

Broome County, New York

Agricultural Economic Development Plan

2.0 Agricultural Inventory

The following represents an overview and inventory of the agricultural industry sector of the Broome County, New York economy.

2.1 Natural Resources for Agriculture

Broome County surrounds the confluence of the Chenango and Susquehanna Rivers and extends east to the West Branch of the Delaware River, straddling two major eastern watersheds. It encompasses six major soil associations described in the Broome County Soil Survey depicted on the map following this page. These associations, in order of their magnitude within the County, are as follows:

Volusia-Mardin Association

This association makes up about 65% of the County. It is found in upland areas throughout the Susquehanna River watershed portion of the County. The soils found within it include Volusia (45%), Mardin (30%) and a group of minor soils such as Lordstown, Chippewa, Alden, Arnot and Tuller that represent about 25% of the association. They are typically characterized by low fertility, seasonal wetness, shallow rooting zones and slopes that limit their use for field crops. The Volusia-Mardin Association, however, does support forest growth and portions of it are quite usable for agriculture with some of the major farming area of the County found within the association. These include, for instance, much of the Town of Lisle and the Town of Triangle.

Lordstown-Volusia-Mardin Association

This association represents approximately 13% of the County. While it, too, includes Volusia and Mardin soils, at 30% and 20% respectively, Lordstown soils predominate at 40% with the remaining minor soils accounting for no more than 10%. The association is typically found in hilltop areas with the largest section of it located in the Binghamton-Conklin area on both sides of the Susquehanna. Limitations for crops include the low fertility, shallow rooting depth, stoniness, climate, seasonal wetness and slope. Selected species of trees do grow well in this association, however. Also, where slope is not an issue, all three major soil types are suitable for agriculture, the Lordstown soils gaining from typically being well-drained.

Broome County, New York

Agricultural Economic Development Plan

INSERT SOILS ASSOCIATION MAP
(See website for copy in PDF format)

Broome County, New York

Agricultural Economic Development Plan

Cattaraugus-Oquaga-Morris-Culvers Association

This association makes up about 10% of the County and is found in the southeastern region along gentle slopes that rise up to ridge tops from narrow valleys. Cattaraugus soils make up 40% of the association with Oquaga soils accounting for 25%, Morris at 20% and Culvers representing 15%. Drainage is generally good and average participation is higher than the rest of the County with a cooler growing season that provides for excellent grasses. Forests also do well in this association. Its limitations for field crops include low fertility, higher elevation, stoniness, some steep slopes and a dense fragipan.

Chenango-Howard-Unadilla Association

This association, which represents 6% of the County, includes gravelly outwashes and stream terraces found along the Chenango River below its confluence with the Chenango. Chenango and Howard soils make up 65% of the association and Unadilla soils account for another 15%. This association constitutes some of the best farmland in the County but much of it is occupied by the City of Binghamton and other urban areas of the County. That area which is undeveloped supports dairying as well as garden crops. It is also well-suited to forestry. Significant areas of undeveloped Chenango-Howard-Unadilla Association are found in the Towns of Chenango, Colesville, Fenton and Lisle. These should be among the targets of any farmland protection plan.

Tioga-Chenango-Howard Association

This association represents another 5% of the County and is similar in many respects to Chenango-Howard-Unadilla Association being found in alluvial floodplains and outwash terraces along major streams and at stream junctures. Tioga soils account for 55% of the association with Chenango and Howard soils making up another 25%. The minor soils include Unadilla. This association of well-drained soils supports dairying and grows field crops such as silage corn, grain and hay. Some of it is also used for intensive crops such as vegetables and nursery stock. Finally, these soils are well-suited to forestry uses. Like the Chenango-Howard-Unadilla Association, they include agricultural areas of the County that should be the focus of farmland protection efforts. However, the floodplain status of much of the association already ensures some level of protection against further urban development of these areas.

Canaseraga-Dalton Association

This association accounts for only about 1% of the County. It consists of Canaseraga (50%), Dalton (30%) and other minor soils (Mardin, Volusia, Chenango, Howard and

Broome County, New York

Agricultural Economic Development Plan

Unadilla found in scattered areas of sloping valley wall along the Susquehanna River in the Towns of Colesville, Conklin, Triangle and Windsor. There is some hazard of erosion with this association and seasonal wetness and slope can also present limitations. It grows field crops but can require intensive management to control erosion.

The Soil Survey also classifies individual soils by their suitability for agricultural and forestry uses. There are 8 different agricultural suitability classes but only Classes I through VII are found in Broome County. There are also 9 woodland suitability groups. Generally, in a County such as Broome, agricultural suitability Classes I and II represent good to excellent soils for production purposes. Classes III to IV have some severe limitations but are usable. Classes V through VII may be described as suitable for pasture or woodland uses only. In the case of woodland suitability, Groups 1 to 3 may be described as good for forestry, Groups 4 to 7 may be considered fair and Groups 8 and 9 as poor to unsuitable. The table found on the following page summarizes county soil conditions in terms of these characteristics:

All factors considered, Broome County's natural resource base for agricultural pursuits is a reasonably good one. It possesses more good to excellent soils than many areas of the Northeast. Moreover, it includes large areas of soils that grow excellent forage grasses and a number of areas suitable for intensive cultivation of vegetables and other small crops. Finally, it's important to realize that the types of agriculture on the rise in Broome County (e.g., greenhouse production) do not always depend on the natural resource base in the same way that traditional crops have.

Broome County, New York

Agricultural Economic Development Plan

Table 2.1 - Broome County Soil Suitability for Agricultural Production

	Agricultural Suitability Classification	Woodland Suitability Group	Broome County Acreage
<u>Good to Excellent Soils</u>			
ChA Chenango and Howard gravelly loam, 0 to 5% slope	I	1	6,590
Tioga silt loam	I	1	7,490
UnB Unadilla silt loam, 0 to 5% slope	I	1	3,590
Br Braceville gravelly silt loam	IIw	1	300
CaB Canaservaga silt loam, 3 to 8% slope	IIe	2	1,100
CuB Culvers silt loam, 2 to 8% slope	IIe	1	1,270
LdB Lordstown channery silt loam, 0 to 5% slope	IIs	2	420
MhB Mardin channery silt loam, 2 to 8% slope	IIe	2	11,970
MmB Mardin channery silt loam, moderately shallow 2 to 8% slope	IIe	2	1,440
Ms Middlebury silt loam	IIw	1	4,640
Sc Scio silt loam	IIw	1	600
Tg Tioga gravelly silt loam, fan	IIe	1	2,510
	Classes I & II Sub-Total =		41,920
		=	9.2%
 <u>Fair Soils</u>			
Cac Canaseraga silt loam, 8 to 15% slope	IIIe	2	2,310
CcC Cattaraugus channery silt loam	IIIe	2	5,000
ChC Chenango and Howard gravelly loam, 5 to 15% slope	IIIe	1	6,980
CuC Cullvers channery silt loam, 8 to 15% slope	IIIe	2	3,090
DaB Dalton silt loam, 2 to 8% slope	IIIw	5	960
DaC Dalton silt loam, 8 to 15% slope	IIIe	5	840
LdC Lordstown channery silt loam, 5 to 15% slope	IIIe	2	17,170
MhC Marden channery silt loam, 8 to 15% slope	IIIe	2	53,390
MnC Mardin-Chenango channery silt loam, 5 to 15% slope	IIIe	2	480
MtB Morris channery silt loam, 2 to 8% slope	IIIw	5	2,100
MtC Morris channery silt loam, 8 to 15% slope	IIIe	5	5,650
OuC Oquaga channery silt loam, 5 to 15% slope	IIIe	2	1,250
UnC Unadilla silt loam, 5 to 15% slope	IIIe	1	1,120
VoA Volusia channery silt loam, 0 to 3% slope	IIIw	5	470
VoB Volusia channery silt loam, 3 to 8% slope	IIIw	5	34,540
VoC Volusia channery silt loam, 8 to 15% slope	IIIe	5	116,890
WA Wallington silt loam	IIIw	5	910
AcA Alden and Chippewa soils, 0 to 3% slope	IV w	8	1,230
ArD Arnot channery silt loam, 0 to 25% slope	IVe	6	1,490
CcD Cattaraugus channery silt loam, 15 to 25% slope	IVe	2	6,550
ChD Chenango and Howard gravelly loam, 15 to 25% slope	IVe	1	2,530
CpB Chippewa channery silt loam, 3 to 8%	IVw	8	860
CuD Culvers channery silt loam, 15 to 25% slope	IVe	2	1,340
LdD Lordstown channery silt loam, 15 to 25% slope	IVe	2	23,790
MhD Mardin channery silt loam, 15 to 25% slope	IVe	2	28,280
MnD Mardin-Chenango channery silt loam, 15 to 25% slope	IVe	2	310
OuD Oquaga channery silt loam, 15 to 25% slope	IVe	2	3,660
TuD Tuller channery silt loam, 0 to 25% slope	IVw	5	540
VoC3 Volusia channery silt loam, 15 to 25% slope	IVe	5	670
VoD Volusia channery silt loam, 15 to 25% slope	IVe	5	9,260
	Classes III & IV Sub-Total =		333,660
		=	73.4%

