time, agriculture faces considerable challenges and obstacles. For this reason, Ontario County enlisted the services of Cornell Cooperative Extension to prepare an *Agricultural Enhancement Plan for Ontario County*, funded by the New York State Department of Agriculture and Markets and the County.

The *Agricultural Enhancement Plan for Ontario County* identifies trends, as well as specific obstacles and opportunities, facing agriculture. Descriptions of the dairy, livestock, vegetable, orchard, grape, greenhouse, and ornamental horticulture segments of the agriculture industry are presented. More importantly, conclusions and recommendations for enhancing agricultural businesses and fostering new opportunities are suggested (see *Sections VI and VII*).

The goals described in this report were developed with input from farmers, agribusinesses, agencies, and the general community. One clear overlying message was heard time after time -- **a multi-faceted, community-wide approach is essential for protecting agriculture and farmland in Ontario County. No single activity will provide the answer.**

Because a cooperative effort amongst farmers, agribusiness, local and county governments, agencies and other organizations is necessary to implement this plan, the Agriculture Enhancement Board recognizes that it will play an important role in providing direction and facilitating an overall collaborative strategy.

The Board will encourage the formation of a working group comprised of agency members, organizations, public officials and farm leaders to develop a detailed work plan, based on the various suggestions described in this plan.

In the end, this plan and its recommendations will provide the foundation for future agriculture preservation and enhancement efforts; however, it is simply a starting point.

*Norbert Amberg, Chairman
Ontario County Agriculture Enhancement Board*

EXECUTIVE SUMMARY

The purpose of this plan is to:

- 1) create general awareness for community leaders and the general public about the significance, challenges, and economic potential of agriculture in Ontario County;
- 2) identify agricultural resources in need of protection and present appropriate farmland protection techniques; and
- 3) present options to strengthen the economic vitality of agriculture and retain productive farmland.

A strong and sustainable agricultural industry provides many economic and quality of life benefits to residents and local communities, including:

- \$252 million annually to the local economy (based on 1997 data)
- thousands of full and part-time employment opportunities
- a net tax surplus for local economies
- recreational and tourism opportunities
- readily available produce that is locally grown and fresh
- protection of environmental quality and natural resources
- scenic open space and working landscapes
- food and habitat for wildlife
- quality of life/rural character that attracts other employers

The climate of Ontario County, as well as the soil and water resources it possesses, supports a very diverse agriculture industry. **In fact, there are few areas of the world that host the combination of agricultural resources (soil, fresh water, and favorable climate) that we do in Ontario County.** *Approximately 50% of Ontario County's land is classified as prime farmland.*

Agricultural producers in Ontario County are an important part of the national food system and compete *nationally and internationally* to supply U.S. consumers with milk and meat products, vegetables, fruits, cereal grains, and various other agriculture products.

Farmers play a significant role in protecting the health and sustainability of soil, water, and wildlife resources. To minimize the impact that farming practices may have on the environment, the agricultural community is continually adapting its management methods according to most current management practice recommendations, including use of agriculture environmental management programs, integrated pest management, and rotational grazing.

The soils and climate of Ontario County offer the opportunity for many types of farming and a diverse range of agricultural products. Dairy, horse, beef, sheep, poultry, swine, cash crops, vegetable, vineyards, orchards, small fruit, nursery and greenhouse farms all play a significant role in food and agriculture industry in Ontario County.

The **total sale of agricultural products in Ontario County was \$78 million in 1997.** Because each dollar generated by the agriculture industry is subsequently recirculated throughout the local economy, **the annual sale of agricultural products yields an annual impact of \$252 million to the local economy.**

The loss of one **100-cow dairy farm in central New York yields a loss to the County's gross product (total goods and services annually produced in the County) of \$796,356.** This is an annual loss unless the farm is restarted or leased in whole or in part. This translates to a **per cow economic loss to the County of \$7,964.** The **economic loss per acre of tillable land is \$2,719** (based on 297 acres of tillable land on a 455 acre farm).

According to Census of Agriculture statistics (1997), **agricultural producers in Ontario County support a wide range of businesses.** Ontario County farms spent \$10.3 million on feed, \$10.0 million on hired labor, \$7.7 million on commercial fertilizers and agricultural chemicals, \$5.5 million on maintenance, and \$3.3 million on petroleum products in 1997. Agricultural producers support the following businesses:

- Construction, plumbing and general contractors
- Feed/grain suppliers and consultants
- Insemination services
- Veterinarian services
- Milk/cheese manufacturing, bottling, distribution, etc.
- Business management services
- Crop consultants
- Machinery dealerships/repair shops
- Processing and marketing businesses
- Seed, fertilizer, pesticide suppliers
- Inspectors, packers, haulers, shippers

Many factors influence development and land use patterns in Ontario County. Among them are the physical characteristics of the environment, proximity to regional resources and markets, the economy and employment opportunities,

transportation and other infrastructure systems, government regulations, and community attitudes.

Approximately 76% of Ontario County (311,900 acres) is classified as prime, unique, or of statewide significant agricultural soils according to the U.S. Dept. of Agriculture, Natural Resource Conservation Service. In the last seven years alone, 15,776 acres of prime soils were converted to non-agricultural uses. That means that **of the 311,900 acres of important farmland in Ontario County, 61% (119,876 acres) have already been converted to other uses.**

The agriculture industry in Ontario County faces considerable challenges and obstacles as it evolves from a conventional system to a new form of agriculture, which is more consumer-oriented, regionally connected and specialized. As the County becomes more urbanized, both internal and external pressures can weaken the economic feasibility of farming. Current local, state, and national pressures include:

- Maintenance of a Critical Mass
- Profitability
- Property Taxes
- Regulations
- Economic Policies/Growth Initiatives
- Lack of Community Awareness
- Land Use Policies
- Non-Farm Development
- Extension of Public Utilities
- Lack of Available Workforce
- Estate Taxes
- Wildlife Damage
- Limited Recognition for Change
- Economies of Scale
- Seasonality and Competition
- Federal Food Policies

Although the agricultural industry of Ontario County faces considerable challenges as it strives to adapt to new economic, social, and environmental circumstances, **the County also has a number of characteristics, which provide advantages to create new opportunities.** Opportunities include:

- Agri-tourism
- Proximity to urban markets
- Diversity

-
- Small scale food processing
 - Food Venture Center
 - Cooperatives
 - Wine industry

The Ontario County Agriculture Enhancement Board believes that land use controls alone will not maintain the County's farmland and critical mass of its agricultural community. Economically strengthening agriculture enterprises, increasing public awareness about the importance of agriculture, and gaining supportive local public policies provide the most effective and affordable means to agriculture and sustain farmland.

Goal 1 -- Enhance agricultural economic development.

Goal 2 -- Increase the awareness of the economic and social importance of agriculture.

Goal 3 -- Examine and adjust local government policies to protect farmland and enhance agriculture.

Goal 4 -- Acknowledge and enhance the environmental stewardship of farmers.

It is suggested that the Ontario County Agriculture Enhancement Board (AEB) form **task groups to discuss, research, evaluate and prioritize** the feasibility of implementing the strategies presented in this report.

The task/working groups should include AEB members, representatives of organizations, government, businesses, and individuals in the community who are interested in supporting agriculture and protecting farmland.

Strategies for enhancing agricultural economic development include:

- Farm business planning and development
- Integrating agriculture in State and local economic development initiatives
- Marketing, promoting, and developing local agricultural products
- Estate planning and ownership transfer
- Developing agricultural workforce

Strategies for increasing the awareness of the economic and social importance of agriculture include:

- Educating non-farm public through programs and development of educational materials

Strategies for examining and adjusting local policies and actions include:

- Addressing infrastructure development
- Agricultural conservation easement/purchase of development rights initiatives
- Local government finance impacts
- Planning review and coordination
- County referral review process

Strategies for acknowledging and enhancing environmental stewardship of agricultural businesses include:

- Support and expand voluntary programs
- Expand the "Lake Friendly Farmer" program
- Conduct a public information and education campaign

INTRODUCTION

Purpose and Background

The purpose of this plan is threefold. By identifying current trends and conditions that impact the viability of agriculture and loss of farmland, the intent of this plan is to:

1. **Inform Ontario County government and create general awareness for community leaders and the general public** about:
 - the significance of agriculture
 - stresses on area farming from public policies, conditions within the agriculture industry, and the non-farm public
 - economic potential for expanded agricultural activity
2. **Identify agricultural resources in need of protection and present appropriate farmland protection techniques.**
3. **Present options to strengthen the economic vitality of agriculture and retain productive farmland.**

Benefits of Agriculture to Ontario County

Although most residents of Ontario County are largely unfamiliar with agricultural practices and concerns, we all benefit from having agriculture in Ontario County. A strong and sustainable agricultural industry provides many economic and quality of life benefits to residents and local communities, including:

- \$252 million annually to the local economy (based on 1997 data)
- thousands of full and part-time employment opportunities
- a net tax surplus for local economies
- recreational and tourism opportunities
- readily available produce that is locally grown and fresh
- protection of environmental quality and natural resources
- scenic open space and working landscapes
- food and habitat for wildlife
- quality of life/rural character that attracts other employers

What is Agriculture in Ontario County?

Although it may seem like a simple question, defining agriculture in Ontario County is more complex than it may appear on the surface. The agriculture industry is actually much more diverse and far-reaching than most people realize. Technically speaking, the Census defines a farm as “any place from which \$1,000 or more of agricultural products were sold or normally would have been sold during the census year”.

It's important to keep in mind that there are a wide range of agricultural services and products, such as landscaping and horticultural businesses, golf course/turf management operations, flowers/florists, arborists, etc.

Below is a generalized list of products and services related to agriculture:

Traditional Products

Ontario County farms produce a wide variety of traditional agricultural products: nursery and greenhouse plants, sheep, wool, pigs, beef cattle, vegetables (tomato, potato, onion, beans, carrots, cabbage, lettuce, radishes, turnips, cucumbers, pumpkins, etc.) wood products, oats, grain, seeds, turfgrass, nursery and greenhouse plants, wheat, nuts, berries (strawberries, raspberries, blueberries, etc.) poultry, eggs, dairy products (milk, cheese, sour cream, butter, yogurt, etc.), horse operations, fruit (grapes, apples, plums, cherries, peaches, etc.) sunflowers, maple syrup, honey, etc.

Specialty Items

In addition to traditional products, more and more farms are also processing their products into consumer ready specialty items such as wine, salsas, jams, jellies, relishes, etc., as well as making various craft items.

Tourism/Recreational Aspects

Many farms also host recreational and tourist sidelines including: primitive camping, U-pick, boat/canoe rentals, hay rides, nature walks, riding arenas, farm vacations, hunting, petting zoos, sleigh rides, orchard tours, snowmobile trails, farm museums, cut your own Christmas trees, fishing, swimming, boarding pleasure horses, etc.

OVERVIEW OF AGRICULTURE IN ONTARIO COUNTY

The climate of Ontario County, as well as the soil and water resources it possesses, supports a very diverse agriculture industry. In fact, there are few areas of the world that host the combination of agricultural resources (soil, fresh water, and favorable climate) that Ontario County does (Eswaran 2000).

The rolling hills and specialized microclimate along the County's five lakes support excellent grape production. The deep, fertile soils in the central portion of the County are highly suited to quality vegetable production. Soils between these two areas accommodate cash crops that support well-established dairy and various livestock industries.

Physical Characteristics

Location and Geography

Ontario County is located in west-central New York, about midway between Lake Ontario and the Pennsylvania State line, in between Rochester and Syracuse. The County encompasses 649 square miles, or 415,360 acres across two major physiographic regions: the Central Lowlands for the northern two-thirds of the County and the Allegheny Plateau to the south.

Many long, low hills known as drumlins lie in the northern part of the County. These long hills vary from 20 to 100 feet in height above the intervening valleys and gravel plains. Between the drumlin region and the southern plateau is an undulating to rolling upland that gradually increases in elevation toward the south. Elevations in the southern plateau section of the County range from 2,256 feet above sea level (Gannett Hill, Town of Bristol) to 800 to 1,000 feet in the valleys.

Climate

The County lies within a continental climate type. Winters are cold and the summers are warm and humid. The mean average temperature of Ontario County is 45.9 degrees F, ranging from an average low in February of 21.1 degrees to an average high in July of 69.7 degrees. The growing season averages 162 days. Growing degree-days in Ontario County range from 1,800 to 2,500. Growing degree-days is an indirect measure of the heat available to induce growth of crops.

Annual precipitation averages from 33 to 36 inches, with May through September precipitation averaging 16 inches. Rainfall is evenly distributed throughout the growing season; however, periods of drought during the summer season can often endanger crops.

The County's lakes, particularly Canandaigua and Seneca Lakes, noticeably affect temperature and air movement on microclimate scale. Land adjacent to the lakes tends to have an extended growing season, with a moderating influence on warming and cooling trends in the spring and fall.

Soils

Urban and rural communities alike depend on soils, as they are the foundation for land use, development, waste management, and naturally -- food production. Ontario County has been endowed with some of the best farmland in the world.

Approximately 76% (311,900 acres) of the County has *Important Farmland Soil*, as classified by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) (see *Table 1*). Three farmland categories are included in the Important Farmland Soil classification—*Prime Farmland*, *Unique Farmland*, and *Farmland of Statewide Importance*.

Prime Farmland exhibits the best combinations of physical and chemical characteristics for producing food, feed, forage, fiber and oilseed crops. Prime farmland soils have the soil quality, growing season, and moisture supply necessary to economically produce sustained high yields of crops. In general, the characteristics of these soils include adequate moisture and drainage, adequate soil depth and texture, are not susceptible to erosion or flooding, and sustain high yield production with minimal fertilizer and energy requirements. Approximately 50% of Ontario County's land base is classified as prime farmland.

Unique farmland produces high yields of specialty crops such as fruits and vegetables. It is characterized by good soil quality, location, topography, growing season, and moisture. Once converted to other uses, unique farmland cannot be economically restored to previous conditions.

Farmland of Statewide Importance produces fair to good yields of crops when managed according to sound agricultural practices. These farmlands are important to the state for production of food, feed, fiber, forage and oilseed crops. A breakdown of USDA Important Farmland Soils is presented in *Table 1*.

Although only 8% of the world's soils are considered prime or unique farmland soils, about 51% of Ontario County's land is classified as prime or unique (Eswaran et al 1999; USDA 1978). To compare to statewide statistics, approximately 15% of New York hosts prime or unique agricultural soils (Wagner 2000).

Table 1. Important Farmland Soils of Ontario County

Soil Type	Total Acres	Percent of Land Area
Prime Farmland	206,693	50%
Unique Farmland	2,538	1%
Additional Farmland of Statewide Importance	102,669	25%
Total Number of Important Soils in Ontario County	311,900	76%

Total Number of Acres of Ontario County	415,360	100%
---	---------	------

Soil formation and characteristics: The soil resources of Ontario County were formed through the interaction of climate, living organisms, parent material (bedrock), time, and topography. The importance of any one of these five factors can vary greatly from place to place, resulting in different soil qualities. The differences in Ontario County soils are attributed mainly to topography, and to a lesser degree, parent material. The parent materials in Ontario County primarily include sandstone, limestone, and shale.

In terms of topography, 65% of soil surfaces in Ontario County are level and/or gently sloping; another 20% are sloping but not steep. Over 50% of the soil in the County is rated as having good to better drainage, with another 30% being moderately good.

Generally, a progressive decrease in lime content occurs from north to south in Ontario County soils. The northern part of the County is characterized by high-lime soils where, over the years, lime has leached to depths as great as three feet. These soils, characterized by Honeoye and Palmyra soil types, are highly productive for food production and have a nearly neutral pH. At depths of three to four feet, a layer of clay restricts water movement downward, thereby helping to make moisture available for plant uptake.

Moving south, the parent materials are relatively low in lime, because it has leached in excess of four feet below the surface. At depths of two to three feet, these soils typically contain a densely packed clayey layer that restricts or prevents the downward movement of water. Typically the soils are medium textured and acidic.

In the areas south of Honeoye Lake, and south and west of Canandaigua Lake, often referred to as the Allegheny Plateau, the soils are predominately weathered and strongly acidic. The soils range from the well-drained Bath series to the poorly drained Volusia soils. Soils that are cultivated, however, generally do respond well to nutrient management.

Water Resources

A sufficient and clean water supply is necessary not only for human consumption, but is also a basic element for food production. There are few regions in the world that possess as ample a supply of fresh water as in the Finger Lakes. Sources for agricultural uses in Ontario County include both surface and groundwater supplies.

Groundwater: In Ontario County, groundwater is generally found in sufficient amounts and is the major source of potable water for farms and homes in the County, accessed either from drilled or dug wells.

Based on water bearing characteristics, bedrock formations in the County can be grouped into four categories. The northern most group is comprised of shale aquifers with an average yield of 20 gallons per minute (20 gpm). Just to the south, a bedrock group comprised of limestone, is approximately 170 feet thick and yields around 22 gpm.

In the central part of the County a broad east-west aquifer is over 1,000 feet thick. This aquifer, found in shale bedrock, yields six gpm, on average. The southernmost aquifer in the County is found in layers of shale, siltstone, and sandstone to a depth of 1000 feet. This aquifer is as equally low yielding as its northern neighbor (approximately six gpm), but in many cases may only produce one gpm.

Surface Water: Ontario County hosts numerous streams and lakes. All or parts of five of the Finger Lakes are located in the County. These surface waters are an extremely valuable resource to residents, businesses and visitors alike. There are two major watersheds (drainage basins) and one smaller watershed in the County. The largest system is located within the Oswego River Basin, which encompasses 75% of the land surface area of the County. This system includes Ganargua Creek, Canandaigua Lake and its Outlet, Flint Creek, and the tributaries to Seneca Lake.

The Genesee and Irondequot River Basins drain northward into Lake Ontario. This system encompasses almost 25% of the County's land surface area. Hemlock, Canadice, and Honeoye Lakes, as well as their tributaries, are part of this drainage system.

Less than 1% of the County drains to the south, eventually emptying into the Cohocton River as part of the Chemung-Susquehanna River Basin.

Water quality can be a serious limiting factor on the availability of surface water for consumption and food production. Water quality is directly related to land use practices and land use changes. Erosion, sedimentation, nutrient, and chemical runoff from residential, and industrial operations, as well as agricultural, all affect water quality.

National/Global Food Supply Perspective

The U.S. consumer has the most readily available, diverse, high quality and plentiful food supply in the world. **At the same time, the average U.S. consumer spends only 10.9% of his/her expendable dollars on food (lowest in the world)** (Farm Bureau 1997). One of the major factors that contribute to this favorable situation for U.S. consumers is the diversity of U.S. food producing areas.

Agricultural producers in Ontario County are an important part of the national food system and compete nationally and internationally to supply U.S. consumers with milk and meat products, vegetables, fruits, cereal grains, and various other agriculture products. Ontario County farms and ag businesses, along with other high production areas of the east coast, help provide "insurance" against a disruption in the U.S. food supply when natural disasters occur in other major agricultural producing areas.

As the world's population continues to grow, food availability will increasingly become a concern. The United States will likely remain a leader and important supplier to the food system, including farms in Ontario County -- if we remain positioned to do so. The combination of highly productive soils, abundant fresh water supply, and favorable climate that are described in preceding sections of this report should not be taken for granted. They make the Ontario County agriculture industry extremely valuable and well positioned for being a major player in future world markets.

Agriculture and Environmental Quality

Farmers play a significant role in protecting the health and sustainability of soil, water, and wildlife resources. Ontario County's farmers face tough questions every day about how to make a living from the land while protecting natural resources and preventing pollution.

To minimize the impact that farming practices may have on the environment, the agricultural community is continually adapting its management methods according to most current management practice recommendations.

These recommendations are updated based on research conducted at Cornell and other land grant universities. Producers are kept abreast of these updates through Cooperative Extension programs, Soil & Water Conservation Districts, the Natural Resources Conservation Service, and private agriculture industry consultants. The following is a list of the most recent and significant programs and practices that local producers are undertaking.