Broome County, New York

Agricultural Economic Development Plan

**Table 2.1 - Broome County Soil Suitability for Agricultural Production
(Continued)**

	Agricultural Suitability Classification	Woodland Suitability Group	Broome County Acreage
<u>Poor Soils and Other Unsuitable Areas</u>			
Ad Alluvial land	Vw	9	6,110
CcE Cattaraugus channery silt loam	VIe	3	2,250
ChE Chenango and Howard gravelly loam, 25 to 40% slope	VIe	3	2,240
LoE Lordstown and Oquaga channery silt loam, 25 to 35% slope	VIe	3	15,130
MhE Mardin Channery silt loam, 25 to 35% slope	VIe	3	9,740
LrF Lordstown and Oquaga soils, 35 to 60% slope	VIIs	4	5,310
LsE Lordstown and Oquaga extremely stony, 0 to 35% slope	VIIs	7	14,310
MrF Mardin and Cattaraugus soils, 35 to 60% slope	VIIs	4	1,820
MuD Morris and Tuller very stony, 3 to 25% slope	VIIs	5	970
Pm Peat and muck	VIIw	9	240
CV Cut and fill, gravelly	-	9	3,040
CW Cut and fill, loamy	-	9	2,060
Cy Cut and silty	-	9	1,830
Mf Made land, sanitary land fill	-	9	410
Water			4,220
	Classes V & VII Sub-Total =		69,680
			= 15.3%
	Total - All Classes =		454,400
			= 100.0%

Note: Small letters indicate soil limitations, "e" representing risk of erosion, "w" suggesting wetness problems and "s" meaning stony or shallow.

Broome County, New York

Agricultural Economic Development Plan

2.2 Agriculture Land and Districts

Broome County, like many others, has consolidated its New York State approved Agricultural Districts over the years for purposes of producing more efficient administration of the program. There are presently three such districts within the County, District No.'s 3, 4 and 5. The following table summarizes the salient facts regarding each:

Table 2.2 - Broome County Agricultural Disticts

	District No. 3	District No. 4	District No. 5	Totals
Next Renewal Date	2007	2008	2002	N/A
Acres	17,539	59,880	71,084	148,503
Towns	Sanford	Barker, Binghamton, Chenango, Colesville, Conklin, Fenton, Kirkwood, Maine Union, Windsor	Barker, Chenango Lisle, Maine, Nanticoke, Triangle	N/A
Farms				
Dairy	7	20	58	
85				
Grain	0	12	9	21
Vegetables	0	2	8	10
Livestock	2	49	45	96
Horticulture	3	12	10	25
Other	<u>0</u>	<u>5</u>	<u>0</u>	<u>5</u>
	12	100	130	242
Estimated Ag Sales	\$1,900,000	\$11,000,000	\$12,100,000	\$25,000,000
Capital Invested in 8 Years	\$850,000	\$8,000,000	\$5,965,000	\$14,050,000
% of Towns in District	30.4%	22.9%	60.7%	34.0%
Ag Land as District %	31.8%	32.8%	N/A	N/A
Development as District %*	44.2%	37.7%	N/A	N/A

* Developed = classified residential, commercial or industrial for real property tax assessment purposes.

The above table demonstrates that there is significant development pressure on agriculture, despite lack of growth in recent years. The existing development pattern within Agricultural Districts is distinctly mixed in character with residential uses interspersed among farms throughout.

The land use pattern countywide is depicted on the "Broome County Land Use Map" that follows. A separate "Broome County Agricultural Map" also follows to illustrate the location of agricultural parcels on a stand-alone basis. The latter illustrates that the bulk of agricultural activity is found in the northern and eastern panhandles of the County with

Broome County, New York

Agricultural Economic Development Plan

concentrations in the Sanford (Ag District No. 3) area, the Colesville, Fenton and Windsor area (Ag District No. 4) and the Barker, Lisle, Nanticoke and Triangle area (Ag District No. 5). Forest uses are also concentrated in these same areas.

Many residentially classified properties, it must be noted, include open land that is vacant, held in forest use or made available for farming on a rental basis. The assessment data does not fully reveal the extent of this activity. Therefore, it tends to understate the impact of agriculture and forestry on the landscape. The land use analysis connected with the renewal of Agricultural District No. 4 in 2000 took note of this fact stating that "typically, vacant property and the more sizable residential buildings are the primary sources of agricultural rentals for pasturage, haying or other farming activity."

The availability of non-agricultural parcels for farm use is clearly a positive in maintaining the farmland base and reducing holding costs for agricultural production. Nevertheless, many forested areas are taken out of management for crop purposes by residential purchases. Also, there is no assurance such lands will be available over the long-term for agriculture. This demands continuing education of landowners on the benefits of forest management and farm use. Attention to the tax policy implications is also demanded because farmers dependent on large areas of rented land for production are not able to avail themselves of the same tax benefits that others can secure under New York State law.

Broome County, New York

Agricultural Economic Development Plan

EXISTING LAND USE MAP
(See website for copy in PDF format)

Broome County, New York

Agricultural Economic Development Plan

INSERT AG LAND MAP
(See website for copy in PDF format)

Broome County, New York

Agricultural Economic Development Plan

2.3 Land Use and Development Trends

Broome County's population has been stable to declining over the last two decades, yielding only limited development pressures on a few specific areas of the County. The northern portion of the County along Routes 11, 79 and I-81 has exhibited limited growth over the last ten years but in the preceding decade had expanded quite rapidly. This suggests there could be a resurgence of growth in coming years within this area. The Town of Lisle, in fact, has grown by a third since 1980 and it is one of the prime farming areas of the County with over 50% of the land area in agricultural use.

There has, in any case, been a significant loss of farmland within the County, about 6.6 acres per day between 1992 and 1997, some of which reflects new commercial and residential development.¹ The County's rather extensive highway system has played a role in some of this, particularly in the Dickinson area. This factor is likely to be even more important in the future and may continue to spur growth outside the Triple Cities area.

Growth within the Triple Cities area has obviously been negatively influenced over the last ten years by the downsizing of the IBM operations in the County but this impact will fade over time and some new growth can be expected. It is most apt to occur in the northern part of the County due to availability of good highway access. Also, the southern areas bordering Pennsylvania face problems attracting growth because of the tax differentials between the two states. This will put some more pressure on farmland in the northern area.

Growth patterns within the County are more fully revealed in Table 2.4, which indicates that the towns in the northern sections of the County (Barker, Lisle, Nanticoke and Triangle), are the fastest growing over the long-term. The Town of Windsor had also experienced some growth until the 1990's and development along Route 79 may be expected to continue. It is impossible, however, to describe any section of the County as rapidly growing.

Overall, the County has lost population since 1980 while New York State made very small gains (4.5% since 1990 and 8.1% since 1980). Farmland conversion pressure, therefore, has been limited to selected areas. The general loss of farmland can probably be attributed more to other factors such as low profitability and shifts to less land intensive forms of agriculture.

¹ Source: U.S. Census of Agriculture

Broome County, New York

Agricultural Economic Development Plan

Table 2.3 - Population Growth, 1980-2000²

<u>Town/City</u>	<u>1980</u>	<u>1990</u>	<u>% Chg.</u> <u>80-90</u>	<u>2000</u>	<u>% Chg.</u> <u>90-00</u>	<u>% Chg.</u> <u>80-00</u>
<u>Northern Broome Area</u>						
Barker	2,244	2,714	20.9%	2,738	0.9%	22.0%
Lisle	2,039	2,486	21.9%	2,707	8.9%	32.8%
Nanticoke	1,425	1,846	29.5%	1,790	-3.0%	25.6%
Triangle	2,618	3,006	14.8%	3,032	0.9%	15.8%
SUB-TOTALS	8,326	10,052	20.7%	10,267	2.1%	23.3%
<u>Triple Cities Fringe Area</u>						
Chenango	12,233	12,310	0.6%	11,454	-7.0%	-6.4%
Conklin	6,204	6,265	1.0%	5,940	-5.2%	-4.3%
Fenton	7,400	7,236	-2.2%	6,909	-4.5%	-6.5%
Kirkwood	5,834	6,096	4.5%	5,651	-7.3%	-3.1%
Maine	5,262	5,576	6.0%	5,459	-2.1%	3.7%
SUB-TOTALS	36,933	37,483	1.5%	35,413	-5.5%	-4.1%
<u>Triple Cities Urban Area</u>						
Binghamton City	55,860	53,008	-5.1%	47,380	-10.6%	-15.2%
Binghamton Town	5,007	5,006	0.0%	4,969	-0.7%	-0.8%
Dickinson	5,594	5,486	-1.9%	5,335	-2.8%	-4.6%
Union	61,179	59,786	-2.2%	56,298	-5.8%	-8.0%
Vestal	27,238	26,733	-1.9%	26,535	-0.7%	-2.6%
SUB-TOTALS	154,878	150,019	-3.4%	140,517	-6.3%	-9.3%
<u>Eastern Broome Area</u>						
Colesville	4,965	5,590	12.6%	5,441	-2.7%	-5.2%
Sanford	2,635	2,576	-2.2%	2,477	-3.8%	-15.5%
Windsor	5,911	6,440	8.9%	6,421	-0.3%	8.6%
SUB-TOTALS	13,511	14,621	-3.8%	14,339	-1.8%	-5.7%
TOTALS	213,648	212,160	-0.7%	200,536	-5.5%	-6.1%

² Town data includes Village portions.

Broome County, New York

Agricultural Economic Development Plan

2.4 The Economics of Broome County Agriculture

Some 85,804 acres of Broome County is farmed, approximately 19% of the land mass. About 28,800 acres or 34% of this land is wooded, in addition to 229,200 acres of other forested land, meaning that fully 70% of Broome County is in farm or forest use and this accounts for its character outside the Triple Cities and complements the urban area.³ There were 336 farms generating sales of at least \$2,500 in 1997 and 165 of these produced \$10,000 or more of product. Altogether, these farms produced some \$24,016,000 in sales in 1997, of which \$19,347,000 or 81% was livestock-related. These various products accounted for 633 full or part-time jobs (including 241 owner-operators primarily occupied with farming). This is the agricultural economic base of Broome County. It is very diverse with a fairly strong dairy sector composed of both small and large size farms.⁴ Table 2.4 and the chart following provide further data.

Table 2.4 - Market Value of Broome County Agricultural Products, 1997

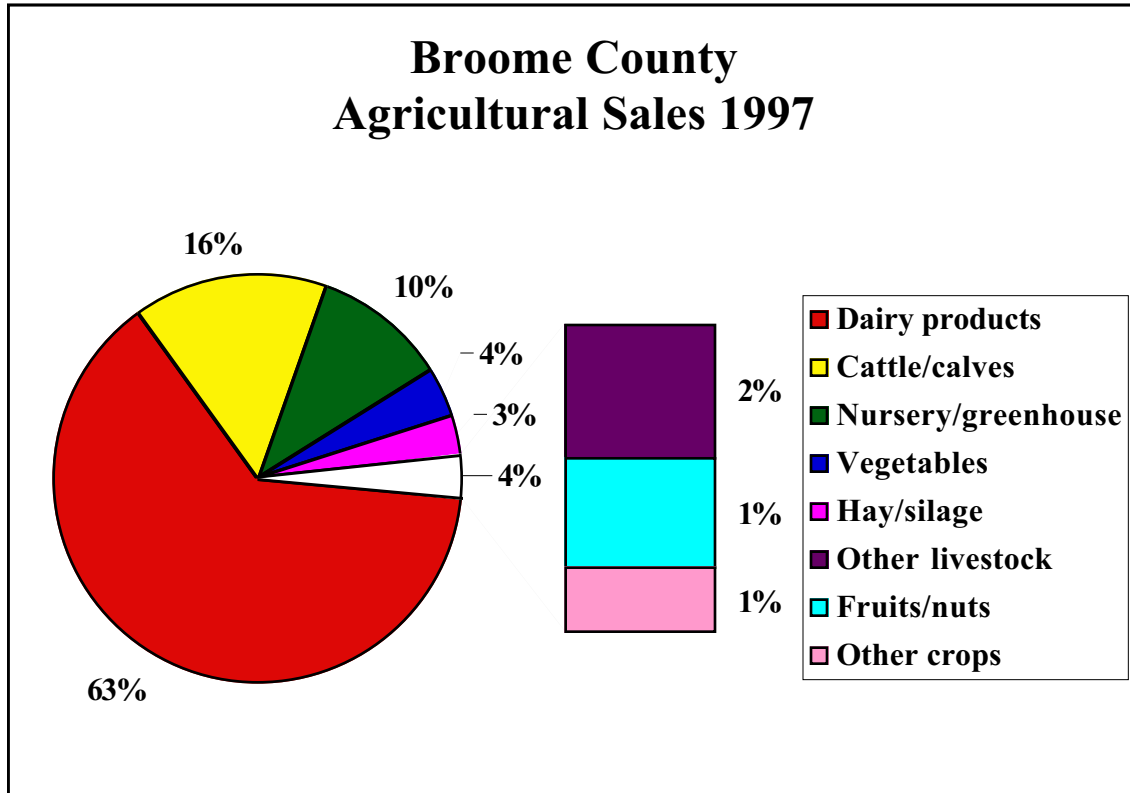
<u>Agricultural Products</u>	<u>1997 Cash Receipts</u>	<u>% of Category</u>	<u>% of Total</u>	<u>No. of Farms</u>
Dairy products	\$15,229,000	78.7%	63.4%	88
Cattle/calves	\$3,746,000	19.4%	15.6%	244
Other livestock	\$373,000	1.9%	1.6%	104
Livestock Sub-total	\$19,348,000	100.0%	80.6%	304
Hay/silage	\$771,000	16.5%	3.2%	174
Nursery/greenhouse	\$2,507,000	53.7%	10.4%	62
Fruits/nuts	\$301,000	6.4%	1.3%	19
Vegetables	\$914,000	19.6%	3.8%	28
Other crops	\$175,000	3.7%	0.7%	40
Crops Sub-total	\$4,668,000	100.0%	19.4%	264
Total Agricultural =	\$78,665,000	100.0%	100.0%	511