Agricultural Environmental Management

Agricultural Environmental Management (AEM) is a voluntary, locally-led and implemented initiative that provides one-on-one help to farmers who want to identify environmental concerns on their farms and implement appropriate solutions. AEM provides a framework for existing agricultural agencies and private sector organizations to coordinate the delivery of their services to farmers. AEM utilizes a tiered approach to whole farm plan development.

Services provided through AEM include aid in identifying environmental concerns, planning and design of needed conservation practices, and the opportunity to apply for financial assistance. The farmer's business needs are a key consideration throughout the AEM process, and the farmer is the chief AEM planner.

Goals of AEM

1. To help farmers address environmental concerns on their farms in a comprehensive and cost-effective way, while maintaining the farm as a viable business.
2. To protect New York's natural resources, especially ground and surface waters used for drinking.
3. To help farmers comply with existing and new environmental rules and regulations.
4. To direct public resources -- both personnel and financial -- to farms where they are most needed.

How AEM Works: The "Tiered" Approach

AEM is based on a five-tier/step environmental planning and implementation process. This tiered approach is designed to direct personnel and financial resources to farmers with the greatest potential for impacting the environment.

- *Tier 1 -- Questionnaire:* The farmer fills out a standard, general questionnaire designed to identify potential and existing activities on the farm, which might impact the environment. If no concerns are identified, the process ends here and the farmer's good stewardship is documented.

-
- *Tier 2 - Worksheet:* The farmer completes more detailed worksheets in activity areas identified in the Tier 1 questionnaire, with the help of a local agricultural agency person or consultant. The worksheet verifies the existence of concerns that will require the development of a management plan. If environmental concerns are minor and easily remedied, the farmer's good stewardship is documented and the AEM process ends here.
 - *Tier 3 -- Plan:* A plan to address the environmental concerns and risks identified in Tier 2 is developed with the help of local agricultural agency staff or a consultant. Existing NYS conservation plans, agricultural waste management plans, or other plans may serve as all or part of the Tier 3 AEM plan.
 - *Tier 4 -- Implementation:* The plan is implemented, often through the use of "Best Management Practices" (BMPs). BMPs are measures that prevent or reduce nonpoint source water pollution. Federal, State or local cost-share funds are used when available and necessary to implement costly environmental practices, such as barnyard improvements and manure handling systems.
 - *Tier 5 -- Evaluation:* Both the local AEM program and environmental outcomes on individual farms are evaluated. This includes measuring program participation and effectiveness of the AEM initiative at the individual farm level, and also at the state, county or watershed level.

Throughout the five tiers, follow-up and education are important in order to ensure that environmental practices are effective. The farmer's business needs and goals are also a key consideration throughout the AEM process.

AEM Support

Nine different agencies were involved in the development of the Agricultural Environmental Management (AEM) tiered approach to whole farm planning: NYSDEC, NYS Department of State, US Environmental Protection Agency, NYS Department of Health (NYSDOH), Natural Resources Conservation Service (NRCS), county Soil & Water Conservation Districts (SWCD), Cornell University, Cornell Cooperative Extension (CCE), NYS Agriculture & Markets, and NYS Soil & Water Conservation Committee. All environmental aspects of farming are addressed in the worksheets, which let farmers know where there is room for improvement, and where they are doing a good job.

Canandaigua Lake Watershed AEM Program

The Ontario County AEM Program began in the Canandaigua Lake Watershed in 1996. To date, 96 Tier 1 and Tier 2 surveys have been completed for approximately 105 farms. As a result of those surveys, planning and implementation of BMPs have been contracted on 18 farms.

Planning for additional BMPs continues based on needs identified through the Tier 2 worksheets. The planning is done through cooperation among the farmers, NRCS, SWCD, and others as needed. Follow-up with farmers in the watershed, which is an essential part of the process, is also on going. Presently, about 90 farmers (representing roughly 40,000 acres of land) are actively participating in the Canandaigua Lake Watershed AEM Program.

Other AEM Programs in Ontario County

Northern Watersheds: Funding to develop nutrient management plans for farms within the Northern Watersheds Agricultural Program has recently been acquired. This program may apply to as many as 299 farms in the towns of Farmington, West Bloomfield, Manchester, Hopewell, Phelps, Richmond, East Bloomfield, Victor, Canandaigua, and Canadice.

Seneca Lake/Flint Creek Watersheds: Yates County SWCD currently has AEM programs for the Seneca Lake and Flint Creek Watersheds that include Ontario County farmers.

Integrated Pest Management

One of the most effective programs for implementing environmental stewardship is Integrated Pest Management (IPM). IPM seeks to minimize the use of pesticides while maintaining an economically viable crop. Through effective monitoring, use of various cultural practices, effective timing of pesticide applications, and other practices, a farmer applies only the amount of pesticides needed, as warranted by economic considerations.

Many Ontario County farmers willingly and voluntarily participate in this practice. Although IPM has many environmental benefits and cost savings, it can also be more labor intensive, requiring thorough management.

Rotational Grazing

The practice of intensive rotational grazing is an environmentally sound management practice that, where implemented, improves water quality. Unlike annual tillage crops that expose soils, rotational grazing stabilizes the soil by providing permanent vegetative cover. As a result of this cover, rotational grazing provides reduced soil and animal waste runoff.

Urban/Rural Interface

Ontario County food and agriculture businesses manage approximately 44% of County's land area. The land use role that farmers play in the community fosters rural character and affects many quality of life issues. Many people consider communities with a "rural character" to offer higher quality of life for their families.

Land development throughout New York is increasingly bringing residential development and nonfarmers into agricultural areas. Many of these new rural residents have little previous exposure to agriculture and farming practices.

Many times, new residents have misconceptions about what activities occur on farms, which can unfortunately lead to conflict. Thus, as more people move to rural agricultural areas, there is a need to build positive, cooperative relationships between farm and non-farm neighbors. A level of understanding between neighbors and farmers, which minimizes annoyances to residents while not hindering necessary farm activities, is essential.

Farmers that use best management practices, are environmentally responsible, and seek positive neighbor relations are a valuable asset to Ontario County. Residents that understand farming practices and the importance of agriculture to the rural character and economy of their local communities are equally valuable.

Major Farm Sectors

As mentioned earlier, the soils and climate of Ontario County offer the opportunity for many types of farming and a diverse range of agricultural products. Throughout its history, the County's farm sectors have undergone varying degrees of change. This section outlines the current major farm sectors.

Table 2. Summary Information of Agriculture Sectors in Ontario County (USDA Ag Census 1997)

Farm sector	Number of farms	Number of acres**	Annual sales	Impact on local economy
Dairy	112	18,564	\$32.9 million	\$106.4 million
Livestock (other than dairy)	344	14,446	\$7.4 million	\$23.9 million
Field crops*	508	143,064	\$34.6 million	\$111.9 million
Vegetables	77	13,893	\$11.9 million	\$38.5 million
Vineyards	50	1,754	\$3.5 million	\$25.9 million
Orchards	54	1,211		
Berries	23	145		
Nursery and greenhouse	84	763	\$3.1 million	\$10.0 million

*Includes some repetitive dairy and livestock farm data from above categories because some of these farms also produce field crops.

** NY Real Property Tax data

Dairy Industry Overview

The dairy industry in Ontario County generates the largest dollar volume of sales and includes the most diverse number of support businesses. Overall, the industry includes 112 farms producing at total of \$32.9 million in annual gross sales (see Table 2). In addition to the farms themselves, the industry includes feed supplies and services, insemination services, veterinarian services, milking and animal housing equipment supplies and services, manure handling supplies and services, milk inspectors, milk haulers and shippers, and processors. Dairy land use decreased 15% from 1992 to 1997.

Background: Modern dairy production is a sophisticated process that requires a high degree of management in multiple stages. Cows lactating after giving birth require one set of management skills in order to maximize milk production. Those cows that are or are between pregnancies (dry cows), those waiting to be bred for the first time (heifers), and young calves, all require different feeding and management approaches.

Dairy farming also requires effective breeding management. Breeding is done artificially to insure success and the parentage of the offspring and bred heifers are especially cared for to maximize the success of the pregnancy.

Field Crop Industry Overview

The field crop industry in Ontario County is comprised of 508 farms working over 143,000 acres in 1997. This figure includes some dairy and livestock farms that produce field crops in addition to their other products. The largest segment of the field crop industry in Ontario County is corn for grain or seed. Almost half the farms grow corn for grain. Hay and corn silage are the next largest segments of the industry. Other crops include oats, wheat, soybean, and other small grains.

The number of farms decreased by 37 between 1992 and 1997, however, the number of acres being farmed for field crops increased by 1%. Sales equaled \$34.6 million in 1997.

Background: Crop production is a highly specialized and sophisticated process. Intensive management skills are necessary to successfully produce a saleable product at a cost-effective price in today's market. Generally, the increasing costs of inputs have surpassed stagnate commodity prices. Therefore, stringent cost controls and tight management is imperative in the field crop business.

The typical field crop farm includes extensive planting, harvesting, and soil preparation machinery. The high cost of machinery has led to the increase in farm size because larger farms are able to afford big machinery costs by spreading costs over more acres.

Livestock Industry Overview

The livestock industry includes beef, swine, sheep, horse, goat, and poultry farms. Crops produced on a livestock farm vary with the animal produced. Land used for beef and hog production decreased by 39% between 1992 and 1997. Conversely, land used for horses increased 841 acres to a record 1,528 acres in 1997. Land use for sheep has remained fairly level at approximately 784 acres in 1997. Sales for the 344 livestock farms in the County equaled \$7.4 million in 1997.

Beef: In 1997, there were approximately 109 beef producers in the County; a reduction of 21 farms since 1992. These farms, typically small and part-time operations, collectively carry about 1,618 animals. The increased number of animals on each farm is a trend facilitated by economics. In most cases, the farm is supplemented by another farm operation or from off farm income.

Background: A typical beef farm will have breeding stock that consists of females that are bred to produce calves for sales. The breeding stock is not sold each year as meat animal, but instead is kept and rebred. The breeding stock is managed to maximize genetic progress and profitability. Calves produced are sold either as meat animals or as breeding stock for other beef farms.

Some beef farmers do not have breeding stock. Instead, they prefer to buy calves from another beef reproductive business and finish growing the animals for market. These producers are interested in focusing their resources on meat production and do not get involved in the intensive reproductive management necessary for breeding animals.

Sheep: Sheep production in Ontario County occurred on 24 farms hosting 1,874 animals in 1997. Typically, sheep producers are part-time operations that supplement another farm enterprise.

Background: Sheep consume a predominately forage based diet of hay pasture and silage. Grain is fed to lactating animals and growing lambs. Many sheep farmers use rotational grazing to effectively manage their animals and land resources.

Swine: There are approximately 20 swine farms in Ontario County totaling 4,191 animals. These farms sold a combined total of 17,215 market animals in 1997. As with almost every aspect of agriculture, recent years have seen more specialization in farms and the number of hogs per farm has increased.

Background: Hogs are non-ruminant animals, so their diet is quite different than beef and dairy cows. Hogs eat a primarily grain-based diet of corn and soybeans. They provide a market for homegrown grains as well as grain produced on neighboring farms.

Horse: The horse industry in Ontario has remained stable for the last seven years with the number of farms remaining at 147. Since 1992, the number of horse and ponies in the County has increased 13% from 994 to 1,125. Horse and pony sales, however, have slowed slightly, with a decrease from \$332,000 in 1992 to \$240,000 in 1997.

Poultry: The poultry industry in Ontario County consists of 40 farms (a 9% decrease from 1992). Thirty of these farms produce eggs, seven produce turkeys and three produce chickens or ducks for meat consumption. The poultry industry had \$1.4 million in product sales 1992. More recent sales data is not currently available. Inventory of the number of poultry animals has not been available since 1987.

Fruit Industry Overview

The number of acres in orchard crops and berry production in the County has remained relatively level in recent years. Acreage in vineyards, however, has decreased 18%, from 2,141 acres in 1992 to 1,754 acres in 1997. Fruit sales equaled \$3.5 million in 1997.

Berries: Raspberries and strawberries are the principal small fruit commodities produced in the County, however, blueberries are also grown with success. Berries are very seasonal and highly perishable by nature. They are primarily sold through the 13 farm markets and U-pick Farms in Ontario County, though some are sold to retail markets such as Tops and Wegmans. In 1997, there were 23 berry farms in the County covering 145 acres.

Vineyards: There are 50 vineyards in Ontario County covering approximately 614 acres of land. These vineyards mainly produce wine grapes for sale to Canandaigua Brands and other farm wineries in the Finger Lakes region. Canandaigua Brands, located in Canandaigua, is the second largest winery in the United States and is the largest market for Ontario County grapes.

The number of farm wineries in the Finger Lakes region has expanded significantly over the past ten years in part as a response to consumer demand for small quantities of numerous grape varieties. This increased demand represents a new niche for vineyards to supplement level or declining sales to Canandaigua.

Grape pie is a value-added grape product unique to Ontario County that has enjoyed increased popularity and sales. Grape pie sales to tourists along with private labeled jellies, jams and vinegars sold through local outlets are part of the value-added products from local vineyards.

Allied to the grape industry and value added products sales is an increased tourism business. Wine tasting along wine trails throughout the Finger Lakes Region has helped expand tourism traffic to approximately 60,000 visitors each year.

Orchards: Apples, cherries, peaches, pears, and plums are the major tree fruits produced in Ontario County accounting for about 1,200 acres. Apples are by far the largest tree fruit commodity with 18 producers.

About 50% of Ontario County apples are also sold fresh or as cider directly to consumers through U-pick operations, roadside farm stands or farmers' markets. The remainder are sold to processors located outside the County for manufacturing juice and applesauce. Other than apples, the majority of tree fruit commodities are sold fresh to consumers through U-pick or direct markets.

Several commercial operations and the New York State Agriculture Experiment Station in Geneva support the orchard and small fruit industry in Ontario County. Amberg's Nursery produces grafted trees for the tree fruit industry and Amberg's Grafted Grapes produces grafted grape stock for the vineyards. Additionally, the NYS Agriculture Experiment Station in Geneva does extensive research in development of grape and tree fruit varieties.

Vegetable Industry Overview

Vegetable and dry bean production is a critical part of the food and agriculture industry in Ontario County. The deep, high quality soils, found mainly in the central portion of the County, make the 13,893 acres in vegetable production highly productive for 77 farms in the County. Additionally, the Census of Agriculture (1997) reports that 51 farms and 4,385 acres produce dry beans.

Over the past ten years, the vegetable industry has grown in Ontario County. Land acreage in production has increased as has the value-added enterprises associated with vegetables. Value-added enterprises are those businesses that add monetary value to an agricultural product by processing it or increasing its appeal to consumers (e.g. making salsa from tomatoes). Sales from vegetables and dry beans equal about \$12 million.

New cultural practices are being used to produce vegetables using integrated pest and crop management techniques. Support for this industry comes from many commercial businesses in the County.

Processed: Sweet corn, green beans, cabbage, beets, carrots, and pickles are sold to processors both locally and in the northeastern U.S. AgriLink Foods, a wholly-owned subsidiary of Pro-Fac Cooperative, is a food processing and marketing company that contracts with many Ontario County growers. AgriLink markets frozen and canned products such as Blue Boy, Birdseye, Tops, Wegmans, and other private labels. Great Lakes Kraut Company, a joint venture business owned by AgriLink Foods and Flanagan Brothers, processes cabbage both in Shortsville and Geneva. Labels include Silver Floss, Greenwood, Blueboy, and Wegmans.

Seneca Foods, an independent company, processes green beans, wax beans, and red cabbage in Geneva. Seneca Food labels include: Seneca, Green Giant, Aunt Nellies, Libby's, Lohmann's, Wegmans, and Tops.

Dry beans (primarily light and dark red kidneys, black and other types of beans) are sold to two Ontario County brokers or to canners in Pennsylvania. Brokers sell 60% of the product to canners.

Fresh Market: Many types of fresh market vegetables are sold through roadside stands and farm markets in the County. Pumpkin sales, in particular, have increased significantly in the past ten years. Wegmans, Tops and other retail stores in the area sell local produce. Produce markets in Buffalo, Rochester, and Syracuse are other available outlets for local fresh market vegetables.

Cabbage is also sold for fresh market and cole slaw. Western New York produces 90% of the cole slaw cabbage consumed in the eastern United States. Either individually or through grower-shippers and brokers, these markets require producers to sell product twelve months out of the year. To meet this demand during the winter months, producers market product from environmentally controlled facilities.

Approximately 40% of the dry beans that are produced in the County are sold to brokers for fresh consumption, both domestically and in South America and Caribbean countries.

Nursery and Greenhouse Overview

Following a national trend, the nursery and greenhouse industry in Ontario County has seen significant growth in farm numbers, number of acres, and total sales in recent years (see *Table 3*). This category covers a variety of farm products including vegetable and flower seed crops, bedding plants, foliage plants, vegetables for garden use, potted flowering plants, hanging baskets, cut flowers, bulbs, and Christmas trees. As consumers continue the trend of purchasing plants for home and backyard use, the industry will grow to meet these demands.

Table 3. Growth of Ontario County Nursery and Greenhouse Industry between 1992-1997 (USDA Ag Census 1997).

Industry component	1992	1997
Number of farms	38	61
Number of acres*	650	763
Greenhouse space	123,093 sq. ft.	208,288 sq. ft.
Total sales	\$1.9 million	\$3.1 million

* NY Real Property Tax Data

In 1992, there were 38 nursery greenhouse farms in Ontario County. In 1997 that number increased 60% to 61 farms. Greenhouse space increased from 123,093 square feet in 1992 to 208,288 square feet in 1997. Nursery crops grown out in the open covered 650 acres in 1992, while in 1997 that area had grown to 763 acres. In terms of dollar value and economic impact, total sales were \$3.1 million in 1997; up 67% from 1992 (\$1.9 million).

Thirteen farms produce floriculture crops such as bedding and garden plants, foliage, and potted plants. These crops are grown for the general consumer and not for commercial vegetable growers. Bedding and garden plants produced in greenhouses or under shade structures covered 127,568 square feet in 1997, up from 68,656 square feet in 1992.

AGRICULTURE & THE ONTARIO COUNTY ECONOMY

Background

Ontario County's agricultural industry is made up of three distinct sectors: farm production, direct farm sales, and agribusinesses. Each sector supports and depends on the other for its continued success. Farming requires the purchase of seeds, feed, fuel, fertilizers, pesticides, maintenance, repairs, machinery, and various other supplies and services. Direct farm sales and agribusinesses require active farms and consistent production.

Overall Value and Economic Impact of Agriculture

The total sale of agricultural products in Ontario County was \$78 million in 1997. This figure is a fair indicator of gross farm income, a large part of which is reinvested in the local economy (Wagner 1996).

The total economic impact of agriculture in Ontario County can be assessed by applying an economic multiplier to the annual value of agricultural product sales. The concept refers to the fact that each dollar generated by a specific industry is subsequently recirculated throughout the local economy. The frequency of recirculation determines the overall impact the particular industry has on the local economy.

Professor Nelson Bills of Cornell University has developed economic multipliers for regions within New York State. The economic multiplier for the central New York region, including Ontario County, is 3.235. Using this multiplier times the annual sale of agricultural products yields an **annual impact of \$252 million to the local economy.**

Value of Individual Farm Operations

When a town loses a farm, the economic impact is felt throughout the County and even the region. Establishing the actual economic impact generated by the loss is difficult but can be estimated using average numbers from the Dairy Farm Business Summary (Smith et al 1994). The summary, published by Cornell Cooperative Extension, analyzes dairy operations and calculates ranges for comparison on several factors.

The Dairy Farm Business Summary (1996) put total accrued expenses for 65 farms operating in the central New York region at \$246,169. This figure includes all expenses required to run a 100-cow farm.

Using the multiplier effect discussed in the previous section, the loss of **one 100-cow dairy farm in central New York yields a loss to the County's gross product (total goods and services annually produced in the County) of \$796,356.** This is an annual loss unless the farm is restarted or leased in whole or in part. This translates to a per cow economic loss to the County of \$7,964. This figure provides a good benchmark to use for determining the loss for farms that exit the industry, regardless of size.

The economic loss per acre of tillable land is \$2,719 (based on 297 acres of tillable land on 455 acre farm). These numbers were calculated based on the assumption that the land remains idle upon the farm's exit from the industry. Leasing the land will reduce this loss through the generation of crops and associated expenses.

Cost of Farmland Development

One way of calculating the net economic impact resulting from conversion of farmland to residential development is to compare cost of providing community services for residential versus farmland on a per acre basis.

Based on information developed by the American Farmland Trust (Cosgrove 1994), for every dollar spent in taxes in New York State, residential lands receive \$1.32 while agricultural lands receive \$0.21 in community funded public services (schools,

infrastructure, etc.). In other words, **residential development requires more expenditures than agricultural land and places a greater burden on taxpayers, ultimately costing communities more.**

According to a 1997 Onondaga County study, the **net economic impact from the sale of 100 acres of farmland for the development of twenty, 5-acre home plots was a loss of \$32,800. Maintaining the land in agriculture equaled a net gain of \$2,383** (Onondaga County Farmland Protection Board 1997).

Support Businesses

Agricultural producers in Ontario County support a wide range of businesses. According to Census of Agriculture statistics (1997), Ontario County farms spent \$10.3 million on feed, \$10.0 million on hired labor, \$7.7 million on commercial fertilizers and agricultural chemicals, \$5.5 million on maintenance, and \$3.3 million on petroleum products in 1997. Below is a list of local businesses that agricultural producers support.

Construction, plumbing and general contractors -- Construction is needed to provide feed storage, animal housing, manure handling, milking equipment/facilities, etc. The majority of these services are provided by off-farm contractors, plumbers or specialists in the design, installation and management of the specialized equipment.

Feed/grain suppliers and consultants – In addition to supplies, a feed company will often provide nutrition-balancing services. Frequently, producers will buy a portion of the needed materials to balance the ration from a feed supply company who grinds the constituents and mixes them, based on given specifications.

Insemination services -- An outside company typically contracts with livestock/dairy farms to provide insemination services on a regular basis (often a farmer cooperative).

Veterinarian services -- Herd health is provided by various veterinarian services. Veterinarians provide preventive health management, diagnostic services or help in case of emergencies.

Milk/cheese manufacturing, bottling, distribution, etc. -- Milk is marketed as either fluid milk or cheese at any of 5+ in New York State plants or one facility in New Jersey. Facilities in New York that are owned by producer cooperatives are Upstate Milk, Dairylea, and Dairy Farmers of America. Sorrento, Bryne Dairy, and Kraft are privately owned milk handlers.

Business management services -- Business management services are provided by off-farm vendors including accountants, lawyers, tax preparers, financial institutions, payroll services, etc. Farm Service Association and Farm Credit Association are examples of noncommercial agriculture lenders.

Crop consultants – Private consultants provide fertilizer and pesticide services, pest scouting, nutrient management plans, etc. Public agencies also provide some of these

services including Cooperative Extension, Soil & Water Conservation Districts, and the Natural Resource Conservation Service.

Machinery dealerships/repair shops – With today’s technological agricultural practices comes a reliance on various types of farm equipment, machinery, and tools.

Processing and marketing businesses – Wineries, vegetable processing plants, and marketing businesses help farmers sell their products to wholesalers, retailers, and directly to consumers.

Seed, fertilizer, pesticide suppliers – Farming requires a number of supply inputs. Some, such as fertilizer can be generated on-farm. Others are purchased from various supply companies.

Inspectors, packers, haulers, shippers – Inspection, product preparation, and transportation services occur at various times throughout the production development and sale of agricultural products.

DEVELOPMENT AND LAND USE TRENDS/ISSUES

Many factors influence development and land use patterns in Ontario County. Among them are the physical characteristics of the environment, proximity to regional resources and markets, the economy and employment opportunities, transportation and other infrastructure systems, government regulations and community attitudes.

This section looks at the farmland resources of Ontario County and its towns, the historic changes, and trends that will impact the amount of farmland, and the economic viability in the future. To further profile agriculture and land use trends, the County is divided into three regions with profiles of individual towns. They include **Western Ontario County** (Towns of Bristol, Canadice, Canandaigua, East Bloomfield, Naples, Richmond, South Bristol and West Bloomfield); **Northern Ontario County** (Towns of Victor, Farmington, Manchester, & Phelps); and **Eastern Ontario County** (Towns of Hopewell, Gorham, Seneca and Geneva).

About the Data

The only consistent source of information on changes in town and County agricultural land use during the 1990's is the data collected by town assessors on each parcel and categorized according to the *Property Type Classification and Ownership Codes Assessor's Manual*, New York State Board of Real Property Services.

There are ten major agricultural land types within the category. They are further subdivided to reflect particular uses within the category. (For example 110 - Livestock has seven subcategories such as Dairy, Poultry and Poultry Products, Sheep and Wool, etc.). The population figures are estimates prepared by the Ontario County Planning Dept. based on U.S. Dept. of Commerce Census data.

Ontario County's Farmland Resource

Driving around the countryside, it may seem like there is plenty of farmland and therefore no particular cause for concern. To those not involved with agriculture, farmland and farming is viewed as a traditional part of our society and landscape with an unfounded presumption that it will always be there. The change is usually incremental and imperceptible and the trend usually impossible to reverse once it has begun to be noticed.

Approximately 76% of Ontario County (311,900 acres) is classified as prime, unique, or statewide significant agricultural soils according to the U.S. Dept. of Agriculture, Natural Resource Conservation Service. In 1999, Ontario County had 191,609 acres classified as "agriculture". Using this as a substitute for land with significant agricultural soils, 61% or 191,609 acres has been lost since the soil survey was done in the 1940's. Once this land has been converted to non-agricultural use, it is nearly impossible to return it to its original state of production.

In the last seven years alone, 15,776 acres of classified as agricultural were converted to non-agricultural uses, an 8% loss or 6 acres a day (see Table

4). Between 1990 and 2000 Ontario County population grew by an estimated 6,304; from 95,101 to an estimated 101,405, according to projections completed by the Ontario County Planning Department.

Table 4. Profile of Agricultural Land in Ontario County.

Town	Total Acreage	Total Acreage in Ag Parcels - '92	Total Agricultural Acreage - '99	% Loss '92-'99	% Town Acreage in Ag Parcels 1992	% Town Acreage in Ag Parcels 1999
Bristol	23,439	5,251	3,808	27%	22%	16%
Canadice	20,569	2,360	1,532	35%	11%	7%
Canandaigua	40,120	18,452	17,799	4%	46%	44%
East Bloomfield	20,452	12,587	10,232	19%	62%	50%
Farmington	25,252	16,627	14,037	16%	66%	56%
Geneva	12,361	7,492	7,076	6%	61%	57%
Gorham	33,815	22,453	21,464	4%	66%	63%
Hopewell	22,849	17,464	17,069	2%	76%	75%
Manchester	22,647	15,091	14,863	2%	67%	66%
Naples	24,770	4,618	3,199	31%	19%	13%
Phelps	40,588	27,049	26,480	2%	67%	65%
Richmond	28,352	13,416	11,589	14%	47%	41%
Seneca	32,140	28,872	27,708	4%	90%	86%
South Bristol	26,928	2,362	1,900	20%	9%	7%
Victor	22,190	4,706	4,717	0%	21%	21%
West Bloomfield	16,239	8,576	8,136	5%	53%	50%
Ontario County	412,711	207,376	191,609	8%	50%	46%

Source: N.Y. Real Property Tax Data

Agricultural Districts

Approximately 56% of Ontario County is located within agricultural districts according to 1998 N.Y. Real Property Tax Data. Agricultural districts were created to protect and preserve agricultural lands from loss to non-agricultural development. Article 25AA-Agricultural districts, of the Agriculture and Markets Law states that:

The socio-economic vitality of agriculture in this state is essential to the economic stability and growth of many local communities and the state as a whole. It is, therefore, the declared policy of the state to conserve, protect and encourage the development and improvement of its agricultural land for production of food and other agricultural products. It is also the declared policy of the state to conserve and protect agricultural lands as valued natural and ecological resources which provide needed open spaces for clean air sheds, as well as for aesthetic purposes.

Though the law does not provide complete protection for farming and farmers, it is an important mechanism to preserve farmland. Specifically, the law provides for the establishment of a county agricultural and farmland protection board and provides for placement of unique and irreplaceable agricultural lands in district by local owner proposal. Advantages include: agricultural tax assessment based on soil classification; limits on local regulation that might unreasonably restrict or regulate farms, limitation on exercise of eminent domain and other public acquisitions; coordination of local

planning and comprehensive plans with the policy and goals of agricultural district law; and a "right to farm" clause, stating that a sound agricultural practice shall not constitute a private nuisance.

Inclusion in an agricultural district limits the assessments made on the property for special service districts such as water and sewer. Assessments are limited to any buildings and/or residences on the parcel rather than a calculation based strictly road frontage.

Agricultural Conservation Easements

Preserving significant farmland requires a long-term, multi-faceted approach involving many strategies and tools. The use of agricultural conservation easements is one tool that more and more communities are using, in conjunction with an overall farmland preservation strategy, in an attempt to maintain their agricultural land base.

An agricultural conservation easement is a *voluntary* legally binding agreement between a landowner and a unit of government or non-profit land conservation organization/land trust that specifically states what the landowner can do with the property and what "rights" they forego. Because the goal of the agricultural conservation easement is to maintain viable farmland, the owner retains all rights necessary to conduct farming operations and can sell, give or transfer title to the property. Future owners are bound by the conditions of the easement. The owner gives up the right to use the property for other uses allowed by local planning and zoning regulations--residential, commercial or industrial development.

Compensation

Towns or land trusts can purchase conservation easements (the term purchase of development rights [PDR] is often used). Landowners can sell the easement at its full value, donate it, or enter into a combination of both, known as a bargain sale. In a bargain sale, the landowner sells the easement for less than its full value donating the difference in value to the town or land trust. The donated value generally qualifies as a charitable tax deduction.

Duration of the Easement

The term of an easement is either ***permanent or temporal*** (for a fixed period of time). A **permanent** easement lasts forever and binds all subsequent landowners. Virtually all PDR or Purchase of Agricultural Conservation Easement (PACE) programs are for permanent easements.

Temporal conservation easements are for a fixed period of time -- a certain number of months or years. At the end of the term the landowner is no longer bound by the conditions of the easement and can sell or develop the property as it is zoned. Temporal easements are generally associated with conservation easement programs established by towns that exchange a reduction in property taxes for the easement -- the longer the term, the greater the tax break. If the owner breaks the easement, they are generally required to pay back taxes and a penalty.

Programs such as these have been very successful in many communities, including Perinton and Penfield in Monroe County. While not providing permanent protection, temporal easements have the advantage of relieving some of the landowner's property

tax burden while allowing the town time to develop a long-term strategy to protect farmland.

Regional and Town Agricultural Land Use Profile

Western Ontario County

Towns of Bristol, Canadice, Canandaigua, East Bloomfield, Naples, Richmond, South Bristol and West Bloomfield (City of Canandaigua; Villages of Bloomfield and Naples)

Table 5. Profile of Agricultural Land in Western Ontario County Farms.

Town	Total Acreage	Total Acreage in Ag Parcels - '92	Total Agricultural Acreage - '99	% Loss '92-'99	% Town Acreage in Ag Parcels - '92	% Town Acreage in Ag Parcels - '99
Bristol	23,439	5,251	3,808	27%	22%	16%
Canadice	20,569	2,360	1,532	35%	11%	7%
Canandaigua	40,120	18,452	17,799	4%	46%	44%
East Bloomfield	20,452	12,587	10,232	19%	62%	50%
Naples	24,770	4,618	3,199	31%	19%	13%
Richmond	28,352	13,416	11,589	14%	47%	41%
South Bristol	26,928	2,362	1,900	20%	9%	7%
West Bloomfield	16,239	8,576	8,136	5%	53%	50%
Region Total	200,869	67,622	58,195	14%	34%	29%

Source: Real Property Tax Data - 1992 & 1999

Overview

Geology, glaciers, and geography has given western Ontario County a rich diversity of landscapes defined by five Finger Lakes -- Hemlock, Canadice, Honeoye and Canandaigua -- and their watersheds. The lakes and scenic beauty of this area has historically made western Ontario County a prime summer cottage location for residents of the Rochester area.

A system of long steeply sloped wooded hills and relatively narrow valleys separate the lakes. In these areas, particularly in the Towns of Bristol, Canadice, southern Canandaigua, Naples, Richmond, and South Bristol, smaller pockets of prime farm soils and consequently smaller farming operations, are interspersed. The hilly, southern portion of the region gives way to the more gently rolling countryside of East and West Bloomfield, and Canandaigua. Traversed by historic Rts. 5 & 20, this area has the largest concentration of prime farm soils and active agricultural operations.

Proximity to the growing suburbs of the southeastern Monroe County is making western Ontario County a desirable location for vacation home development, conversion of existing second homes to year round residences, and new home development. The major improvements to the Rt. 332 corridor will likely have a significant impact on development patterns, particularly in Canandaigua.

Town of Bristol (1990 Town Pop.2,071; 2000 est. Pop. 2,278 +9%)

The Town of Bristol is located in the western part of Ontario County totaling 23,439 acres of land, covering approximately 37 square miles. About 3,808 acres are currently classified as agriculture, accounting for 16% of the land. By comparison, in 1992 there were 5,251 acres of land in agricultural parcels that accounted for 22% of the total land, a 27% decrease.

Agriculture in Bristol is largely comprised of field crops, dairy, and livestock. All three of these areas saw a decrease in land use. **Dairy saw a land use decrease of 48% and field crops decreased by 32% between 1992 to 1999.** The other segments of agriculture also saw decreases in land use. The only exception to this trend is the horse industry, which saw an increase from 14 acres in 1992 to 89 acres in 1999.

The forested Bristol Hills and narrow valleys interspersed with areas of prime farm soils leads to a pattern of smaller farming operations. The largest concentration of prime farm soils and active agricultural operations are in the north and northeastern portions of the Town. About 30% of the town is in an agricultural district. Bristol's proximity to southeastern Monroe County makes it desirable for residential and second home development.

Town of Canadice (1990 Town Pop.1,857; 2000 est.Pop.2.136 +14%)

Canadice is located in the southwestern corner of Ontario County. With steep, wooded hillsides flanking Honeoye, Canadice and Hemlock Lakes and lack of significant concentrations of prime farm soils, agriculture has not been a significant land use.

Of the 20,569 acres making up Canadice, only 1,532 acres (7%) are presently categorized as agricultural. By comparison, in 1992 there were 2,360 acres of agricultural land comprising 11% of the total land in the Town, showing a 35% loss of agricultural land.

Since both Canadice and Hemlock Lakes are water supply lakes for the City of Rochester, cottage and second home development is currently limited. However, Canadice is a 30 to 45 minute commute to the Rochester area and is beginning to see interest in residential development for those attracted by its natural beauty.

Agriculture is comprised primarily of field crops, which decreased by 34% from 1992 to 1999. The agriculture parcels are mostly in field crops and are located in the northwest corner of the town. Only 1% of Canadice is located in an agricultural district.

Town of Canandaigua (1990 Town Pop. 7,160; 2000 est. Pop.8,234 +15%)

The Town of Canandaigua is located in the central part of Ontario County and covers 40,120 acres and approximately 63 square miles. The sharp relief of the Bristol Hills, areas of prime farm soils, and the Canandaigua Lake shoreline characterize the southern half of the town. The northern half of Canandaigua has gently rolling landscape with a larger concentration of prime farm soils and historically larger farming operations. In 1999, 17,799 acres were classified as agriculture, accounting for 44% of Town land. Between 1992 and 1999, agricultural acreage decreased by 4% from 18,452 acres. About 47% of the Town is contained in an agricultural district.

Agriculture acreage is largely comprised of field crops, dairy, and livestock. All three saw a decrease in these agricultural land uses. Dairy saw a land use decrease of 34% from 1992 to 1999. **Field crops saw the largest land use decrease of 56% from 1992 to 1999. The other segments of agriculture including livestock also saw corresponding decreases in land use.**

The northern half of the Town contains the City of Canandaigua and Rt. 332 which is currently being reconfigured as a major highway connecting Canandaigua, I-90-New York State Thruway and Rt. 96 -- the heart of the northwest Ontario County development corridor and eastern Monroe County. It is also the location of the Canandaigua Airport. The presence of transportation infrastructure is expected to significantly influence future land use patterns throughout the town.

The southern half of Town and the west shore of Canandaigua Lake have long been the location of vacation homes and lake cottages. Over the past ten years, there has been a trend towards converting seasonal residents to year round homes along with a general increase in residential development.

Town of East Bloomfield (1990Town Pop. 1,927; 2000 est. Pop. 2,023 +5%)

Immediately to the west of Canandaigua, East Bloomfield is comprised of 20,452 acres of land covering approximately 32 square miles and contains the Village of Bloomfield. Of those 20,452 acres, 10,232 acres are currently in parcels classified as agricultural, accounting for 51% of town land.

In 1992, there were 12,778 acres of agriculture, showing a decrease in agricultural acreage of 19%. Rolling countryside with extensive areas of prime farm soils and larger scale agricultural operations characterize East Bloomfield.

Field crops account for 92% of the acreage, 3% are dairy, with the balance in other types of agricultural operations. Field crop acreage decreased by 16% from 1992 to 1999. The other segments of agriculture also saw corresponding decreases. Only horse operations saw an increase from 38 acres in 1992 to 68 acres in 1999. About 87% of the town is in an agricultural district.

East Bloomfield borders the Town of Victor on the north, which is experiencing rapid growth of commercial and residential development in the County. State Rt. 64 connects E. Bloomfield, Canandaigua, and western Ontario County with the growing suburbs of Mendon and Pittsford in Monroe County. The eastern portion of the town along Rt. 5 & 20 is within a 20-minute drive of Interstate 390.

The Town is experiencing residential development pressure, for larger lot, large-scale homes typical of development patterns in Mendon, particularly in the Rt. 64 corridor. Though limited by the lack of public water supply, interest in residential development is also being felt in the northern part of town adjacent to Victor.

Town of West Bloomfield (1990 Town Pop.2,536, 2000 est. Pop. 2,688 +6%)

The Town of West Bloomfield is comprised of 16,239 acres of land that covers approximately 25 square miles. The Town is bordered on the west by the Town of Lima in Livingston County and Mendon on the north by Monroe County. Of those 16,239 acres, 8,136 acres are classified as agriculture accounting for 50% of the land in the Town. **Between 1992 and 1999, agricultural acreage decreased by 5%.**

The agriculture in West Bloomfield is largely comprised of field crops, which accounts for 78% of the active agricultural land, and dairy operations accounting for 9% of the active farmland. Field cropland use decreased by 5% from 1992 to 1999. There is a slight increase in horse operations. About 79% of the Town is contained in an agricultural district and prime farm soils are common, with the exception of the northeast.

Like East Bloomfield, proximity to Monroe County's growing southeastern suburbs and good transportation access make the town desirable for both residential and non-residential development. Rt.65/CR 37 provides easy commuting access to the Village of Honeoye Falls, Mendon and Pittsford and the I-390/Avon interchange at Rt. 5&20 is only nine miles from the Rt. 65/Rt. 5&20 intersection. The northern portions of the Town, in particular, have seen some development of large lot, larger-scale homes, typical of patterns in Mendon.

Town of Richmond (1990 Town Pop.2,536; 2000 est. Pop.2,688 +6%)

The Town of Richmond is located in the southwest Ontario County between Canadice and Bristol, covering 28,352 acres and approximately 44 square miles. Honeoye Lake dominates the Richmond landscape south of Rt.20A and has long been a location of cottages and second home development. Wooded hillsides interspersed with farm fields slope westward toward the lake.

Presently there are 11,589 acres of agricultural classified land accounting for 41% of the Town's acreage. The largest concentration of prime farm soils and agricultural activity are north of Rt. 20A. About 42% of Richmond is located in an agricultural district.

Agricultural land decreased by 14% in seven years -- from 13,416 acres in 1992 to 11,589 in 1999. Agriculture in Richmond is largely comprised of field crops and dairy operations with some small livestock operations. Field crops increased from 6,097 to 8,585 acres 1992 to 1999. **Livestock and related products decreased 44% from 6,463 acres in 1992 to 2,847 in 1999.**

Richmond also has good transportation access to southern Monroe County and the Rochester area. Served by CR 37, which becomes Rt. 65 in West Bloomfield at Rt. 5&20, Richmond is becoming an appealing residential location for commuters. The hamlet of Honeoye is about a 20 minute drive to the I-390 interchange at Avon.