3 Source: USDA Forest Service Northeastern Forest Industry Analysis.

4 Source: 1997 U.S. Census of Agriculture. It must be noted that State Agricultural Statistics Service surveys indicate significantly higher numbers for various categories (e.g. 610 farms in 1997 versus the 511 counted in the Census). This is attributable to the State's more frequent data analysis and follow-up. Nevertheless, Census numbers are more complete overall and, therefore, more suitable for planning purposes. Totals may not agree due to rounding, however, and because multiple products are often produced from the same farm, numbers of farms overlap and cannot be directly totaled.

Broome County, New York

Agricultural Economic Development Plan

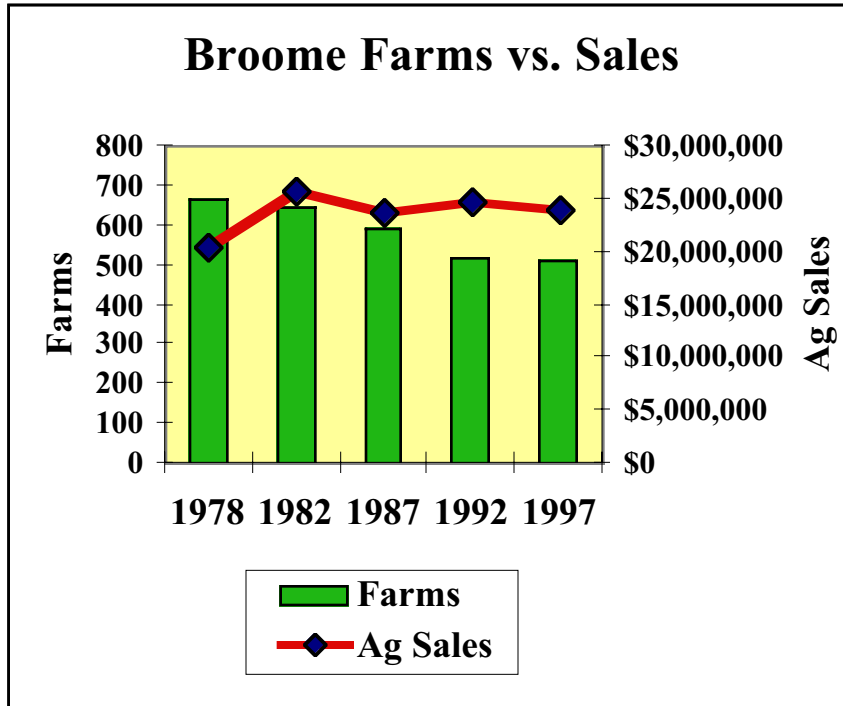


Because Broome County has been very successful in developing alternative and niche agricultural businesses, many of which are small cash-based enterprises, much of the agricultural activity is not recorded in either the Census of Agriculture or by the New York Agricultural Statistics System. Nevertheless, the latter is more up-to-date and more inclusive. The 1998 data, for example, indicates there were 615 farms in the County generating sales of \$24,956,000. Vegetable sales were estimated at \$1,331,000, some 46% higher than the Census from one year earlier and even this figure is believed by Cooperative Extension Service personnel to be very low compared to actual activity. Fruit sales were recorded at \$324,000, some 8% higher. Dairy and hay/silage/field crop sales were 10% and 16% higher, respectively.

The charts following illustrate additional trends with respect to sales of dairy and other agricultural products. Sales of agricultural product increased by 1% between 1987 and 1997 (before adjustment for inflation). Vegetable sales gained 249% and nursery and greenhouse crops grew by 163%, a major expansion in activity. Crop sales as a whole increased by 80%. Cattle and calf sales gained 26% and miscellaneous livestock operations (e.g., exotics, goats, rabbits, etc.) increased by 89% for the decade. Notwithstanding these increases, dairy sales declined by 14% and field crop sales lost 8%, although the latter experienced significant gains between 1987 and 1992.

Broome County, New York

Agricultural Economic Development Plan

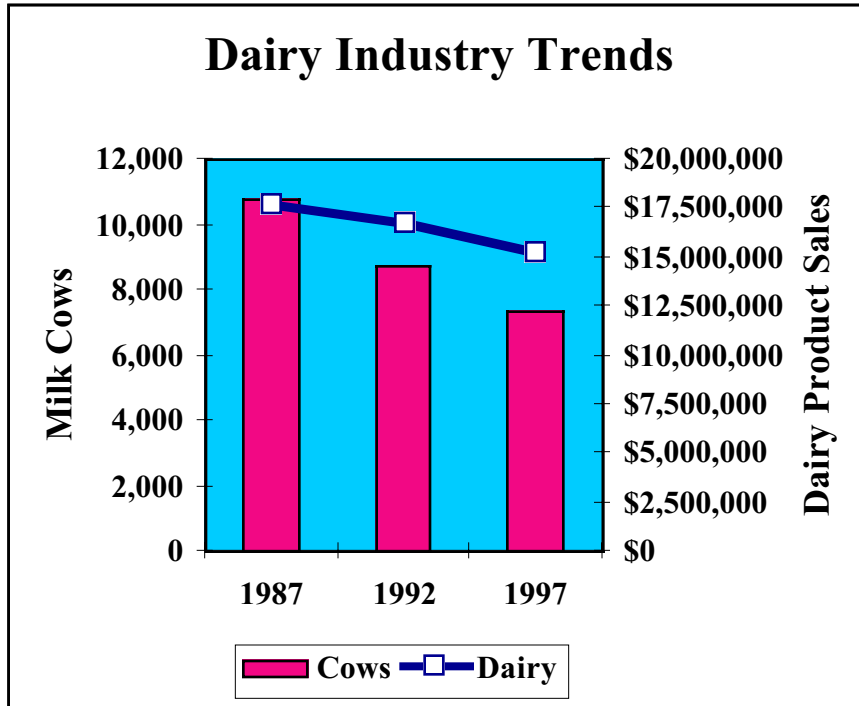


New York is one of the top states in the nation in milk production and Broome County is, in fact, ranked 267th out of 2,563 producing counties in the U.S. for dairy sales. It is also ranked 254th nationwide in corn silage acreage, 304th in nursery acreage and 319th in horses and ponies sold. It ranked 7th and 12th statewide, respectively, in horse and pony sales and nursery acreage. Horse and pony sales were recorded as \$213,000 in 1997 and are estimated to have grown substantially since then as the County has attracted breeding operations where a single horse can sell for more than this figure.