Town of South Bristol (1990 Town Pop.1,663; 2000 est. Pop. 1,929 +16%)

South Bristol, located in southwestern Ontario County, is dominated by the Bristol Hills and the Canandaigua lakeshore. The town covers 26,928 acres and about 42 square miles. **In 1999, 1,900 acres were classified as agriculture, down 20% from 2,362 acres in 1992.**

About 20% of Town acreage is in agriculture. The largest concentration of prime farm soils is located in the eastern part of Town along Rt. 21 in the Canandaigua Lake watershed. Approximately 21% of the town is located in an agricultural district. Scattered areas of prime farm soils are located throughout other parts of town.

Agriculture is largely comprised of vineyards (1,047 acres) and field crops (544 acres). South Bristol's Rt. 21 corridor with its landscape of vineyards and farm fields

combined with rolling hills, lake views and wineries make it a desirable tourism destination. The beauty of the Town also makes it very attractive for residential and vacation home development.

Town of Naples (1990 Town Pop. 1,237; 2000 est. Pop. 1,249 +1%)

Naples, the southernmost town in the county, covers 24,770 acres and approximately, 39 square miles. **In 1999, 3,270 acres were classified as agriculture, a decrease of 31% from 4,618 acres in 1992.** About 13% of the Town is in agricultural. Pockets of prime farm soils are distributed throughout the Town. Approximately 32% of the Town is included in an agricultural district.

The glacial history of Naples left it with broad deltas forming the headwaters of Canandaigua Lake as well as rounded forested hills and small valleys. The soils and terrain have made Naples a regional center for viticulture and large-scale wine production, traditionally dominated by Widmer Wines, now part of Canandaigua Brands. Smaller wineries and vineyards are developing in the area. Other agricultural operations in the area include dairy, poultry, hogs, and vegetables. Acreage in field crops is still the largest agricultural land use.

The Village of Naples is the southern terminus of the scenic Rt. 21 corridor that follows the western ridges of Canandaigua Lake. Wineries and grapes have been a major tourism draw flourishing around a number of grape-related festivals and special events. Farmers are developing U-pick fruit and berry operations in response to public demand. Naples is still generally considered too far from the Rochester area to feel significant residential development pressure.

Northern Ontario County

Towns of Victor, Farmington, Manchester, and Phelps (Villages of Victor, Manchester, Shortsville, Clifton Springs, and Phelps)

Overview

Geology and glaciation creates a distinct landscape divide through the northern Ontario County towns creating the ideal place for construction of the New York State Thruway I-90, the other defining feature of the region. North of the Thruway, are the drumlins, which are long hills ranging from 20ft. to 100ft. in height and are generally oriented north-south, interspersed with wetlands. South of the Thruway, the landscape is typically gently rolling. Prime farm soils are found throughout the area.

The transportation infrastructure which includes four interchanges on the Thruway, I490East, Rt. 332, and Rt. 96 paralleling the Thruway and proximity to Rochester and eastern Monroe County have made this area the focus of the most intense development in Ontario County. **Maintaining viable agricultural operations is particularly challenging in the face of suburbanization and escalating land values.**

Table 6. Profile of Agricultural Land in Northern Ontario County Towns.

Town	Total Acreage	Total Acreage in Ag Parcels - '92	Total Agricultural Acreage - '99	% Loss '92-'99	% Town Acreage in Ag Parcels - '92	% Town Acreage in Ag Parcels - '99
Farmington	25,252	16,627	14,037	16%	66%	56%
Manchester	22,647	15,091	14,863	2%	67%	66%
Phelps	40,588	27,049	26,480	2%	67%	65%
Victor	22,190	4,706	4,717	0%	21%	21%
Region Totals	110,677	63,473	60,097	5%	57%	54%

Source: N.Y. Real Property Data

Town of Victor (1990 Town Pop.4,883, 2000 est. Pop. 5,860 +7%)

Located in the northwest corner of the County, immediately adjacent to the fast growing suburbs of southeast Monroe County, **Victor has been the focus of the County's most intense residential and commercial/development.** The Town contains the Village of Victor. A major regional retail center as well as a growing high-technology and manufacturing area has made Victor one of the fastest growing towns in the Rochester metropolitan region. It has significant transportation infrastructure -- I-90/I-490 interchange and Rt. 251 and Rt.96 corridors leading directly to Rt. 332 which is presently being upgrade as a major corridor connection to Canandaigua.

Of the 22,190 acres in Victor, approximately 21% or 4,717 acres are in parcels classified as agricultural. Much of Victor lies in the Irondequoit Creek watershed giving it a distinctive landscape pattern of kames (irregularly shaped sand and gravel hills) that does not yield large tracts of prime farmland. Active farm operations are concentrated outside this area in the northeast and southern parts of the town. Agriculture in Victor is largely comprised of filed crops with some fruit, dairy and livestock operations. 21% of Victor is in an agricultural district.

Given the desirability and development pressure in Victor, farmers face the challenges of maintaining an economically significant agricultural land base, potential conflicts with new neighbors not accustomed to agricultural practices, and escalating land values.

Town of Farmington (1990 Town Pop.10,381, 2000 est. Pop. 11,315 +11%)

Farmington's landscape is shaped by the drumlin areas and wetlands north of the Thruway and gently rolling topography, typical of northern Canandaigua to the south. Of the Town's total acreage of 25,252, 14,037 acres are in agricultural classified parcels in 1999, a decrease of 16% from 16,627 acres in 1992.

Prime farm soils are located throughout the Town and 61% of the Town is an agricultural district. Agricultural operations in Farmington are largely comprised of field crops, livestock, and dairy. **Field crops and dairy operations are the largest use categories and also showed the largest decreases in land between 1992 and 1999 -- field crops by 42% and dairy by 64%.**

The transportation infrastructure of the town and its proximity to Victor have made it the object of significant residential and commercial development -- particularly in the southwest quadrant. The Rt. 332 corridor expansion links

Canandaigua, the Thruway and Rt. 96 with Victor. The areas north of the Thruway are in close proximity to Perinton in Monroe County and Macedon in Wayne County, which are experiencing development pressure from the Rochester region. Farmers face the challenges of maintaining an agricultural land base, potential conflicts with neighbors, and increasing land values.

Town of Manchester (1990 Town Pop.4,564, 2000 est. Pop. 4,518 0%)

Manchester's landscape is similar to Farmington to its west. North of I-90 New York State Thruway, the area is characterized by drumlins and wetlands interspersed with areas of prime farm soils. South of the Thruway, the landscape is gently rolling with prime farm soils. The Town contains the Villages of Manchester, Shortsville, and a portion of Clifton Springs.

Of the 22,647 acres in the Town, 14,863 acres were classified as agricultural in 1999 decreasing 2% from 15,091 acres in 1992. Approximately 82% of Manchester is included in an agricultural district. Field crops are the dominant agricultural land use with a few dairy operations.

Though Manchester has a Thruway interchange and the continuation of the Rt. 96 corridor, it is somewhat removed from the development pressure being experienced in Farmington and Victor. The interchange is located in close proximity to the Villages of Manchester and Shortsville and has not generated substantial development pressure. Clifton Springs has been experiencing redevelopment of its historic village center.

Some areas are seeing building of individual homes as farmland landowners subdivide individual lots. **Given that Manchester is a relatively easy commute to the Rochester area and if the eastward development trend continues, pressure on farmland owners to convert their land to other uses could significantly increase.**

Town of Phelps (1990 Town Pop.4,300, 2000 est. Pop. 4,515 +5%)

Phelps is located in the northeast corner of the County. The town shares landscape characteristics with both Manchester and the rich farming region to the south. As with the other northern Ontario County towns, the area north of the Thruway is characterized by drumlins and wetlands interspersed with prime farm soils. To the south lie extensive areas of prime farm soils with a relatively level to gently rolling terrain. **Of the total town acreage of 40,588, agricultural classified land accounts for 26,480 acres or 65% in 1999.** Phelps experienced a 2% decrease in agricultural land between 1992 and 1999. The Villages of Phelps and Clifton Springs (portion) are located in the Town.

Though field crops dominate agricultural land use in the Town with over 14,000 acres, Phelps has a diversity of other agricultural operations including dairy, livestock, and fruits and vegetables. Cabbage has traditionally been a major vegetable crop with the Village of Phelps hosting an annual Sauerkraut Festival.

The Thruway interchange that provides access to the City of Geneva lies at the eastern border with Rt. 96 paralleling the Thruway. Phelps has not experienced significant development pressure thus far. A feasibility study is currently underway for the construction of another interchange at Rt. 88 near the village of Phelps. The

presence of the Manchester and Geneva interchanges has not stimulated significant development pressure. This could change over time if the pattern of growth from southeastern Monroe County continues.

Eastern Ontario County

Towns of Hopewell, Gorham, Seneca and Geneva

Table 7. Profile of Agricultural Land in Eastern Ontario County Towns.

Town	Total Acreage	Total Acreage in Ag Parcels - '92	Total Agricultural Acreage - '99	% Loss '92-'99	% Town Acreage in Ag Parcels - '92	% Town Acreage in Ag Parcels - '99
Geneva	12,361	7,492	7,076	6%	61%	57%
Gorham	33,815	22,453	21,464	4%	66%	63%
Hopewell	22,849	17,464	17,069	2%	76%	75%
Seneca	32,140	28,872	27,708	4%	90%	86%
Region Totals	101,165	76,281	73,317	4%	75%	72%

Source: N.Y. Real Property Tax Data

Overview

Due to geology and glaciation, the towns of eastern Ontario County contain **the largest concentration of prime soils and consequently have some of the most productive land in the county and the state.** Compared to other parts of the county, the landscape is relatively level to gently rolling.

Though Rt. 5&20 linking the cities of Canandaigua and Geneva transects this area, significant development pressure has not been felt, in large part to its relative distance to the Rochester metropolitan area and the quality of the soil resource itself which gives farmers a diversity of agricultural opportunities. **Many critical businesses that support agriculture are located in this area** including equipment dealers, bean mills, a livestock auction house, and farm suppliers. These business not only serve farmers in Ontario County but the entire Finger Lakes region and are critical for maintaining viable agricultural operations.

Development pressure has been felt in the vicinity of Seneca and Canandaigua Lakes, which are becoming desirable locations for year-round residential development. The impact that the improvements to the Rt.332 corridor on development is an unknown. Ontario County is considering extending a sewer line from the landfill in Seneca to Canandaigua and Geneva. The scope and scale and the

feasibility of this project is currently being defined. If constructed, the presence of such infrastructure could present opportunities for development and potential pressure for conversion of farmland.

Town of Hopewell (1990 Town Pop.3,016; 2000 est. Pop. 3,318 +10%)

Hopewell is located in the east central part of the County and covers 22,849 acres. In 1999, 17,068 acres were classified as agriculture accounting for 75% of the town's land. Between 1992 and 1999 there was only a 1% decrease in agricultural land. Like northern Canandaigua, and Seneca and Phelps to its west, the landscape is relatively level or gently rolling. Approximately 83% of Hopewell is located an agricultural district. Field crops and dairy operations account for most of the agricultural land use.

Agriculture clearly dominates the Hopewell landscape. Transportation infrastructure presents the opportunity for farmland conversion. **Because of its proximity to the Rt. 332 corridor, the western part of the town could begin to feel more intense development pressure.** Rt. 21 in the northwest connecting Manchester (and the Thruway) with Canandaigua, along with Rt. 5 & 20 in the south also present similar avenues of development opportunity, especially when associated with other infrastructure. There is anecdotal evidence that some areas are beginning to experience an increase in land values in excess of agricultural value.

Town of Gorham (1990 Town Pop.3,296; 2000 est. Pop. 3,395 +3%)

Located in the south central part of the county, Gorham covers 33,815 acres with 21,464 acres classified as agricultural or 63% of town land. There was a 4% loss of land classified as agricultural between 1992 and 1999. Approximately 77% of the Town is within an agricultural district.

Prime farm soils are found throughout the Town's gently rolling landscape. Field crops are the predominant land use with some vegetable and dairy and livestock operations. **Contrary to a general trend of farm consolidation and larger farm operations, small farms (50-100 acres) are being sustained by an influx of Mennonite farmers** from Pennsylvania. The Town estimates that Mennonite farmland ownership accounts for almost 50% of all agricultural land providing a stabilizing influence over potential conversions to non-farm use.

The Canandaigua lakeshore is seeing some conversion of seasonal cottages to year round residences as well as some interest in new construction. There has been no substantive development pressure in the upland areas in recent years in large part due to the increasing ownership of land by Mennonites. Extreme northwest Gorham with its proximity to Canandaigua would be the area most likely to feel development pressure.

Town of Seneca (1990 Town Pop. 2,747; 2000 est. Pop. 2,774 +0%)

In a county so richly endowed with prime agricultural farmland, Seneca can be considered to have some of the best farmland in the County. **Of the town's 32,140 acres, 86% or 28,872 acres were classified as agricultural in 1999** with a 4% loss from 1992. This is the highest percentage of agricultural land use for any town in Ontario County. Approximately 90% of the Town is in an agricultural district. The landscape is relatively level to gently rolling with areas of muckland and wetlands.

Seneca supports a diversity of agricultural operations. Approximately 43% of agricultural acreage is devoted to vegetables, 41% to field crops, and smaller percentages to fruit and other crops and nursery operations. Some of the largest dairy operations in the County are located in Seneca. Unlike Gorham, **both dairy and other farm operations are growing in size and experiencing consolidations.**

Seneca has not experienced development pressure because it is not located within an easy commuting distance of the Rochester metropolitan area and does not have any Finger Lakes shoreline. The presence of the Seneca Landfill has also made parts of the town less desirable for development. **Extension of a sewer line to the landfill along Rt.5&20 coupled with the current availability of public water supply may increase the potential for development.**

Town of Geneva (1990 Town Pop.2,967; 2000 est. Pop. 2,997 +1%)

Geneva, the smallest town in Ontario County, covers 12,361 acres with 7,076 acres or 57% being classified as agriculture in 1999 -- a 6% loss in agricultural acreage from 1992. About 52% of the town is in an agricultural district. **The majority of the town has prime farm soils.**

Geneva's gently rolling countryside slopes to the east where it meets the Seneca Lake shoreline. Field crops comprise 81% of agricultural land with some fruit production and nursery/greenhouse operations.

Though primarily agricultural, Geneva has experienced suburb-style growth patterns as development from the City of Geneva moved to the west along the Rt. 5&20 corridor and CR6. A major retail complex is located along the Rt. 5&20 corridor. Residential development has also occurred to the west and north of the City. Typical lakeshore development is found along SR14. The economic vitality of the City of Geneva will be the greatest predictor of future pressure for conversion of farmland.

CHALLENGES FACING ONTARIO COUNTY AGRICULTURE

The agriculture industry in Ontario County faces considerable challenges and obstacles as it evolves from a conventional system to a new form of agriculture, which is more consumer-oriented, regionally connected and specialized. As the County becomes more urbanized, both internal and external pressures can weaken the economic feasibility of farming. Below is a description of the most significant impediments the industry currently faces.

Local/State Pressures

Maintenance of a Critical Mass

The term critical mass refers to the size of the market required to support a competitive agribusiness infrastructure. In the absence of a strong farm base, the market for agricultural services declines forcing the regionalization of agricultural support services. Local farmers must travel greater distances to secure needed services and products. The higher costs, loss of production time, and added inconvenience negatively impact the operation. Producers may become less inclined to invest in their operations and more susceptible to development pressure. If the number of active farms drops below a minimum level, collapse of all agricultural sectors and infrastructure may occur.

When analyzing critical mass, it's important to note that fewer large farms are less likely to require the same level of support services as more numerous, smaller farms (Washington County AFPB 1996).

Profitability

The profitability of agriculture is limited by low commodity prices, high production costs, marketing barriers, national and international competition (many with lower production costs and/or fewer regulations), and surplus. Other local issues that affect profitability of farmers in Ontario County include local development and taxation policies. Many producers are attempting to adapt their operations to address these challenges, but lack the resources to do so effectively or quickly enough.

Property Taxes

Property taxes in New York State are among the highest in the nation. Although property tax as percentage of farm income varies by farm sector, the average Ontario County farmer pays 43% of their net income to property tax (New York State Advisory Council on Agriculture 1996).

New York State relies heavily on property taxes to fund necessary community services. The current taxation policies, however, place an unfair burden on agricultural producers who rely on large land holdings but demand few public services.

When property taxes cut into profits, farmers in New York State are at a competitive disadvantage with producers from other states. High property taxes also distort land use decisions and negatively affect farmland's environmental benefits and contributions to Ontario County's quality of life.

Regulations

A number of current state and federal regulations add significant costs to farming in Ontario County. Workers compensation, unemployment insurance, zoning definitions, and numerous other regulations regarding migrant/seasonal workers have forced local producers to reduce their number of farm employees. Staff reduction force producers to work longer hours.

Some environmental regulations, although important to protecting water quality for the entire community, can place a large financial burden on individual farmers.

Economic Policies/Growth Initiatives

The inclusion of agricultural industry in County and State growth and development plans and initiatives is currently limited. Without staffing or program support for agricultural economic programs, or recognition for inclusion into general development efforts, the agriculture industry is at a disadvantage to other business types and has a limited role in local and State economic development initiatives.

Lack of Community Awareness

Overall, there is a lack of awareness among residents, leaders, businesses, and agency members regarding the economic, social, recreational, aesthetic, and environmental contributions that agriculture makes to the County. It is unlikely that meaningful changes in policy or long-term sustainability of local agriculture will be achieved without greater public appreciation and support of farmers' positive influence on the community.

Land Use Policies

When environmental characteristics, such as soil productivity, erodibility, floodplains, wildlife corridors, etc., are not defined and incorporated into local planning decisions, valuable resources can be lost or degraded with permanent harm to a community's identity and stature.

Farmland is sometimes subdivided without considering drainage, safe road access, or buffering the lots from adjacent agricultural operations. Without adequate subdivision regulations and site plan review, communities do not have the capability to assure site design that minimizes impacts on adjacent farmland.

In addition, many agricultural zoning districts are actually lower density residential districts with agriculture being an allowable use.

Land Use Decisions

Local land use decisions often focus on one small change or variation at a time. An individual decision may not be seen as significant but taken cumulatively, a town can be left with a crazy quilt development pattern, traffic congestion, the loss of farmland, and the very qualities and character that residents prized.

Non-Farm Development

Non-farm development in agricultural areas tends to increase the number of nuisance complaints and conflicts related to odors, dust, traffic, and other farm related occurrences. Rising residential development also increases the property tax burden on agricultural producers. This is due to additional level of public services required or demanded by the new non-farm population.

Low density, scattered residential development fragments large agricultural areas that are necessary for maintaining a critical agricultural mass and the County's agricultural infrastructure.

Extension of Public Utilities

The extension of public utilities into agricultural areas, particularly public water, is often the first step in converting agricultural land into residential parcels and blocks. If public sewers follow the extension of public water, the conversion to residential use is generally irreversible (Syracuse Onondaga County Planning Agency 1996).

Local Government Funding Options

Local governments are dependent on limited revenue sources -- primarily property taxes and sales tax -- to pay for local services. A town with extensive and significant prime agricultural land and a limited non-agricultural tax base has the choice of imposing a disproportionately high local property tax rate or diversifying their tax base to provide baseline services.

Choosing to encourage non-agricultural land use development can then trigger the spiral of increasing land values, infrastructure demands, and land use incompatibility that leads to the conversion of the very farmland that the town and county may want to protect.

Lack of Available Workforce

Customers are demanding food that is as fresh as possible. To meet this demand, more producers are raising fresh market crops than in past years. Because of the perishability of these fresh commodities, they must be picked by hand, which creates a demand for more agricultural labor.

However, most U.S. workers do not find these jobs desirable because they require a high degree of physical endurance and/or irregular hours. To overcome this shortage, producers secure less skilled labor, labor with questionable citizenship or labor from

off shore countries. These options require compliance with extensive federal regulations.