Sales of dairy products in the County have, as the chart below demonstrates, declined much more slowly than cow numbers have declined. There has been substantial consolidation in the dairy industry both nationally and within the County and price fluctuations have had a major impact in driving out less efficient producers. The positive side is that the producers who remain are much better positioned to compete with Western dairy farmers operating with 3,000 cows or more per farm. There are, in fact, some major dairy farms in Broome County. There were two growing 500+ cow operations in 1997, another four dairy farms with 200+ cows and an additional eight farms with 100+ cows. The future of the dairy industry will largely rest on these farms. There were no 500+ cow herds in 1987 and today there is at least one herd with 1,450 milkers and 900 young stock.

Broome County, New York

Agricultural Economic Development Plan

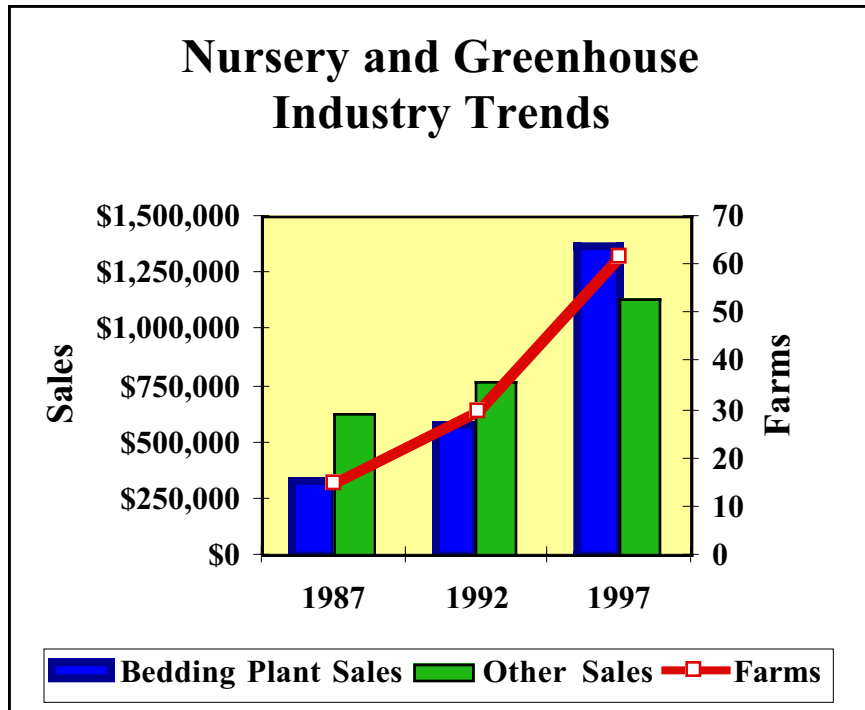
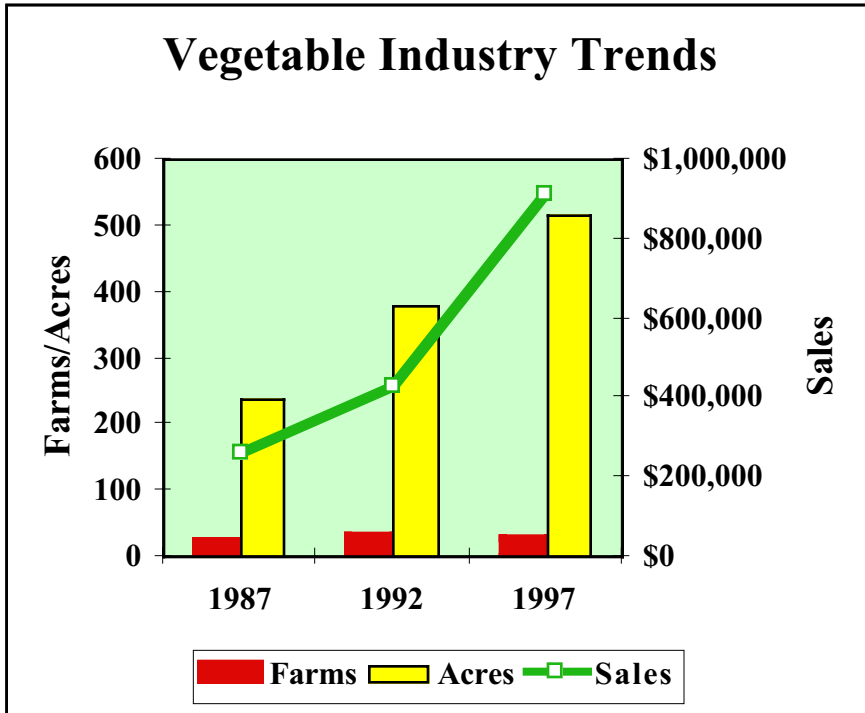


Vegetable and nursery production are growing Broome County strengths with potential to expand significantly due to the presence of an urban base, several farm stands and farm markets and a good highway system. The acreage used for vegetables more than doubled between 1987 and 1997 (growing from 236 to 515 acres). Vegetables commercially produced include cucumbers, garlic, herbs, peas, peppers, pumpkins, squash, sweet corn and tomatoes. There was growth in nearly all categories since 1987. Sweet corn, a very profitable crop, is now grown on some 22 farms and consumes 360 acres versus the 157 used for this purpose in 1987.

Nursery and greenhouse operations have grown from 15 in 1987 to 62 in 1997, a 313% increase with most of the gains being in the greenhouse and floral foliage end of the business. The production area under glass has grown from 172,089 square feet in 1987 to 327,778 in 1997 and open acres have expanded from 16 to 985 over the same period. Bedding plant sales alone grew from \$326,000 in 1987 to \$1,374,000 in 1997. There was also, in 1997, some \$1,135,000 of sales in foliage plants (including \$736,000 in potted flowering plants) and \$132,000 in Christmas tree sales. Actual nurseries contributed only \$49,000 in sales and this is clearly an area of additional potential. The charts following demonstrate the growth in nursery and greenhouse business as an agricultural category.

Broome County, New York

Agricultural Economic Development Plan



Broome County, New York

Agricultural Economic Development Plan

One must also consider the substantial multiplier effects connected with farm sales when evaluating the size and nature of an agricultural economy. Farmers typically purchase most of their goods and services from within a 20-25 mile range of the farm, while their product is marketed outside the region. This export of product and import of dollars puts them on the high side of multiplier scales according to a Cornell University study.⁵

That Cornell research, conducted for 1991, indicates the following range of multipliers, by sector of the New York State economy, for both total income and full-time equivalent jobs:

Table 2.5 - Economic Multipliers by Sector, New York State, 1991

	<u>Total Income</u>	<u>Employment</u>
<u>Production Agriculture Industries</u>		
Dairy	2.29	1.52
Crops	2.28	1.51
Nursery and wood products	1.78	1.39
Poultry and livestock	1.64	1.37
<u>Agricultural Manufacturing Industries</u>		
Dairy processing	2.61	3.53
Grain processing	2.16	2.58
Fruits and vegetables processing	1.67	2.09
Meat processing	1.65	1.99
<u>Other Economic Sectors</u>		
Construction	1.66	1.57
Services	1.48	1.39
Manufacturing (non-food)	1.41	1.62
Retail and wholesale trade	1.40	1.30
Finance, insurance and real estate	1.19	1.54

⁵ Department of Agricultural, Resource and Managerial Economics, Policy Issues in Rural Land Use, December, 1996, "Economic Multipliers and the New York State Economy."