Estate Taxes

Farmland is valued at its highest and best use for state and federal estate tax purposes. As a result, the development potential of land determines its value. Conveying farmland from one generation to the next often inflicts highly adverse estate tax consequences on the new landowner. In some cases, the estate tax can be so high that it essentially prohibits the transfer of the farm from one generation to the next.

Wildlife Damage

Although many farmers provide wildlife habitat and recognize the value of wildlife diversity to local communities, crop damage and economic loss can be commonplace among farm businesses in communities with excessive wildlife populations. Especially in areas that have experienced residential growth, the difficulty in controlling certain wildlife populations (e.g. whitetail deer), is compounded. Statewide, nuisance wildlife causes over \$100 million dollars per year in damages (Farm Bureau 2000).

Limited Recognition for Change

Some producers within the agricultural industry do not recognize the opportunities or resources necessary to adapt or develop their business in order to thrive and compete in today's market. Without support or leadership, it can be difficult for producers to explore new or different opportunities when maintaining current production is so challenging and time consuming for current farm operations.

National/Global Pressures

In addition to local pressures, of which the County and its residents can address more readily, there are also a number of pressures that are driven by national or international conditions and policies that local farm businesses are affected by.

Economies of Scale

The small and midsize family farm operations that are prevalent in Ontario County cannot fairly compete with large-scale and global production, marketing, and distribution systems that currently exist. As local agricultural supply/support businesses are lost to national or international corporations, it can lead to difficulty in obtaining supplies and higher cost for running the business.

Seasonality and Competition

The inherent seasonality of vegetable and fruits puts Ontario County producers at a competitive disadvantage with other areas in the country or the world that can

supply produce year-round. Wholesale and retail produce suppliers are reluctant to contract with Ontario County producers because their lack of a steady 12-month supply.

Federal Food Policies

Federal food security policies allow our nation a plentiful supply of food at relatively low prices, which results in low farm profits for traditional small and medium sized farms. On average, farmers only capture approximately 30 cents of every dollar spent by consumers on food (USDA Agricultural Statistics 1997).

Disincentives for Farming

The various pressures and constraints explained above create cumulative effects, which negatively impact the short and long-term viability of farming in Ontario County. These disincentives that farmers currently face include:

- Decreased profit margins
- Inhibited confidence in financing new farming investments
- Lack of farm capital and/or credit to finance farm ownership
- Low income potential for financial risks involved
- Difficulty in obtaining supplies and high cost of inputs
- Unstable market prices
- Land and property taxes that place undue burden on farmers
- Decrease in number of farm family successors
- Increased prices for farmland resulting from speculation for land development
- Apathy and complaints from rural residents who live near farms
- Lack of public support for agriculture industry

OPPORTUNITIES FOR ONTARIO COUNTY AGRICULTURE

Although the agricultural industry of Ontario County faces considerable challenges as it strives to adapt to new economic, social, environmental circumstances, it also has a number of characteristics that provide advantages to create new opportunities.

Tourism

Tourism is a growing industry in Ontario County. As tourism grows, opportunities for agricultural enterprises to supplement their farm income by linking with other local tourism destinations also grows. Examples of agri-tourism include: primitive camping, U-pick, boat/canoe rentals, hay rides, nature walks, riding arenas, farm vacations, hunting, petting zoos, sleigh rides, orchard tours, snowmobile trails, farm museums, cut your own Christmas trees, fishing, swimming, boarding pleasure horses, bed and breakfast, etc.

Proximity to Urban Markets

Because of Ontario County's proximity to the Rochester, Syracuse, and metropolitan areas, including New York City, there is an opportunity to capitalize on the ethnic and densely populated markets these cities provide.

Diversity

The diversity of the agricultural commodities and items that Ontario County produces makes it less susceptible to market fluctuations and other internal/external conditions. Building on this diversity will make the overall industry, as well as some individual operations, stronger.

Small Scale Food Processing

Small scale food processing has enjoyed dramatic resurgence in recent years. Opportunities for small processors to produce regional and specialty products (e.g. cider, jams, sauces, etc.), which adds monetary value to their commodities, is likely to continue to grow.

Food Venture Center

The New York State Food Venture Center, located at the Agriculture Experiment Station in Geneva, is an excellent resource that Ontario County has in its own backyard. The Food Venture Center assists entrepreneurs in starting new food manufacturing businesses. It seeks to provide opportunities for small processors, despite the trend towards larger processors.

Cooperatives

Cooperative business arrangements have also found resurgence in recent years. By forming or joining a cooperative to process, market, purchase, or distribute, smaller or mid-size farm businesses are better able to compete with large, industry farms. USDA funding and technical assistance for developing cooperatives has increased in recent years.

Wine Industry

The wine industry in the Finger Lakes region is a prime example of successful agricultural economic development. The strength of the industry and connection it created with tourism in other counties offers an opportunity for Ontario County grape producers to connect with.

GOALS FOR ENHANCING AGRICULTURE IN ONTARIO COUNTY

The Ontario County AEB has determined that land use controls alone will not maintain its farmland and critical mass of the agricultural community. Economically strengthening agriculture enterprises, increasing public awareness about the importance of agriculture, and gaining supportive local public policies provide the most effective and affordable means to enhance agriculture and sustain farmland.

Goal 1 -- Enhance agricultural economic development.

Strengthen the economic viability of farm business through programs of education, business retention and expansion, and development of diverse agricultural enterprises.

Goal 2 -- Increase the awareness of the economic and social importance of agriculture.

Create a high level of awareness and knowledge by County residents, businesses, and community decision-makers about numerous economic, social, and environmental benefits that farmers and their businesses provide the County.

Goal 3 -- Examine and adjust local government policies to protect farmland and enhance agriculture.

Provide a supportive climate for continuation of farming through County and town land use and taxation policies that minimize disincentives for farming, preserve prime farmland, and make Ontario County “farmer friendly”.

Goal 4 -- Acknowledge and enhance the environmental stewardship of farmers.

Increase public awareness of the investments and positive changes that farmers are making to protect environmental quality. Provide tools for farmers to implement best management practices.

RECOMMENDATIONS

The following outline of strategies serves as an initial attempt to identify a range of options to address the long-standing and emerging needs of the County's agriculture industry and its farmland resources. It is suggested that the Ontario County Agriculture Enhancement Board form task groups to discuss, research, evaluate and prioritize the feasibility of implementing these options.

The task, or working groups should include AEB members, representatives of organizations, government, businesses, and individuals in the community who are interested in supporting agriculture and protecting farmland.

Strategies for Enhancing Agricultural Economic Development

Farm business planning, development, and transitioning

Technical Assistance

- **Continue and expand educational programs for individual farm owners by addressing business management topics of concern** (business plans, debt reduction, etc.). Work with existing educational institutions such as CCE, FLCC, BOCES, and the Small Business Administration to develop and/or modify existing business development curricula and workshops to address timely and pertinent issues facing farm managers.
- Provide assistance in arranging **multiple owner arrangements**. A small but increasing trend in agriculture is for a farm to have multiple owners that are not all-family members. Educational and technical assistance in setting up these arrangements would facilitate success of these arrangements.

Farm Business Transition/Transfer Planning

- **Provide educational opportunities on estate planning and business organization alternatives for farm owners**. Work with existing educational institutions and the private sector (accountants, financial planners, and attorneys) to develop workshops addressing the particular issues of tax planning, intergenerational transfer, etc., unique to farm business owners. Increase awareness of FarmNet, a Cornell University program that provides numerous support services to farmers, including information on estate planning issues.
- **Promote awareness of and participation in the state-funded FarmLink program** administered by Cornell University. This program 1) connects farmers planning for retirement or leaving farming with persons who want to enter the business and, 2) provides technical assistance needed to facilitate the transfer.

-
- **Promote/market Ontario County farming opportunities** both in state and out-of-state. Network with real estate community to market farmland for agricultural use. In the long term, use Ontario County's Agricultural Enhancement Initiatives to promote/market Ontario County as "farmer-friendly and a good place to do business".

Site Development Planning for Farmland Owners

- **Conduct educational workshop on land development planning** for farmland owners interested in generating revenue through subdividing their land. The workshop would provide information on creating a whole farm site development plan that generates revenue and creates development compatible with farming operations. Topics include site analysis, operational farm needs, identification of suitable types of development, build-out strategies, working with local planning officials, etc.

Integrate agriculture in State and local economic development initiatives

Economic Development Needs Assessment and Strategic Plan

- **Inventory existing federal, state, county and local economic development programs and their applicability and/or suitability for agricultural business development.** Define the specific economic development needs of agriculture-related businesses (the farm operation and farm support service enterprises) and opportunities to partner with other business sectors. The Cornell Agricultural Industry Development, Enhancement and Retention (AIDER) program involves a comprehensive process which can accomplish this assessment while developing strategic plans and building community capacity to sustain growth and development. Agri-Edge Development and NY Agri-development Corp are examples of successful agri-business partnership programs.
- **Develop a strategic plan for agricultural economic development in Ontario County** that addresses the needs identified above, including funding availability and infrastructure/critical mass requirements.

Market, promote, and develop local agricultural products

- Assist farmers in developing **marketing plans, identifying marketing opportunities, niche markets, etc.**
- Encourage implementation of the **western New York "Buy Local" campaign.**
- Identify areas underserved by **farm markets** and conduct market research to ensure locations can support a viable market.
- Increase sale of **locally grown produce in supermarkets.** Provide a list of

local growers and products to the supermarket produce buyers to facilitate local purchases. Continue to supply consistent high quality products while expanding the variety of products purchased.

- Support and expand existing **farm promotional materials, brochures**, etc. This would include farm stands, pick your own, farm nurseries, farm tours and other farm products/services.
- Encourage **small scale food processing opportunities** that will be available through the New York State Food Venture Center at the Geneva Experiment Station.
- Examine development of local **Community Supported Agriculture (CSA)** operation(s) and a **restaurant/farmer network**.
- Look to **cooperative farmer arrangements**.

Develop agricultural workforce

- **Identify educational needs of the farm operator and employees** and work with existing educational institutions such as CCE, FLCC, BOCES, SUNY, etc. to develop or modify curricula to meet needs.
- **Utilize existing business training programs and resources** such as the Small Business Retention Program, SCORE, and Worker/Owner Resource Center.
- **Support agricultural education and School-to-Work programs** that include agricultural career exploration.

Strategies for Increasing the Awareness of the Economic and Social Importance of Agriculture

Educate Non-Farm Public

Programs

- **Develop "speakers bureau"** comprised of farmers, agriculture professionals, educators, government agency staff, etc. to be available to make presentations to community groups, forums, etc. on agriculture, farmland preservation, etc. The Farmland Protection Action Kit can be a resource used by presenters.
- **Provide county and local elected and appointed officials with education opportunities** such as farm and agri-business tours, workshops, other special events highlighting agricultural environmental programs, new farming technology, agri-tourism, etc.
- **Utilize the county fair as a key public education and outreach opportunity** for the non-farm public. Continue to encourage 4H-program participation among non-farm youth.

Deliverable Materials

- **Develop a video** educating the non-farm public about agriculture in Ontario County addressing the economic, environmental and social contributions agriculture makes to the community.
- **Develop an Ontario County Agriculture web site** that provides education on farming, agri-tourism, farm markets, agricultural environmental protection, etc. with links to state and other regional resources.

Strategies for Examining and Adjusting Local Policies To Protect Farmland and Enhance Agriculture

- Have the **County Board of Supervisors endorse this plan** as a statement of commitment to protecting and enhancing agriculture in Ontario County.
- **Provide educational materials and training to town officials on the NYS Agricultural District program** so that it can be effectively implemented.

Infrastructure development

Impact Assessment

- **Promote full consideration of infrastructure expansion (water, sewer, natural gas, road improvements, etc.) impacts** on expanding non-agricultural development in agricultural areas, particularly in agricultural districts. Coordinate capital improvements with town comprehensive plan objectives related to maintaining rural character or preservation of agriculture.
- **Continue to utilize the Notice of Intent review process** conducted by the AEB under the provisions of the NY Agriculture and Markets Law as a tool to minimize the negative impacts of infrastructure expansion on maintaining viable agriculture.
- **Identify and promote strategic infrastructure improvements that are critical for agricultural** -- those necessary for movement of equipment or product such as bridge or road improvements, rail service and other transportation links.
- **Encourage cost-effective, small, community-scale infrastructure improvements** such as alternative wastewater treatment systems that address environmental and public health needs.

Land use

Technical Assistance for Local Governments

- **Update Ontario County Planning Dept. local planning and zoning training materials** to include a component on farmland preservation and promote on web site (www.co.ontario.ny.us/planning/training.html).
- **Develop a Farmland Preservation Guide for Ontario County Towns** that will provide a comprehensive community approach for planning issues. The guide will address topics such as incorporating farmland preservation into comprehensive plans, model farmland protection ordinances, and local right-to-farm laws.
- **Research impact of local zoning/land use regulations** on 1) provision of housing for seasonal farm workers, 2) home-based business development, 3) on-farm small-scale processing facility development, 4) agri-tourism operations such as bed and breakfasts, etc.

Agricultural Conservation Easement Initiatives

- **Establish priorities for protection and preservation of farmland at the local level.** Towns developing programs should consider factors such as the following when establishing priorities for protection and preservation:
 - 1) Prime and unique agricultural soils;
 - 2) Participation in an agricultural district;
 - 3) Presence of other natural and /or cultural resources important to the community;
 - 4) Proximity to other farmland;
 - 5) Proximity to land uses that minimize the potential for neighbor conflicts;
 - 6) Land that provides buffering for parks or critical open spaces;
 - 7) Proximity to development infrastructure;
 - 8) Development pressure;
 - 9) Importance in maintaining a viewshed, and;
 - 10) Maintaining a critical mass of farmer-owned farmland.
- **Develop a "how to" guide for towns interested in establishing an Agricultural Conservation Easement Program** that addresses both permanent and temporal easements.
- **Explore opportunities for partnerships between organizations with expertise in farmland preservation** such as the Farm Bureau, the American Farmland Trust, the Finger Lakes Land Trust, landowners, and local and county governments.

Local Government Finance Impacts

- **Undertake an analysis of local government revenue sources, including property and sales taxes and the impact they have on land use**

decisions. The analysis could determine the extent that generating revenues provide government services and how they influence land use decisions, including the conversion of productive agricultural farmland.

- Inventory alternative local government finance and revenue options.

Planning review and coordination

County Referral Review Process

- **Utilize the 239 Referral Review Process** conducted by the County Planning Board to evaluate potential present and future impacts on agriculture of a project or action under review. The County Planning Board and the Agricultural Enhancement Board can work together to develop review criteria.

Strategies for Acknowledging and Enhancing Environmental Stewardship of Agricultural Businesses

- **Support and expand voluntary programs and practices** such as AEM, rotational grazing, IPM, development of nutrient management plans, etc. Provide incentives when possible.
- **Expand the "Lake Friendly Farmer"** developed in cooperation with the Canandaigua Lake Watershed Agricultural Program to other lake or river watersheds in the county. The signage placed on participating farms is an excellent public relations and education tool that builds good relationships with non-farm neighbors.
- **Conduct a public information and education campaign** on the positive role farmers following sound environmental agricultural practices play in protecting water quality, preserving wildlife habitat, and conserving soil resources.

REFERENCES

- American Farm Bureau Federation. 1997. *Farm Facts*. Park Ridge, IL.
- Census of Agriculture. 1992. *New York State and County Data*. U.S. Department of Commerce, Economics and Statistics Administration. Bureau of Census.
- Census of Agriculture. 1997. *New York State and County Data*. U.S. Department of Commerce, Economics and Statistics Administration. Bureau of Census.
- Cosgrove, Jeremiah. 1994. "Farmland Pays Its Way: A Review of Cost of Service Studies." *In: Farming on Taxed Ground Conference Proceedings*. New York Farm Bureau, American Farmland Trust, and NYS Legislative Commission on Rural Resources, Syracuse, New York.
- Eswaran, H. 2000. Personal communication with co-editor, M. Rudzinski, February 15, 2000.
- Eswaran, H., Beinroth, F., and Reich, P. 1999. *Global Land Resources and Population-Supporting Capacity*. American Journal of Alternative Agriculture. Vol. 14.
- Hirsch, Thomas, and Nelson Bills. 1993. *Non-farm rural population growth and farmland use in New York*. Policy Issues in Rural Land Use Issues. Vol.6, No. 2. Department of Agricultural, Resource and Managerial Economics. Cornell Cooperative Extension.
- Jack, Kevin, Nelson Bills, and Richard Biosvert. 1996. *Policy Issues in Rural Land Use Issues*. Vol.2, No. 2. Department of Agricultural, Resource and Managerial Economics. Cornell University.
- Knoblauch, Putnam and Stanton. *Census of Agriculture Highlights*. 1997 New York State. Department of Agriculture, Resource, and Managerial Economics. Cornell University.
- New York Farm Bureau. 2000. *Wildlife Management*. State Priority Issue 2000 position statement. Glenmont, NY.
- New York State Advisory Council on Agriculture. 1996. *Farm Property Taxes in New York State*. New York.
- New York State Agricultural Statistics Service. 1996-1997. *New York Agricultural Statistics*. New York State Department of Agriculture and Markets. Division of Statistics.
- Onondaga County Farmland Protection Board. 1997. *Onondaga County Agricultural and Farmland Protection Plan*.

Real Property Tax Data. 1988-1999. New York State, Ontario County. Ontario County Planning Department.

Smith, S. et al. 1994. Dairy Farm Business Summary, Central New York Region. Cornell University, Ithaca, New York.

Syracuse Onondaga County Planning Agency. 1996. *Farmplans and Policies for the 2010 Plan*. Leslie Monostory. Syracuse, New York.

USDA Soil Conservation Service. 1978. Map of Important Farmlands, Ontario County, New York.

USDA Soil Conservation Service. Soil Survey of Ontario County New York.

USDA National Agricultural Statistics Service. 1997. Census of Agriculture. Vol 1.

USDA Natural Resources Conservation Service. 1999

Wagner, David. 1996. Economic Impact of Agriculture in Onondaga County. Cornell Cooperative Extension. Syracuse, New York.

Wagner, Robert. 2000. Presentation at American Farmland Trust Workshop. *Purchasing Development Rights on Farmland: How to Set-up and Manage PDR Projects and Programs*. Batavia, New York.

Washington County Agriculture and Farmland Protection Board. 1996. *Washington County Agricultural and Farmland Protection Plan*. New York.

GLOSSARY OF TERMS

Agricultural Assessment Value - A real property assessment provision of the New York Agriculture District Law. The value per acre assigned to agricultural assessment purposes by the capitalized value of its agricultural productive value instead of "best use value" value.

Agri-Business - Any business that provides products or services generally directed toward the support of agricultural production, marketing and distribution of its products.

Agricultural District - Locally designated farming areas that receive protective benefits under New York State Department of Agriculture and Markets Law. County Agriculture & Farmland Protection Boards make recommendations to County and State government for establishment, modification and continuation of districts.

Agricultural Conservation Easement - A voluntary legally binding agreement, usually permanent, between a landowner and a unit of government or land trust, on a property that protects the land for agricultural use. The land remains in private ownership and on the tax rolls.

Agricultural Economic Development - Programs and initiatives that support enhancing viability of agricultural business.

Bio-diversity - A concept referring to native life forms existing in their natural, dynamic balance.

Commodity - A raw agricultural product that has established a large-scale market.

Community Cluster - A planning term that prescribes the residential dwellings (single and multi-family housing) are constructed within close proximity to each other within a community designed to share a theme of high environmental and ecological standards.

Comprehensive Plan - A community-planning document that identifies resources, describes current use of resources and prescribes future utilization of resources.

Development - The improvement of land by construction or infrastructure, housing, commercial, industrial or uses other than agricultural production.

Micro-Enterprise - An agricultural enterprise that operates on less than twenty-five acres of land. The majority of these businesses operate on less than five acres.

Open Space - Usually refers to land areas undeveloped and in their natural state. The term also refers to variations of woodlands, fields and pastures that are viewed from roadsides.

Prime Farmland - USDA broadly defines this term as those soils best suited for producing food, feed, fiber, forage crops, or forests. It possesses sufficient soil quality, growing season, and moisture supply needed to produce sustained high yields of crops when treated and managed according to acceptable farming methods.

Purchase of Development Rights (PDR) - A land preservation program in which rights to develop the lands are sold, usually to a public entity. An easement permanently (or for a term) restricts land to agricultural use, but does not require that active farming continue. Assessed value of the land is reduced to the agricultural value and the farmland owner, without restriction, may use cash payments.

Quality of Life - Aspects of a community that make it appealing as a place to live, such as; open space, cultural, educational, goods and services, employment, recreation, safety, etc.

Value-added - Monetary value that is added to an agricultural product through processes that enhance its usefulness or appeal to the consumer (e.g. wine, salsa).

Viability - Capacity to attract investment of capital or commitments of human resources.

Watershed - Land area that surrounds and drains into a lake, stream or pond.

ACRONYMS

AEB – Agriculture Enhancement Board

AEM – Agriculture Environmental Management

AIDER – Agricultural Industry Development, Enhancement and Retention

BMP – Best Management Practice

CCE – Cornell Cooperative Extension

CSA – Community Supported Agriculture

gpm – gallons per minute

IPM – Integrated Pest Management

NRCS – Natural Resource Conservation Service

NYSDEC – New York State Department of Environmental Conservation

NYS DAM – New York State Department of Agriculture and Markets

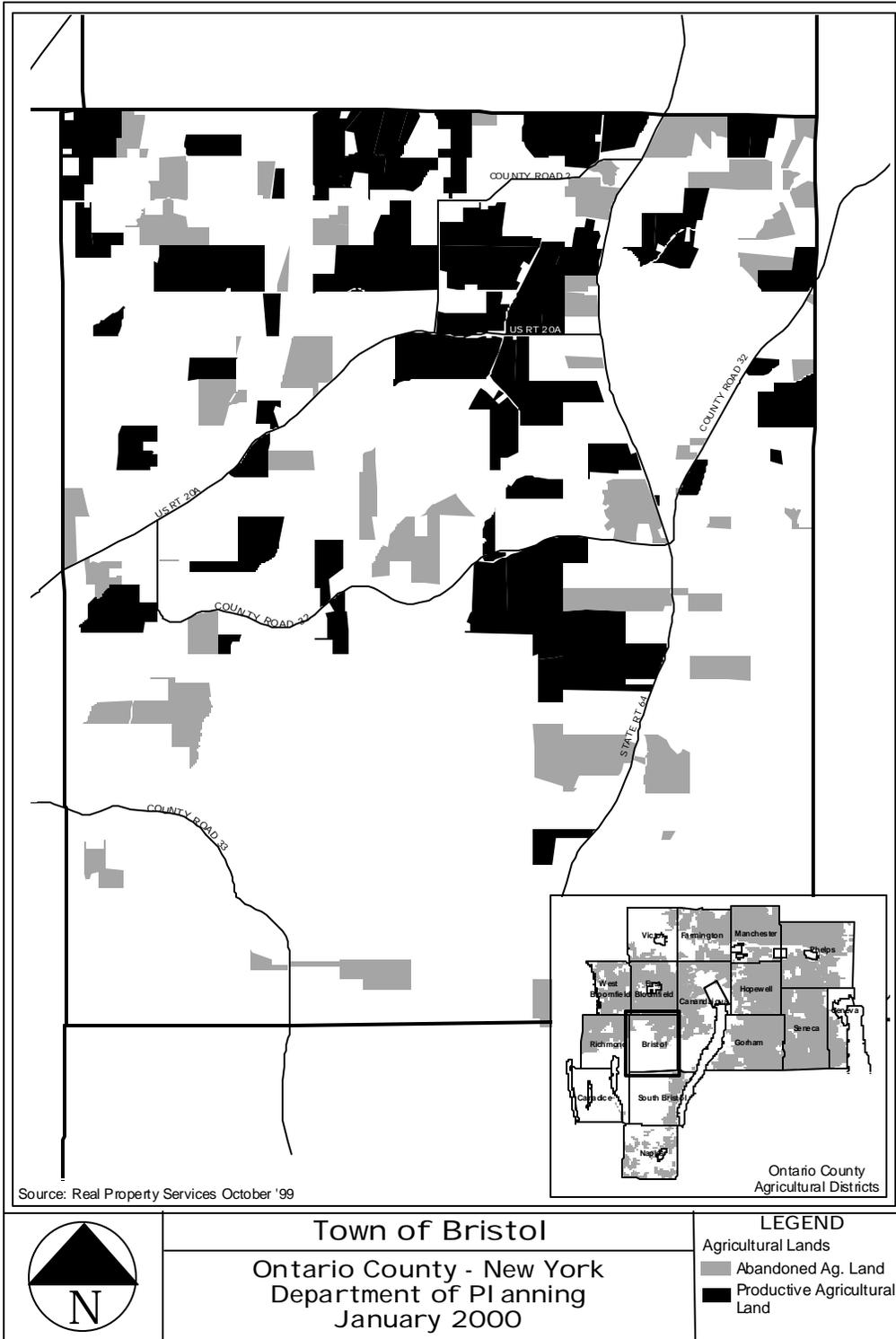
NYS DOH – New York State Department of Health

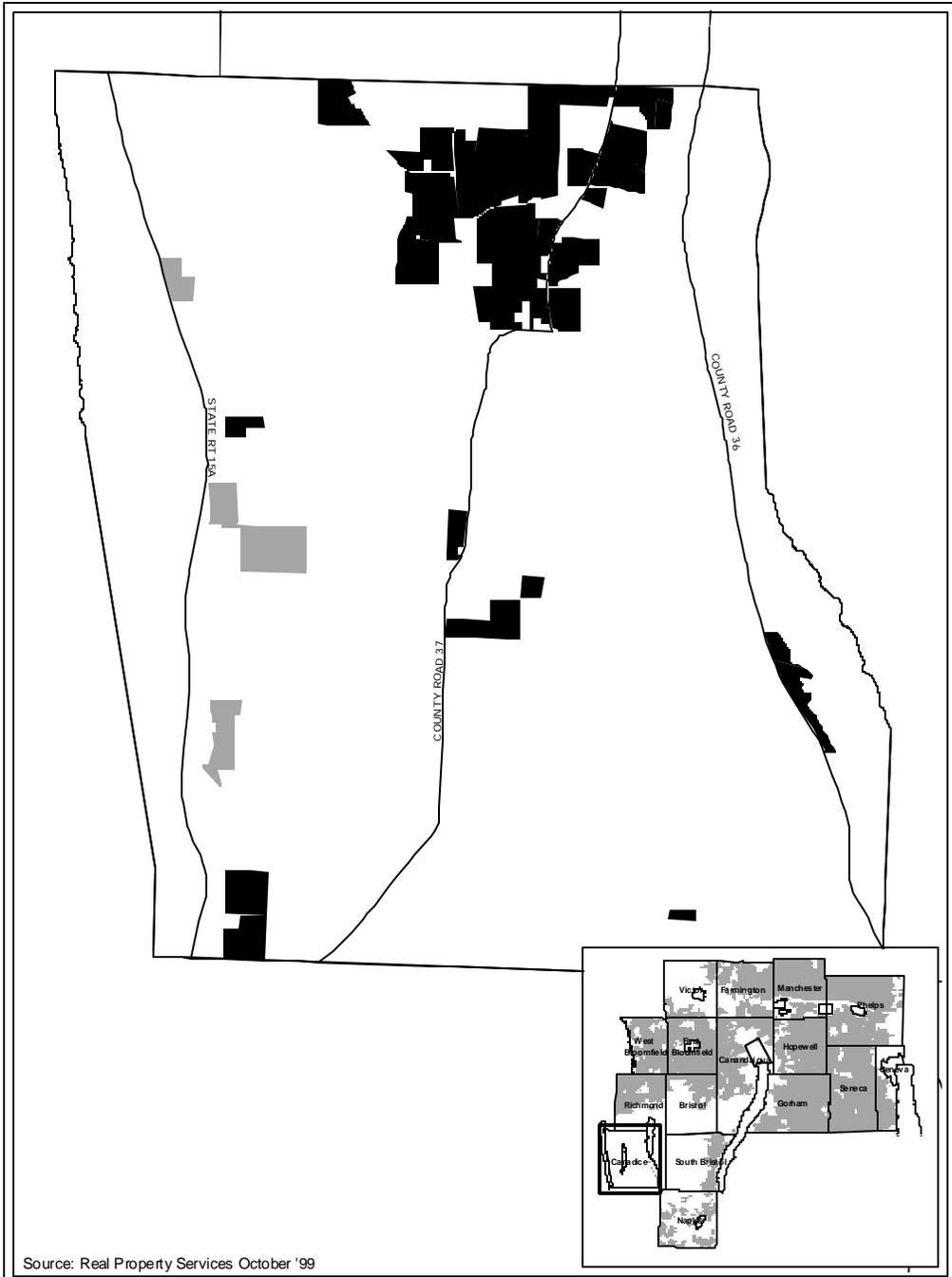
SWCD – Soil & Water Conservation District

USDA – United States Department of Agriculture

APPENDIX A – AGRICULTURAL DISTRICTS MAP

APPENDIX B --TOWN MAPS



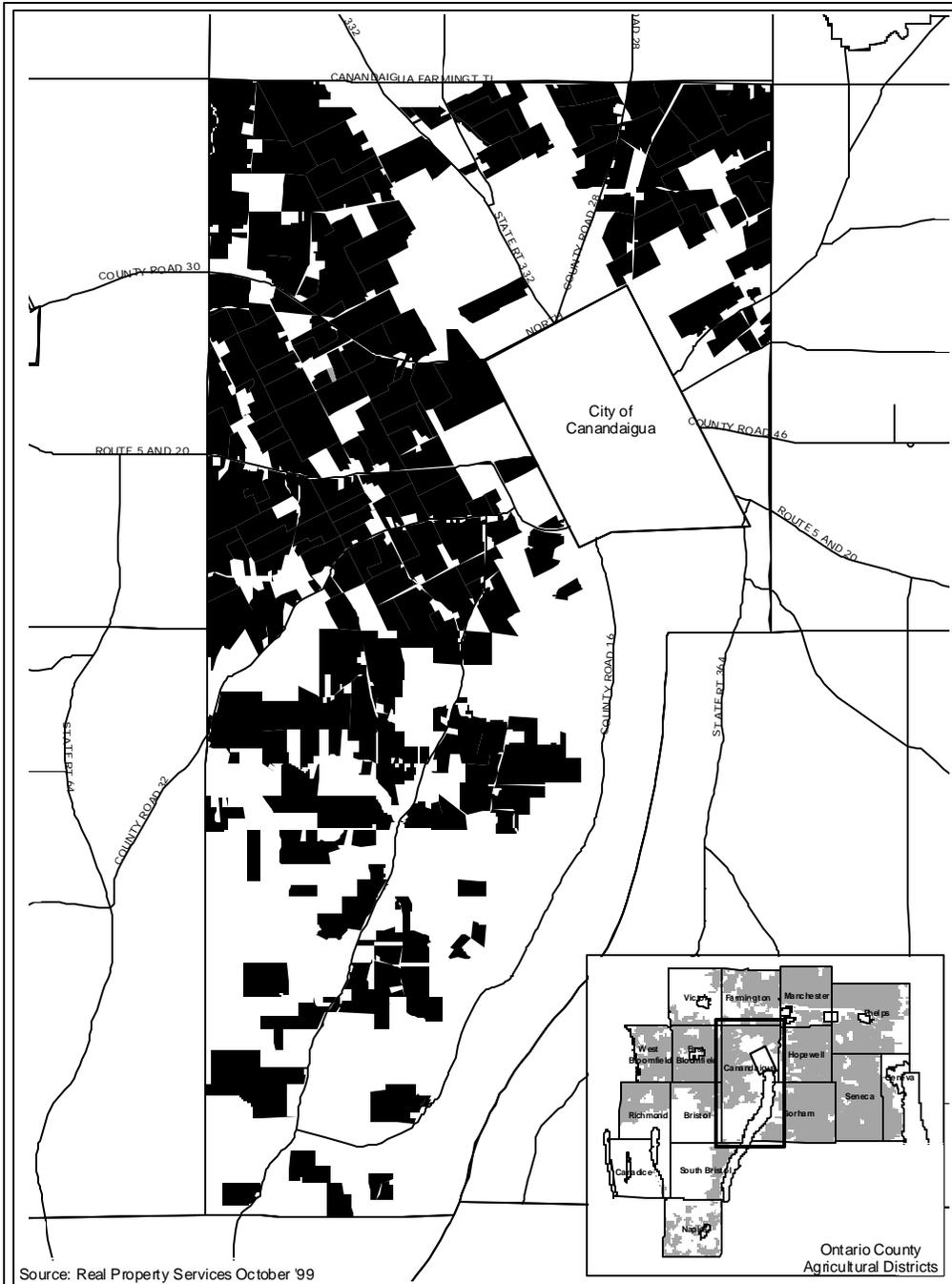


Source: Real Property Services October '99



Town of Canadice
 Ontario County - New York
 Department of Planning
 January 2000

LEGEND
 Agricultural Lands
 Abandoned Ag. Land
 Productive Agricultural Land

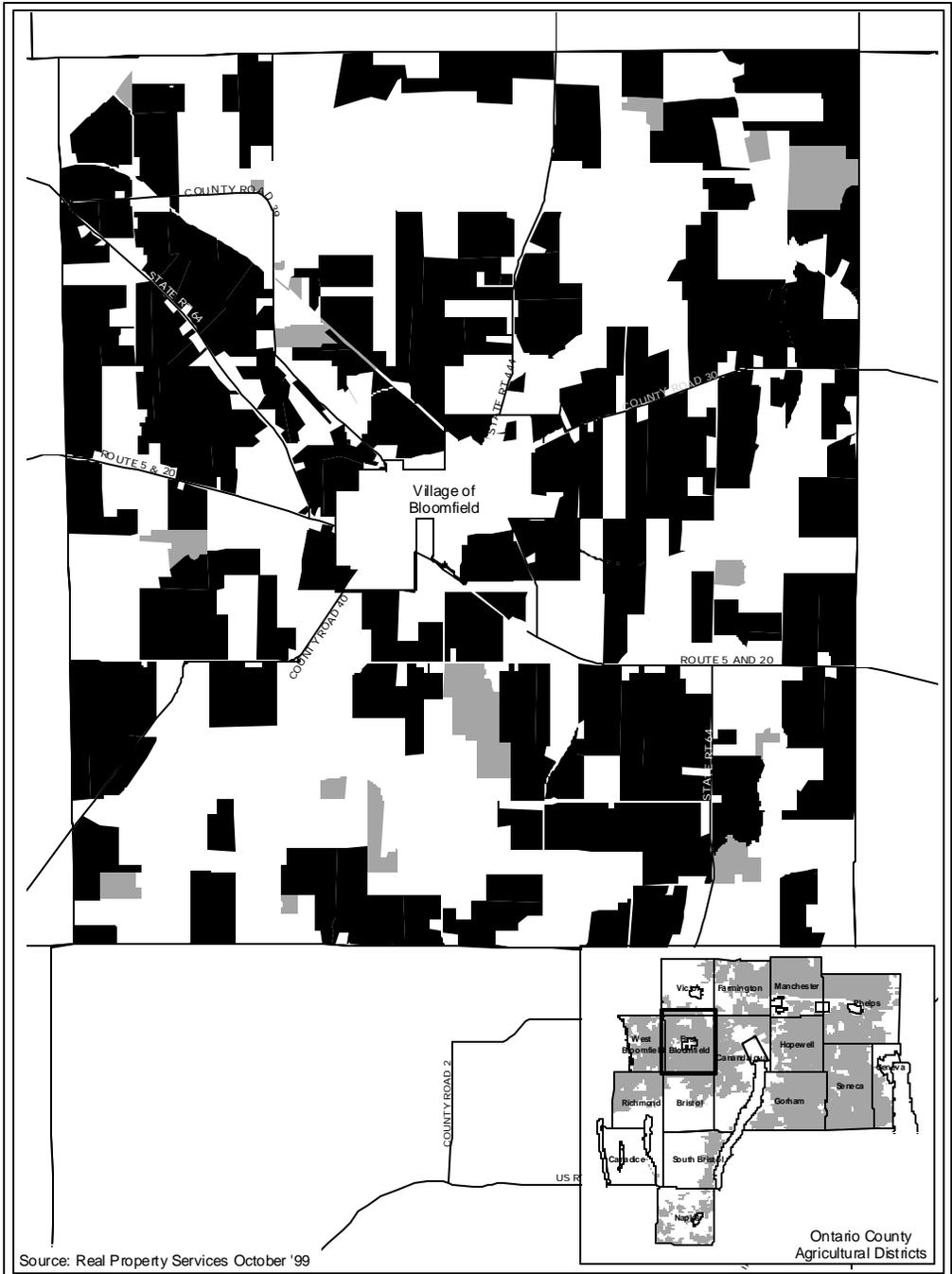


Source: Real Property Services October 99



Town of Canandaigua
 Ontario County - New York
 Department of Planning
 January 2000

LEGEND
 Agricultural Lands
 Abandoned Ag. Land
 Productive Agricultural Land



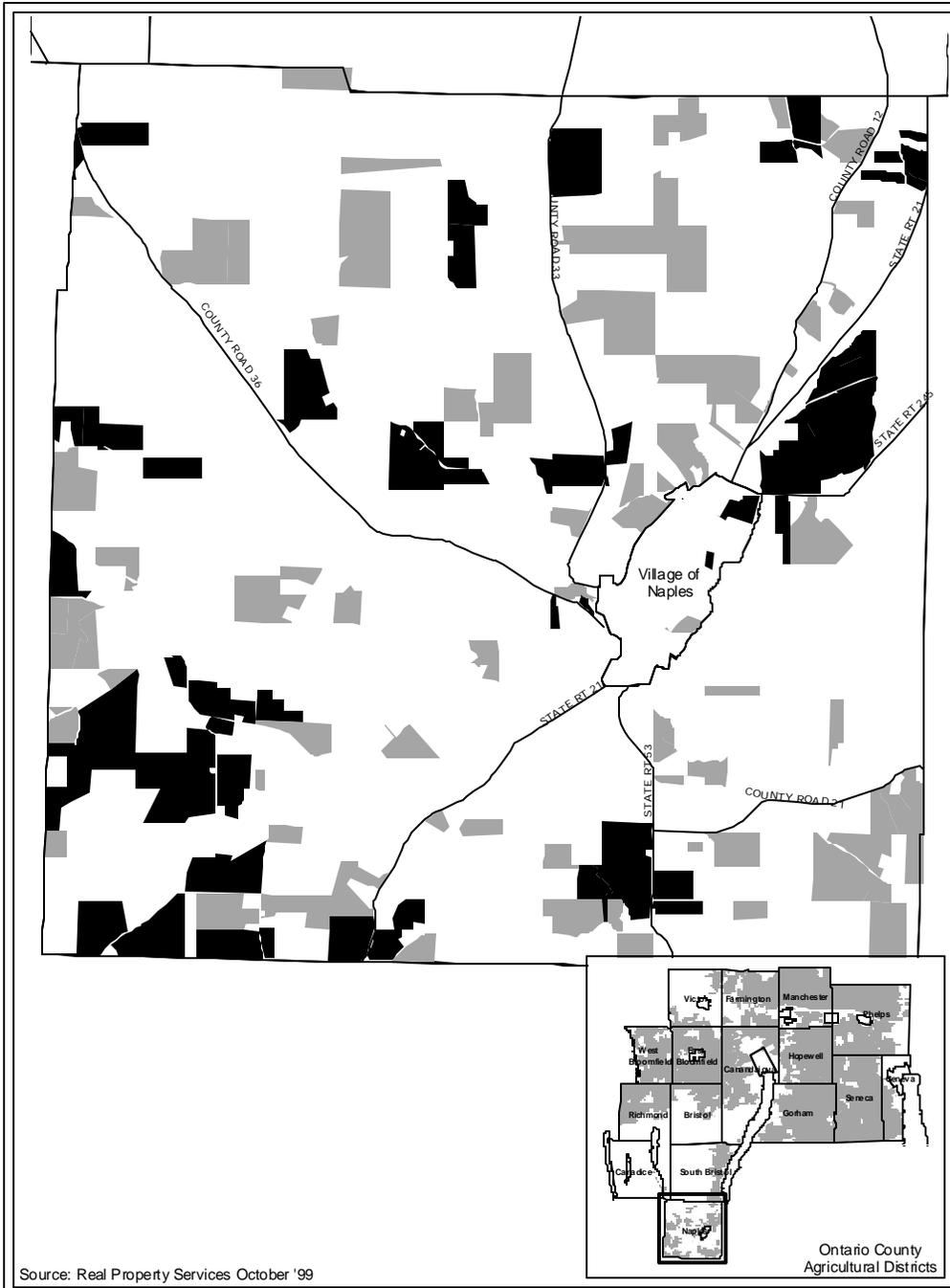
Source: Real Property Services October '99