Broome County, New York

Agricultural Economic Development Plan

2.5 Relationship to Other Planning

Broome County is now in the midst of developing a countywide Comprehensive Plan for Sustainable Economic Development that is expected to incorporate much of the input from this Plan. It is being funded under New York State's Quality Communities Demonstration Program. The plan of work identifies agriculture as a "critical segment of the County's economic base" and notes that the industry is in a state of transition. It also discusses some of the County's economic development and planning initiatives including the establishment of a New York State Economic Development Zone in the Town of Union, Johnson City and Endicott areas and the Susquehanna Heritage Area (a tourism development effort). There are agricultural implications with respect to both. Open space protection is also identified as a goal with the results of this Agricultural and Farmland Protection Plan expected to influence final recommendations.

A previous report along this line was prepared in 1993 by Economic Research Associates. Entitled Economic Development Overview and Strategy Considerations for Broome County. It includes essential background data on the local economy and sets forth several specific strategies for dealing with Broome County economic development problems. However, it takes a relatively narrow and negative view of agriculture, focusing only on dairy enterprises and mostly on the decline in farm numbers. It also incorrectly indicated that Broome County had "no businesses which produce dairy products," ignoring the Crowley operation. Among the observations and strategies included in the report are the following items relevant to agriculture:

- "Quality of life factors are also becoming more important to firms establishing location criteria." Agricultural and forestry landscapes contribute significantly to that quality of life and should be recognized for these contributions.
- "A large proportion of the growth of any economy will stem from expansion and diversification from within..." Diversification is already taking place in the agricultural sector and should be able to benefit from County initiatives in this regard.
- "Expand existing entrepreneurial training." Clearly, farmers are in great need of such training to make the shift from being "price takers" to "price makers."
- "Establish a library of market research materials for selected sectors." Marketing is also the key to agricultural economic development and the agricultural sector should be part of such efforts.
- "Prepare and publish a data base on Broome County firms to promote local

Broome County, New York

Agricultural Economic Development Plan

procurement." This, too, can be important to the agricultural sector, particularly in regard to opening up institutional food markets.

- "Market bus tour companies and develop package tours." Agricultural tourism in combination with bed and breakfast promotions presents obvious possibilities.

There is some planning work relative to agriculture taking place under the leadership of the Southern Tier East Regional Planning Board and the local Resource Conservation and Development District. The former has assembled the recommendations of various county agricultural and farmland protection plans into one document, for instance. The latter has recently co-sponsored a Northeast Agroforestry and Carbon Conference in Binghamton to explore the potential for development of new agroforestry income crops and use of carbon sequestration credits as a source of funding for maintaining working landscapes in forestry and related uses.

There has also been a considerable amount of comprehensive planning work taking place at the municipal level in Broome County. An example is the Town of Kirkwood, which has recently developed a draft plan update working together with Binghamton University staff.. The Town's goals, as laid out in this draft plan include "rural-based quality of life that balances modest growth and improved residential and commercial districts with protection of the natural environment and some agricultural land."

It is also stated in the Kirkwood Plan that "farming has become very limited and is in decline across the State of New York." This is an incorrect statement. Cash receipts from farming in the State are growing and up 9% since 1994. New York was the No. 2 producer of apples in the U.S. in 1998 and was No. 3 in dairy and sweet corn production. It was No. 6 in onions and potatoes and No.7 in greenhouse and nursery production. Some of these types of products, too, are growing rapidly in sales within Broome County. Nursery and greenhouse operations, in fact, more than quadrupled in number between 1987 and 1997 and gained 313% in sales between 1987 and 1997 (see Section 2.4).

Regardless of the inaccuracy, Kirkwood's draft indicates that "effort must be made to protect farm land but, at the same time balance new residential development of varying densities." This is a generally positive statement but demonstrates the need for incorporation of valid agricultural data in plans. Kirkwood does have potential for agriculture but it is probably not the type of farming that most residents think of as farming. Much of it is small scale activity that can easily complement residential development. This situation is likely to be found in other towns as well.

Broome County, New York

Agricultural Economic Development Plan

2.6 Agricultural Industry Trends

The single greatest challenge facing agriculture today is low profitability. Finding the right niche market in which to make a decent living is every farmer's battle. Some have chosen to leave the farm for other opportunities but recent innovations and trends offer hope for keeping them on the land. These include the following:

- New generation farm cooperatives are being formed across the country to market agricultural products and purchase supplies. These are taking shape around the original concept of cooperatives, which was to serve the narrow but compelling interests of small groups of producers united by specialized needs. An example of the new generation version is Catskill Family Farms in nearby Delaware County which has been formed with the help of the Watershed Agricultural Council (WAC) to market specialty produce (e.g. fingerling potatoes) grown on Whole Farm Planned farms within the Watershed to New York City restaurants. It secures growing contracts in advance, advertises and promotes using a collective theme and by operating from a narrow scope is able to focus its efforts on highly profitable lines of business. WAC anticipates additional such cooperatives may be formed, for instance, to market meat or forest products.
- Small-scale agriculture, farm diversification and specialization are also regaining favor in some quarters as farmers realize the opportunities to earn high margins off small enterprises and niche lines of business. Specialization can increase profits and is the answer for many farmers but when it is used solely for the purpose of increasing production without corresponding management to lower the costs of inputs, the market can quickly become flooded with too much product. Only price supports and farm consolidations have allowed farmers to earn reasonable incomes under such conditions and they are now ever more subject to the whims of governmental policies and market prices on a relatively few products.

Dependence on the market price of a single commodity can lead to financial ruin but diversity can help to spread the risk and allow a farmer to address niche opportunities. Indeed, specialization works best in synchronization with diversification (e.g. a beef stocker who also raises vegetables). Specialization also allows opportunities for diversification in the form of strategic alliances among farmers where one will grow grain and/or mix rations for another in return for rented crop land as an example. Small farmers in other counties (e.g. Wyoming) have, in fact, been able to prosper in relationships of this sort with larger farmers.

- Adding value to farm and forest products before they leave the County is also a

Broome County, New York

Agricultural Economic Development Plan

method increasingly being used by farmers and others to increase profitability. Cornell Cooperative Extension of Sullivan County, for example, recently conducted a symposium on mini-dairy operations. There are various international and other firms marketing on-farm equipment that can put a dairy farmer in the business of producing yogurt, ice cream, butter and other added value products. With proper marketing and exploitation of access to the New York City market, this could offer dairy farmers a means of becoming “price-makers” rather than “price-takers.” New York State's farm tax breaks and the Broome County IDA’s Tax Abatement Program for industrial value-added businesses could be used to further enhance these opportunities.

- A corollary to the above trends is more and more emphasis on direct marketing of farm products. Farm stands have gained in popularity. They create variety and through linking to other tourist attractions, offer opportunities for local farmers to earn extra income. Some farmers within the region already depend on direct marketing for their entire income by selling vegetables, poultry and other farm products to the New York City and other green and live markets.
- Green-labeling of farm products is another trend which is of particular import to Broome County because it sits on the edge of the largest environmentally conscious market in the world - the New York City metropolitan area. The County is also poised, of course, to tap the much nearer Albany market. Green-labeling in this context can take many forms. It can include organic products, produce grown on Whole Farm Planned farms, fresh produce, pastured poultry, natural beef or firewood taken from forests managed under environmentally friendly conditions.