Ontario County
Agricultural Districts



Town of East Bloomfield
 Ontario County - New York
 Department of Planning
 January 2000

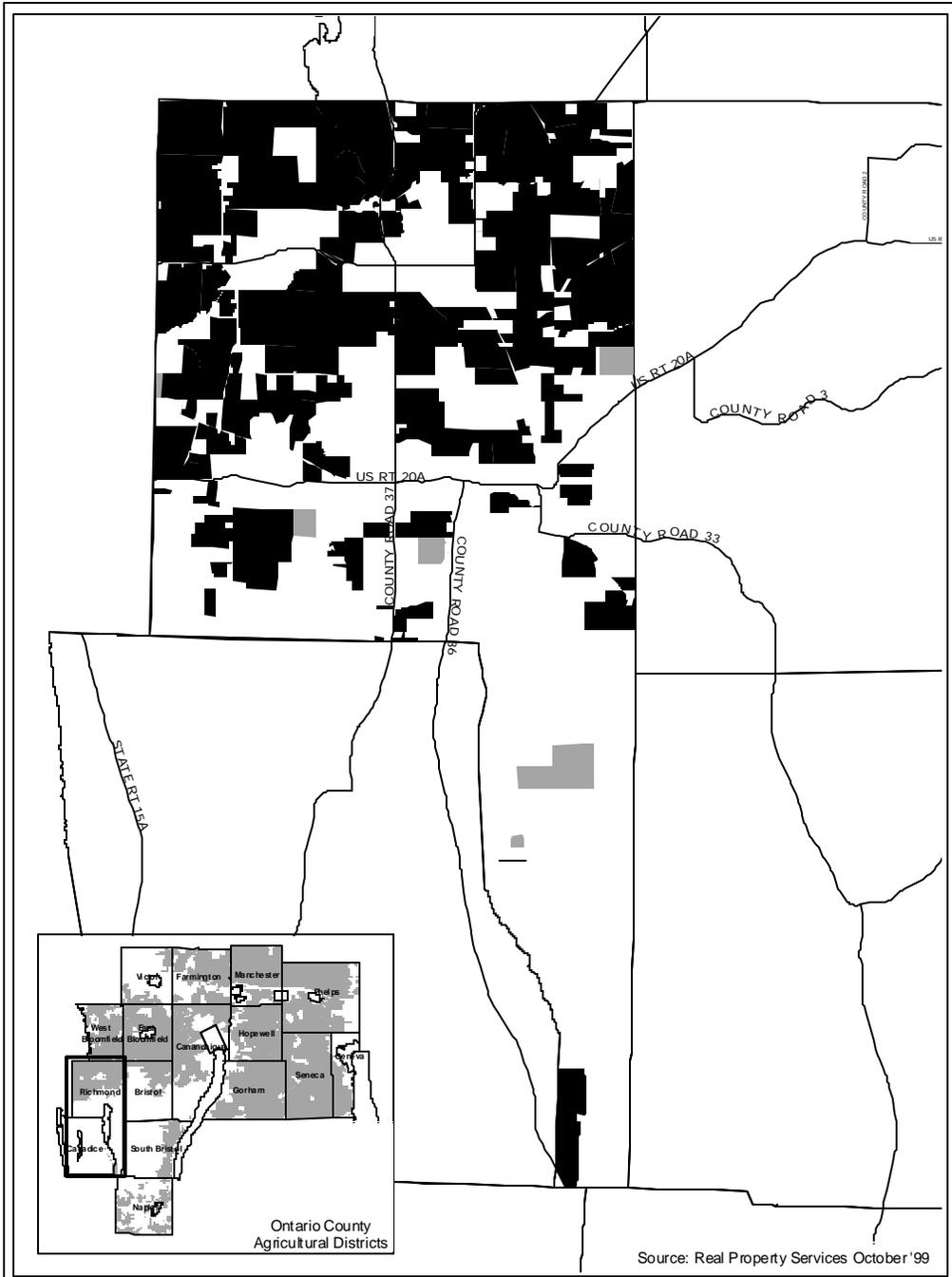
LEGEND
 Agricultural Lands
 ■ Abandoned Ag. Land
 ■ Productive Agricultural Land



Source: Real Property Services October '99

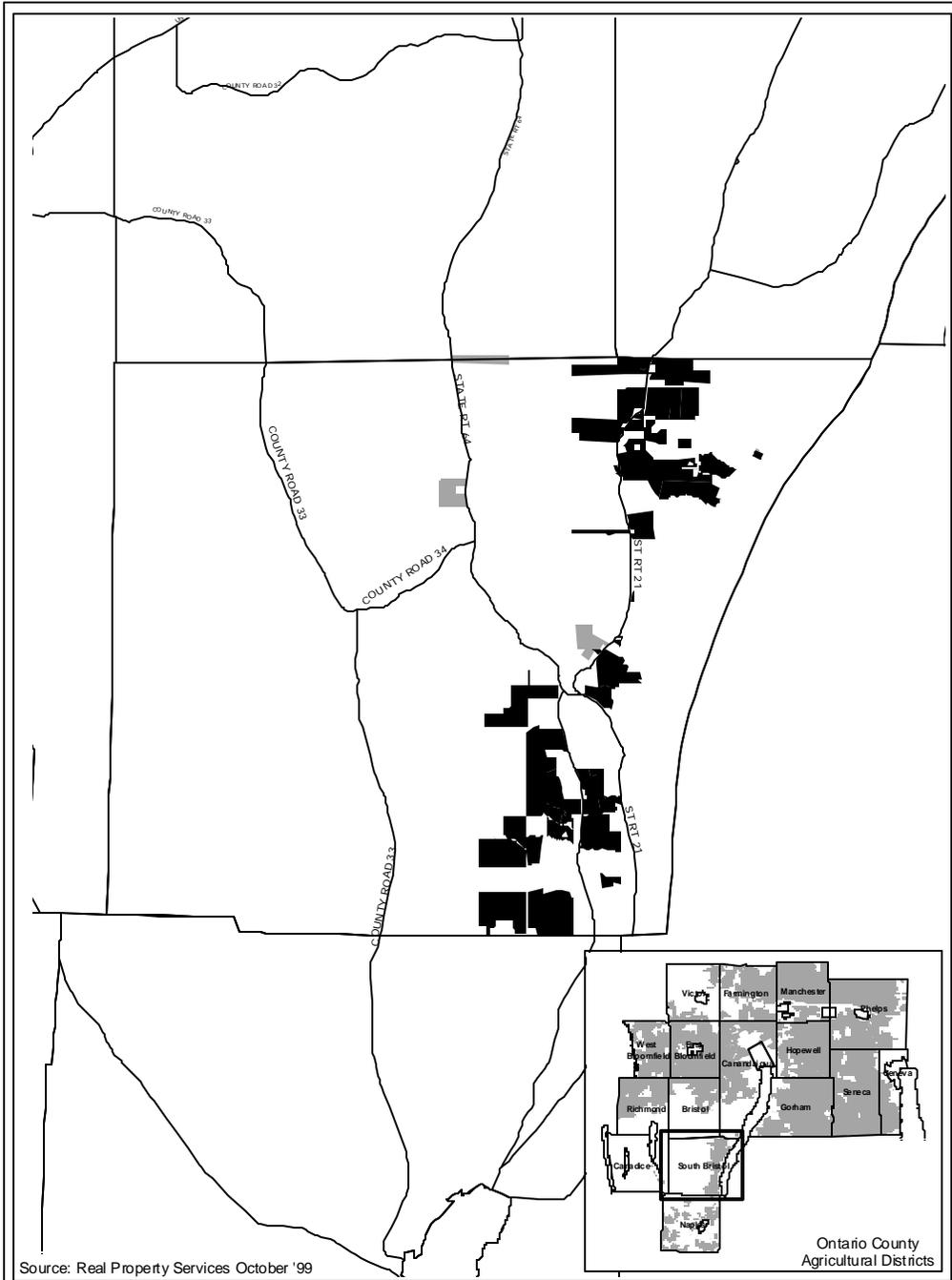
Ontario County
Agricultural Districts

	<h3>Town of Naples</h3>	LEGEND Agricultural Lands Abandoned Ag. Land Productive Agricultural Land
	Ontario County - New York Department of Planning January 2000	



Town of Richmond
 Ontario County - New York
 Department of Planning
 January 2000

LEGEND	
	Agricultural Lands
	Abandoned Ag. Land
	Productive Agricultural Land



Town of South Bristol
Ontario County - New York
Department of Planning
January 2000

LEGEND
Agricultural Lands
 Abandoned Ag. Land
 Productive Agricultural Land

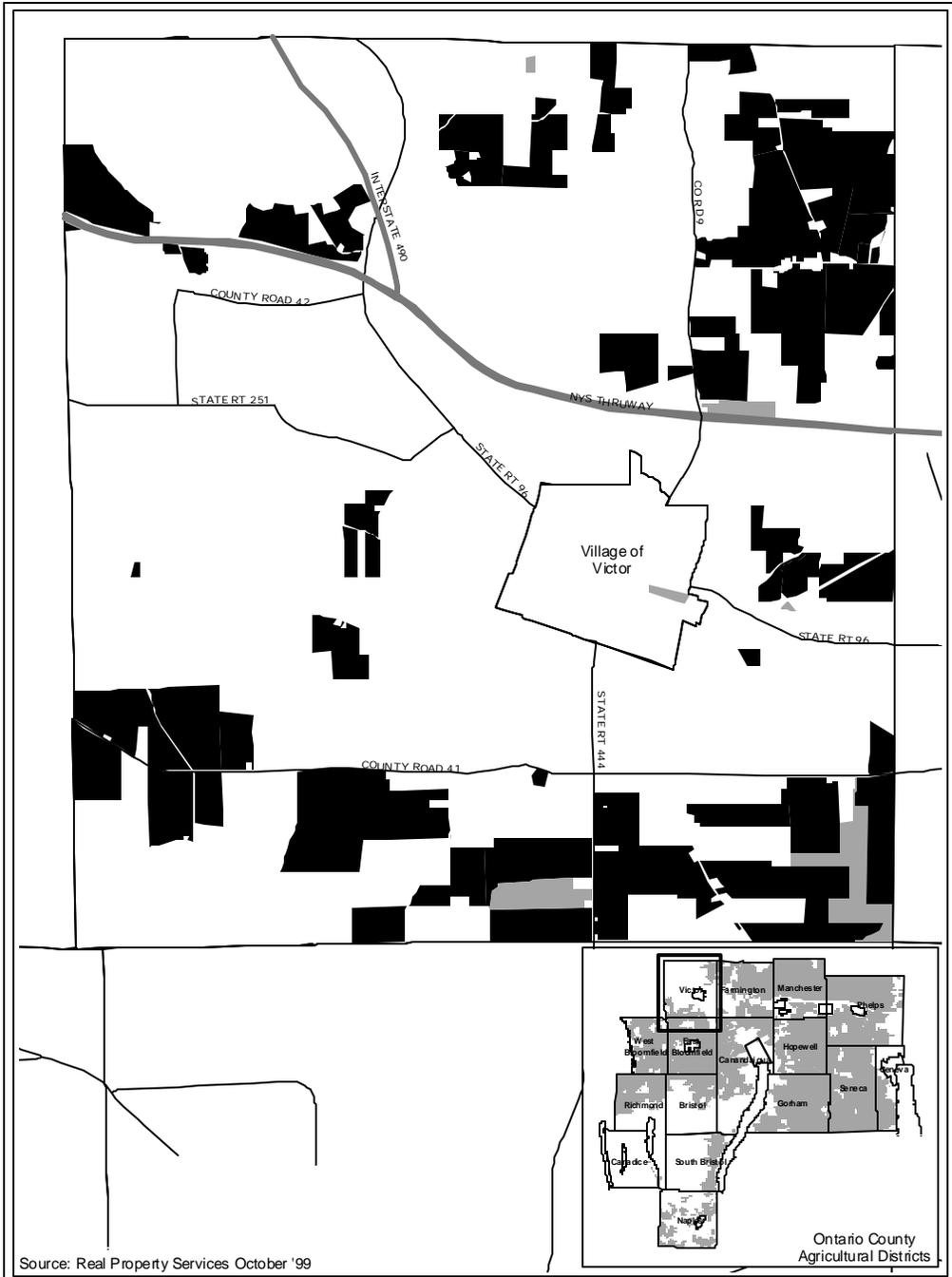


Source: Real Property Services October 99



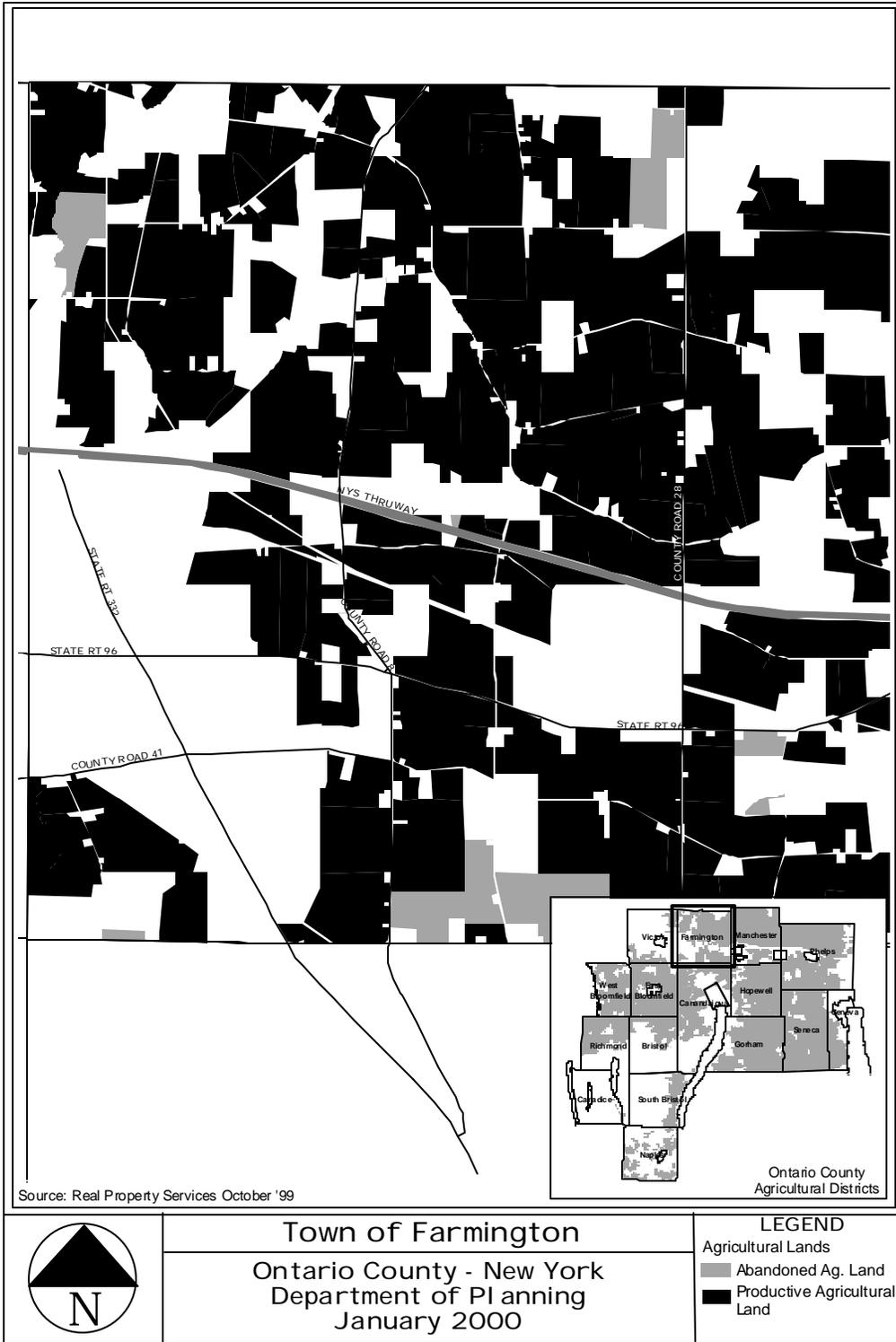
Town of West Bloomfield
 Ontario County - New York
 Department of Planning
 January 2000

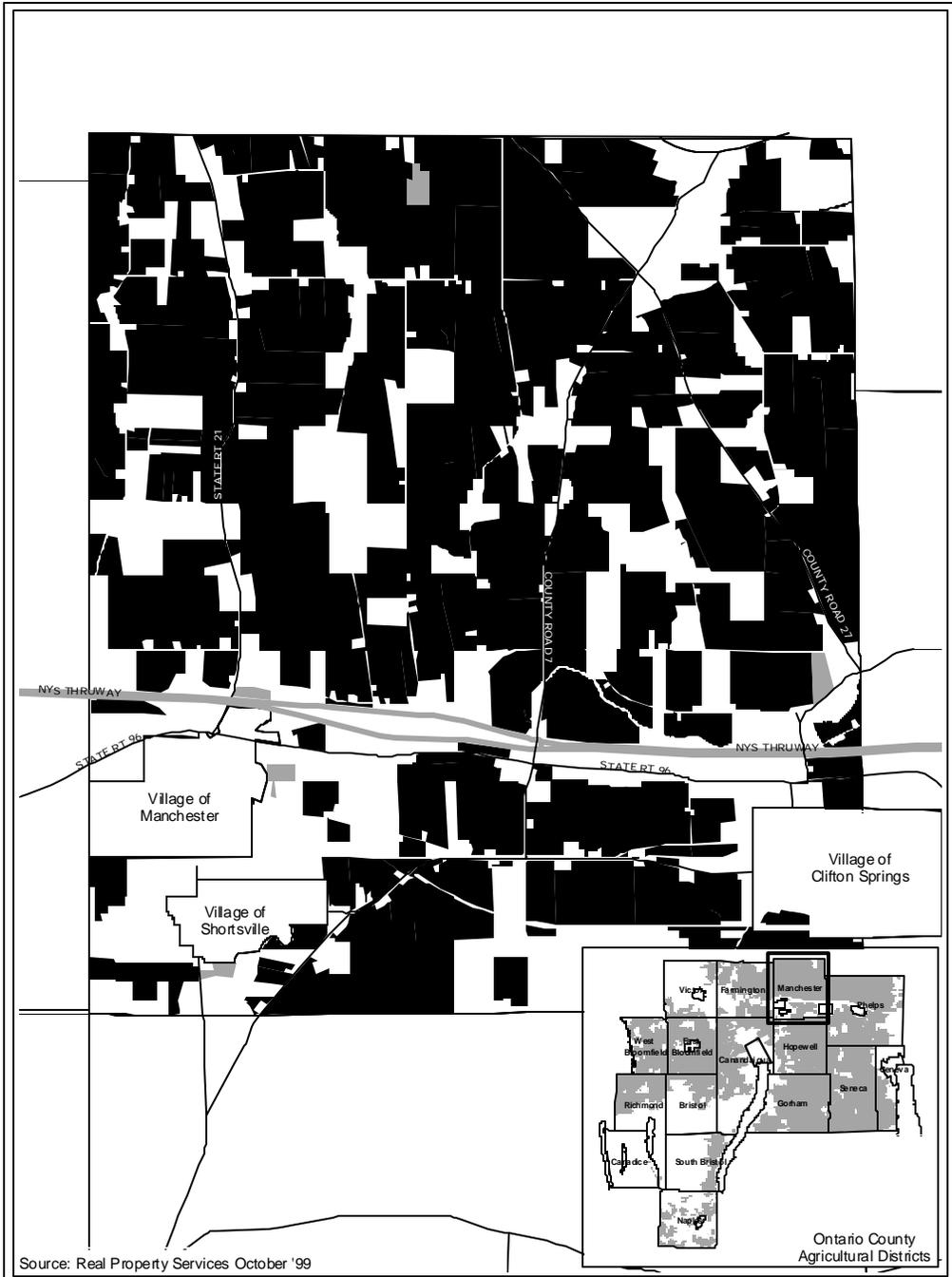
LEGEND	
Agricultural Lands	
	Abandoned Ag. Land
	Productive Agricultural Land