There are examples and/or opportunities for each of these in Broome County. One of the challenges, of course, is to avoid diluting the value of the green-label by employment of lax standards, balancing this concern against setting standards so high that small farmers cannot participate. The organic food industry faces such a challenge at the moment with too many farmers claiming to be organic who are really not. Proposed Federal standards threatened to worsen the problem by setting unrealistic standards, rather than remedying it as was hoped although that may now be in the course of being remedied. A similar problem existed with New York State’s Seal of Quality program. It’s new “Pride of New York” program, however, appears much more workable and is now being used by some 180 producers across the State.

A good example of very specific green-labeling is the Chesapeake Milk program launched by Penn State University, EPA, the Chesapeake Bay Foundation and others. It labels milk, produced under water quality programs designed to protect the Bay, with an environmental certification and then adds a 5¢ per half-gallon premium onto

Broome County, New York

Agricultural Economic Development Plan

the price. That premium is returned to participating farmers as a profit share and for use in covering the costs of environmental improvements.

Broome County, New York

Agricultural Economic Development Plan

2.7 The Forestry Sector

Trees represent a distinct agricultural crop for Broome County and one of significant importance to the regional economy. Their value, however, is often underrated because the crop rotation period is so long and opportunities to claim income are relatively infrequent. Some 253,000 acres or 56% of Broome County is considered timberland. Sawtimber represents 122,300 acres with the remainder consisting of seedlings, saplings and pole timber.⁶ A total of 92% of the timberland is owned by farmers or private individuals. It is a valuable income-producing asset for these landowners. Private corporations and the forest industry own another 8,900 acres of woodland. The State also owns 10,900 acres of forested land in Broome County.

The following is a breakdown of privately owned woodland in the County by forest type:

**Table 2.6 - Broome County
Private Timberland by Forest Types, 1993**

<u>Forest Type</u>	<u>Acreage</u>
White-red pine	29,100 acres
Oak-pine	9,600 acres
Oak-hickory	36,200 acres
Maple-beech-birch	162,200 acres
<u>Aspen-birch</u>	<u>15,800 acres</u>
Total Timberland	253,000 acres

These largely (88%) hardwood forests produce high quality timber and spectacular fall foliage that attract tourism throughout the Northeast. The Forest Service studies indicate the most common species, in terms of numbers of live trees, are Soft Maple, Ash and Hard Maple. Significantly, some 185,800 acres or 73% of Broome's timberland is considered by the Forest Service to be either fully stocked or over-stocked and, altogether, the County's timberland represents 386,400,000 cubic feet of growing stock.⁷ This timberland includes an estimated 1,026,300,000 board feet of sawtimber and is growing by 28,900,000 net

⁶ The source of all forestry data, unless otherwise indicated, is the USDA Forest Service, Northeastern Station, "Northeastern Forest Inventory and Analysis Project," 1993 and 1996. Unfortunately, although this is the only official source of the data available, it is based on sampling of a mere 51 plots and is often prone to error as a result. Therefore, great caution must be exercised in using the data to make any definitive specific conclusions regarding the industry. The information is used herein general analysis purposes only.

⁷ Growing stock generally refers to all usable portions of trees, those portions that exceed 4" in diameter.

Broome County, New York

Agricultural Economic Development Plan

board feet per year.⁸ The following table compares Forest Service estimates of growth compared to average annual removals of sawtimber:⁹

Table 2.7 - Broome County Average Net Annual Growth and Average Annual Removals of Sawtimber by Species Group, 1993
(All figures, except percentages, are in board feet)

<u>Species Group</u>	<u>Sawtimber Base Volume</u>	<u>Annual Growth</u>	<u>Annual Removals</u>	<u>Cutting Rate</u>
Eastern White - Red Pine	20,700,000	2,000,000	0	0.0%
Eastern Hemlock	183,600,000	6,500,000	300,000	0.2%
Other Softwood	10,300,000	500,000	100,000	0.9%
Total Softwoods =	214,600,000	9,000,000	400,000	0.2%
Select White Oak	47,700,000	1,200,000	400,000	1.3%
Select Red Oak	97,700,000	2,900,000	2,000,000	2.0%
Other White Oak	11,400,000	400,000	800,000	7.0%
Other Red Oak	8,200,000	400,000	0	0.0%
Hard Maple	72,000,000	3,800,000	1,300,000	1.8%
Soft Maple	290,000,000	10,100,000	1,600,000	0.6%
Ash	76,800,000	2,400,000	600,000	0.8%
Aspen	81,200,000	3,400,000	1,200,000	1.5%
Basswood	22,800,000	800,000	0	0.0%
Beech	54,300,000	1,100,000	200,000	0.4%
Other Soft Hardwoods	32,400,000	1,500,000	400,000	1.2%
Other Hard Hardwoods	17,200,000	900,000	100,000	0.6%
Total Hardwoods =	811,700,000	28,900,000	8,600,000	1.1%
All Species =	1,026,300,000	37,900,000	9,000,000	0.9%

The estimated 1,026,300,000 board feet of sawtimber suggests average production of 4,057 board feet per acre of forestland. Moreover, managed stands, according to regional industry representatives, typically produce no more than 2,000-3,000 board feet per acre and the Forest Service numbers, therefore, may well overstate yields for Broome's largely

⁸ Sawtimber refers to the net volume of saw logs in trees.

⁹ Average annual removals refers to the net growing stock harvested, killed in logging operations, cleared or reclassified from forest to non-forest land. Totals may not agree, due to rounding.

Broome County, New York

Agricultural Economic Development Plan

unmanaged woodlands. Moreover, annual growth in the case of managed stands is about 100 board feet per year per acre. This suggests a gain in sawtimber of roughly 25,000,000 board feet per year as compared to Forest Service estimate of 39,700,000 board feet. Annual growth, nevertheless, does appear to exceed removals.

The Forest Service data indicates cutting rates within the County are just slightly above New York State's 0.8% average and below those of neighboring Pennsylvania (1.0%) and the New England region (1.3%).¹⁰ The rates for most species are sustainable, with the exception of White Oak. Indeed, the ratio of annual growth to removals as well as other evidence, indicates a continually maturing forest.

Neither hardwoods nor softwoods are being harvested to the extent they could be. This is not good for wildlife management, the long-term vitality of woodlands or the forest industry. Too many large trees crowd out the understory vital to regeneration and to the animal populations for cover and as food. More timbering using best management practices would create a healthier forest for the long-term.

There are, nevertheless, serious concerns with the harvesting patterns that have been taking place throughout much of the hardwood-rich Northeast. The trend has been to "high-grade" forests to remove the better quality trees while leaving behind the less-valuable stock. This is what is happening with the Oak. It is a result of the general lack of demand for low-grade logs and species, particularly since the Proctor and Gamble facility in nearby Mehoopany, Pennsylvania, stop taking this material, importing Brazilian pulpwood as a substitute.

There is a threat that local forests will be taken over by low grade species if markets are not identified for them as well. Development of markets such as the OSB plant in Deposit, employment of sustainable forest management practices, deliberate efforts to cull or market low-grade materials and commercial thinning can all help to address high-grading issues but they will remain a challenge for the industry in this region.