Town of Victor
 Ontario County - New York
 Department of Planning
 January 2000

LEGEND
 Agricultural Lands
 ■ Abandoned Ag. Land
 ■ Productive Agricultural Land





Source: Real Property Services October '99

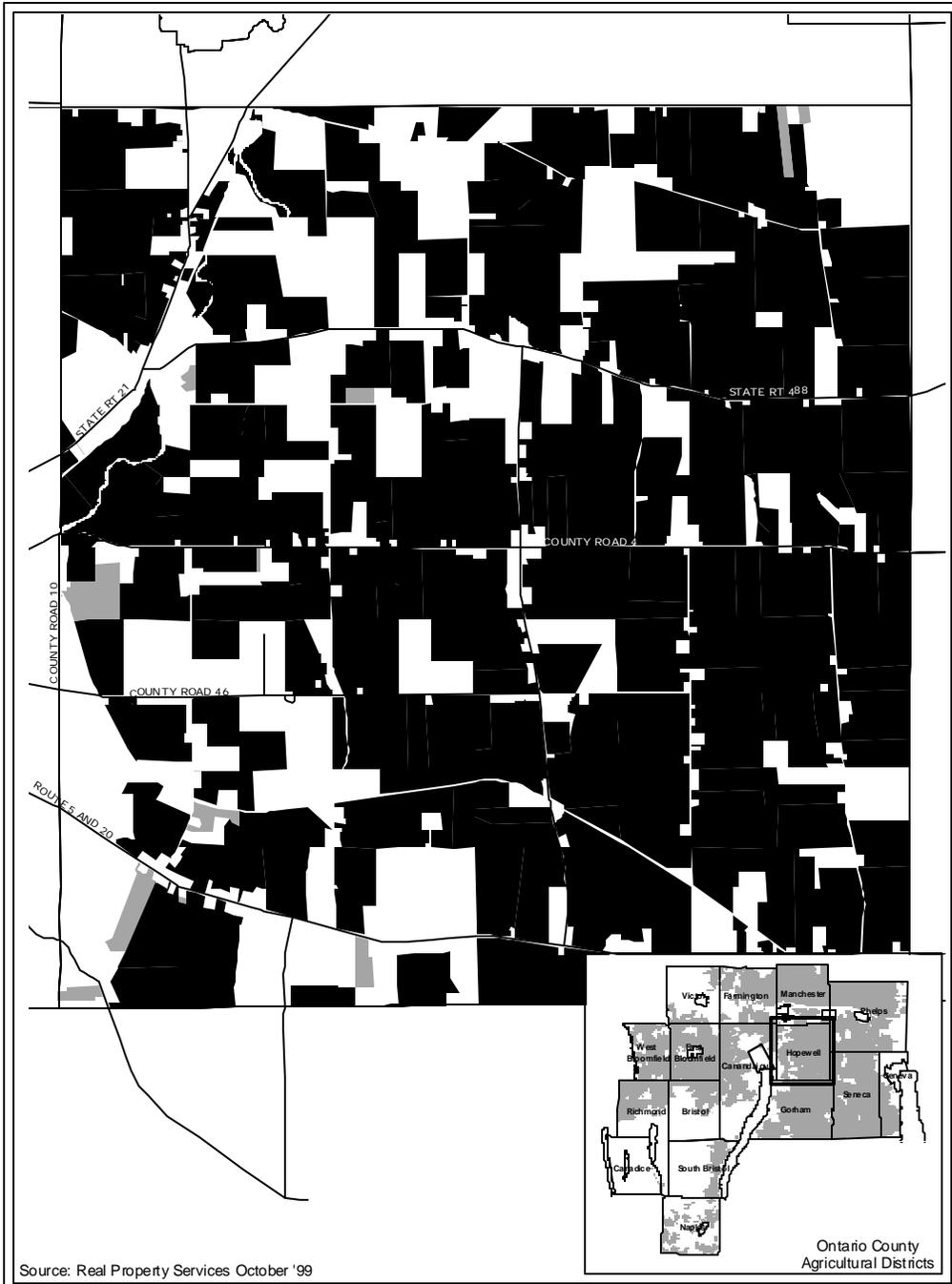
Ontario County
Agricultural Districts



Town of Manchester
 Ontario County - New York
 Department of Planning
 January 2000

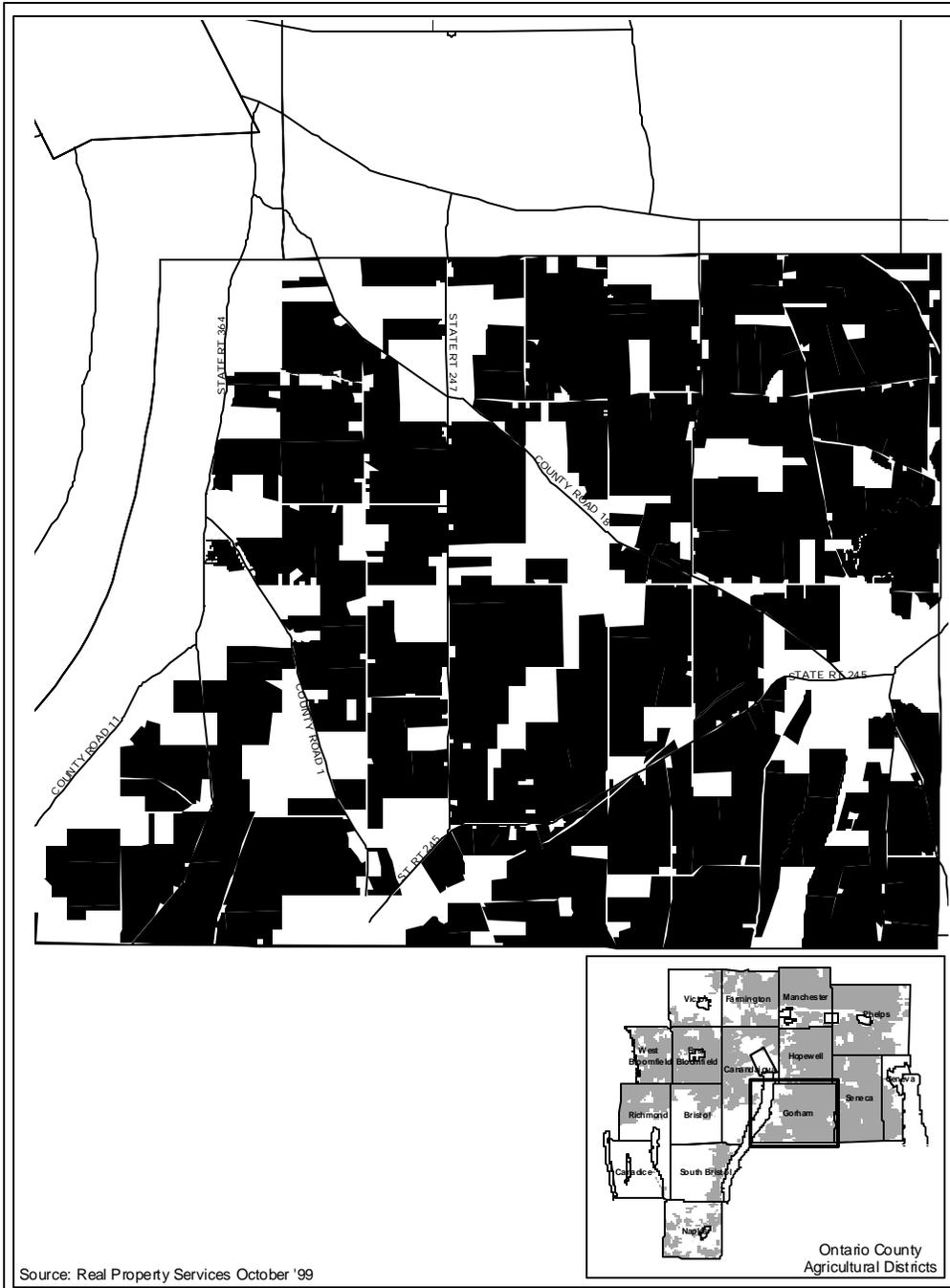
LEGEND
 Agricultural Lands
 Abandoned Ag. Land
 Productive Agricultural Land





Town of Hopewell
 Ontario County - New York
 Department of Planning
 January 2000

LEGEND
 Agricultural Lands
 Abandoned Ag. Land
 Productive Agricultural Land

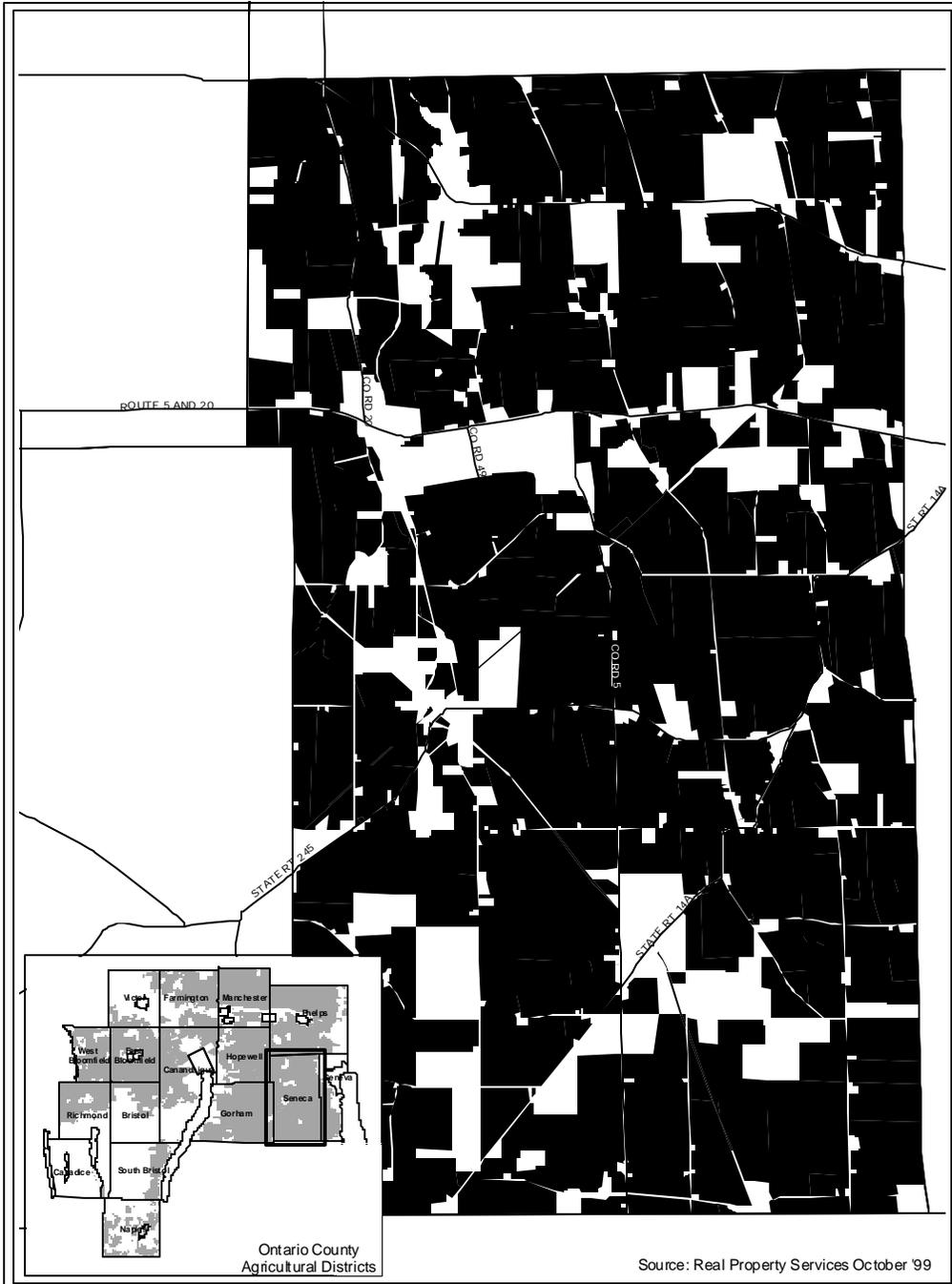


Source: Real Property Services October '99



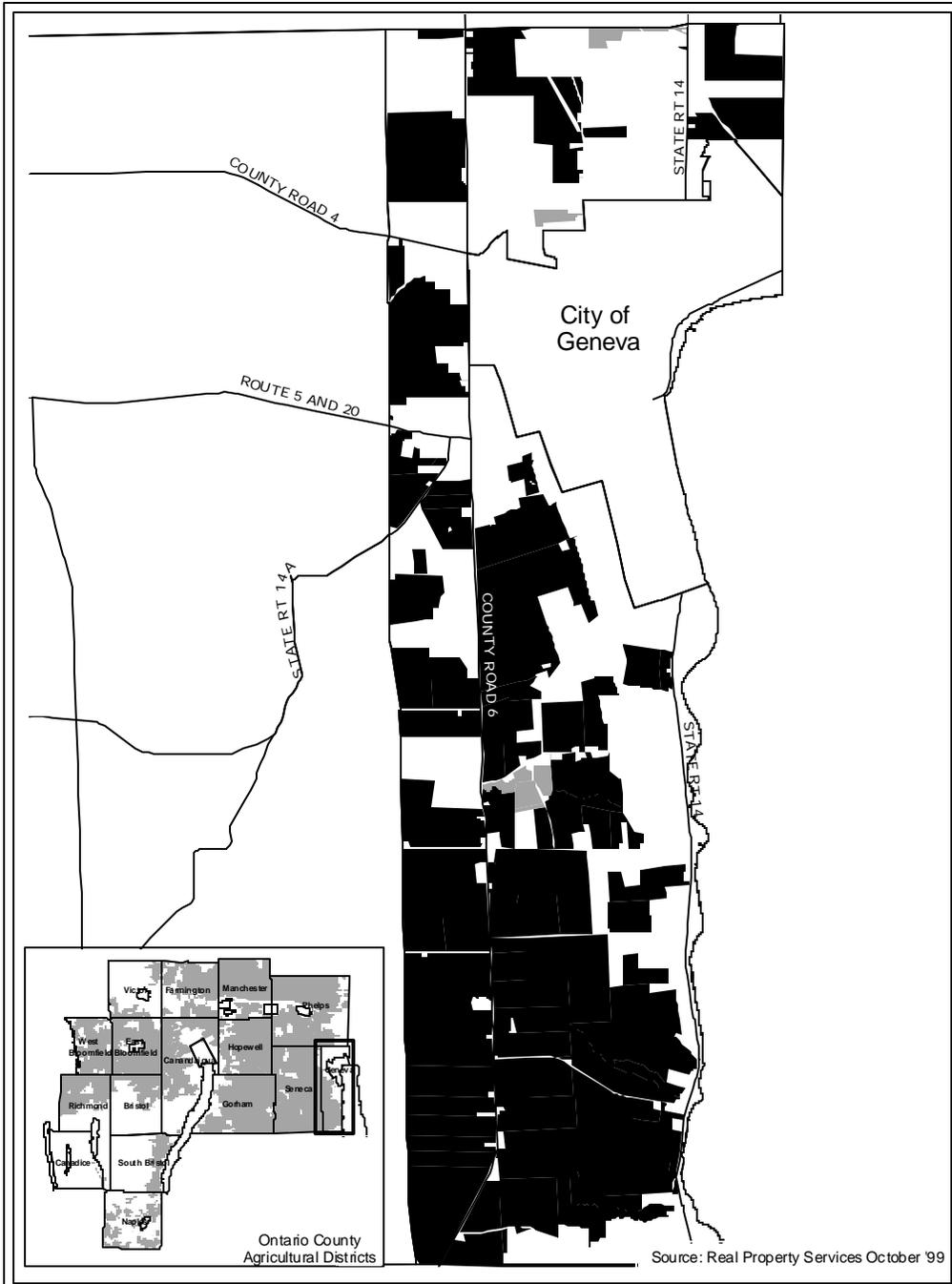
Town of Gorham
 Ontario County - New York
 Department of Planning
 January 2000

LEGEND
 Agricultural Lands
 ■ Abandoned Ag. Land
 ■ Productive Agricultural Land



Town of Seneca
 Ontario County - New York
 Department of Planning
 January 2000

LEGEND
 Agricultural Lands
 Abandoned Ag. Land
 Productive Agricultural Land



	<h3>Town of Geneva</h3>	LEGEND Agricultural Lands Abandoned Ag. Land Productive Agricultural Land
	Ontario County - New York Department of Planning January 2000	

APPENDIX C– NOTES FROM PUBLIC MEETINGS

Community Input and Informational Meetings

-Facilitated by Kathy Barrett, Cornell Cooperative Extension

January 13, 2000--Seneca Town Hall

January 19, 2000--Farmington Town Hall

January 26, 2000--Bristol Town Hall

Summary of Community Input

Strengths of Ontario County Agriculture

- Excellent to good soils.
- Favorable climate
- Abundant water supply.
- Agri-services and support businesses well established and nearby.
- Diverse land use-good nutrient management.
- Several lending institutions that still actively work with agriculture-stimulates competition.
- Proximity to good agriculture services such as Cornell Cooperative Extension and Farm Bureau.
- Industrial Development Agency supports farms by working aggressively with food processors.
- Close proximity to transportation-roads, NYS Thruway and railroads.
- Close to population centers.
- Local processors in the area provide a market for farm products.
- Some young people entering agriculture.
- Public support for agriculture--people appreciate the open space and rural character farms provide.
- Commuters from Rochester provide a viable market for some farm products.

Challenges to Ontario County Agriculture

- Suburban sprawl.
- Desirable place to live so population increasing.
- Traffic increasing on roads used by farmers.
- Consolidation of agribusinesses may mean loss of service to low volume areas.
- Not enough young people coming back to the farm.
- Labor shortage-lack of availability of desirable employees. In part due to alternative non-farm jobs and the poor image farm employment traditional has had.
- Commodity input cost rising-tight profit margins.
- Perception in Ontario County that agriculture is not like other businesses.
- Production agriculture does not qualify for Industrial Development Agency programs.
- Utility costs high.
- High taxes-property taxes and other taxes and fees.
- Lack of support for organic or alternative farm growers.

Recommendations for Enhancing Agriculture in Ontario County

- Best way to preserve farmland and farms is to improve farm profitability.
- Provide education and training to town boards about the impact zoning decisions have on agriculture.
- Work with the Industrial Development Agency to find ways for production agriculture to access programs.
- Attract young people to agriculture careers through career days, school to work programs,

internships, Ag in the Classroom.

- Work with BOCES and FLCC to increase number and participation in agricultural training.
- Provide educational program to non-farm public in the form of a web site, public presentations, and on-farm programs.
- Educate public about the positive impact farmland and open space has on water quality and environment in general.
- Cost sharing for farm technology that affects community in a positive manner i.e. nutrient management/water quality technology.
- Encourage Right to Farm laws.
- Encourage town planning/land use that considers agriculture.
- Educate public about agriculture's impact on the economy and rural landscape.
- Provide incentives for agribusinesses that support farms
- County level plan to outline planned development
- Sales tax revenue sharing County wide-reallocate some revenue to agricultural areas so they do not feel compelled to compete with surrounding towns for the same businesses.
- Give agricultural land preferential tax treatment.
- Develop relationships with land trust conservancies.