Hardwood lumber production Statewide is up 50% since 1990. Hardwood lumber is also a niche business from a world-wide perspective. It is less affected by cheap softwood imports from South America, plus little cutting of hardwoods is allowed on Federal lands, giving eastern producers some opportunities. Broome County is a good source and the contributions of the industry to the County economy, if not up to potential, are significant. The following table summarizes some estimates of economic impact based on the FIA 1996 report on roundwood production in Broome County:

¹⁰ Source: "Cutting Activity in New York's Forests," USDA Forest Service, Northeastern Forest Experiment Station, Radnor, PA.

Broome County, New York

Agricultural Economic Development Plan

Table 2.8 - Broome County Roundwood Production, 1996

<u>Species Group</u>	<u>Saw Logs (MBF)</u>	<u>Stumpage Price*</u>	<u>Value</u>
Hemlock	1,113	\$50	\$55,650
Red Pine	1,298	60	77,880
White Pine	1,239	90	111,510
Other Softwoods	668	75	50,100
Ash	747	350	261,450
Aspen	335	50	16,750
Basswood	248	200	49,600
Beech	1,257	70	87,990
Yellow Birch	117	150	17,550
Other Birch	107	100	10,700
Black Cherry	331	1,080	357,480
Elm	20	90	1,800
Hickory	17	110	1,870
Hard Maple	1,518	740	1,123,320
Soft Maple	1,528	230	351,440
Select Red Oak	863	670	578,210
Other Red Oak	12	335	4,020
Select White Oak	188	280	52,640
Other White Oak	171	140	23,940
Black Walnut	12	440	5,280
Yellow Poplar	4	150	600
Other Hardwoods	<u>95</u>	<u>75</u>	<u>7,125</u>
TOTALS	11,188	\$290	\$3,246,905
Pulp/Composite	11,660 cords	\$8	\$93,280
Firewood	18,035 cords	\$9	<u>\$162,315</u>
TOTAL SALES			\$3,502,500

* Per thousand board feet (MBF) on the stump based on NYS-DEC Stumpage price report for Winter, 2000. Does not include income from harvesting or processing.

The economic multiplier for wood products, as indicated earlier, is 1.78 and this suggests the \$3,502,500 in estimated sales (in rounded prices on the stump) generates a minimum annual economic impact for Broome County of \$6,234,450 (some \$2,731,950 of additional

Broome County, New York

Agricultural Economic Development Plan

activity from related enterprises). These numbers are more than substantiated by County Business Patterns - 1998 data from the Census Bureau, indicating that the County had 10 lumber and wood products manufacturers, employing 318 individuals and with a combined payroll of \$7,876,000. Two of those manufacturers were sawmills with some 40+ of the employees represented, yielding an estimated minimum payroll of \$990,000.

The Empire State Forest Association reports, based on 1992 data, that New York State forest-related enterprises produced \$2.25 in valued-added for every dollar of payroll generated, suggesting total additional impact from wood manufacturing in the area of \$2,230,000, almost exactly the same figure as the multiplier data indicates. Not included are the 29 non-employers with receipts of \$1,240,000 according to the 1997 Economic Census. These self-employed individuals could well represent persons engaged in the firewood processing business, for example, that represents still additional economic activity. Altogether, the forest industry represents a total of at least \$7,500,000 not including the secondary manufacturing facilities that employ another 250-280 persons, independent loggers or forestry support services (e.g. consulting foresters).

The combined value of the County's timber assets (what they represent in total at any given point even if only a portion is cut in any given year) is also worth considering. The following table illustrates this for major species, based on current stumpage prices:

Table 2.9 - Broome County Sawtimber Value

<u>Sawtimber Species</u>	<u>Base Group</u>	<u>Stumpage Price</u>	<u>Total Value</u>
Eastern Hemlock	183,600,000	\$50	\$9,180,000
Select White Oak	47,700,000	280	13,356,000
Select Red Oak	97,700,000	670	65,459,000
Hard Maple	72,000,000	740	53,280,000
Soft Maple	290,000,000	230	66,700,000
Ash	76,800,000	350	26,880,000
Aspen	81,200,000	50	4,060,000
Basswood	22,800,000	200	4,560,000
Beech	54,300,000	70	3,801,000
Other Species	100,200,000	75	7,515,000
All Species =	1,026,300,000	\$248	\$254,791,000

Altogether, the County's forests represent a natural resource with a current value of over

Broome County, New York

Agricultural Economic Development Plan

one-quarter billion dollars. While cutting of this entire stock at once is, obviously, not desirable, it is self-replenishing and, with sustainable management practices, can actually be enhanced in value even as it is being removed, a feature of almost no other natural resource.

The forest industry as a whole can fairly be described as somewhat underdeveloped but these statistics indicate it is, nonetheless, a significant economic asset to Broome County. Moreover, below average cutting rates for certain species within the County suggest there is additional harvest potential. The quality is relatively good at present with 75% of hardwoods rated as Grade 3 or better, just slightly below the State average of 76%. The County's hardwood stock also primarily consists of lighter-colored woods which have been more in demand in recent years. It represents a self-replenishing resource if managed correctly. Farm and woodlot owners in the County can, if they want to do so, generate income from it and this, in turn, benefits the tourism industry by helping to maintain the County's appealing character.

Much like the remainder of the agricultural sector, Broome County's forest industry would benefit by the development of additional secondary processing and value-added industries that would utilize locally produced wood. Niches could include specialty products for marketing to nearby metropolitan areas (e.g., fence boards, quality dimension lumber, wood flooring, wooden lawn furniture). Prefabricated wooden building manufacturing is already done in the County and this is an illustration of the possibilities. The nearby Mills Pride company manufactures solid wood doors for the ready to assemble market and is another excellent example.

Unfortunately, Mills Pride chose to locate in Sayre, Pennsylvania rather than New York due to taxes and other considerations. Nevertheless, it does provide an outlet for regional wood products of the sort needed. Other Pennsylvania manufacturers also look to the Southern Tier of New York for logs and this suggests the opportunity to do more value-added processing locally.

The key is to approach development from the standpoint of the market first and the resource second. Nevertheless, the resource is available locally and, therefore, Broome is a natural location for these industries if the County is willing to provide tax incentives to level the playing field with neighboring lower-taxed Pennsylvania. An appropriate vehicle is the Broome County IDA's tax-abatement program. It offers new assemblers, manufacturers, processors and distributors five years of 75% real property tax abatements on improvements, five more years at 50% and another five years at 25%, such that the property wouldn't be fully taxable until the sixteenth year.

While finding additional uses for low-grade sawtimber is a challenge (and a necessity), there

Broome County, New York

Agricultural Economic Development Plan

are some distinct opportunities given the large quantity of growing stock available. These include pallet manufacturing, firewood, wood pellets and wood chips for sale to Western Pennsylvania pulp and paper mills or OSB manufacturing facilities such as the one in Deposit. Mulching facilities are another possibility and the County's geography puts it within reasonable trucking distance to all the major metropolitan markets that would purchase the product. Export opportunities also exist in high-grade products if enough volume can be identified and marshaled on a regular basis.

There are, too, a number of possibilities for using forest land to develop recreational attractions. If such activities are constructed as recreational leases they also hold the potential to generate added income for forest owners and, thereby, help the industry. Forest land is ideally suited to mountain biking, wilderness camping, hunting and other similar endeavors. If promoted properly in conjunction with area bed and breakfasts and restaurants, such activities can contribute in substantial ways to the economy. Nearby forest industry owners in Cayuta and Hancock, for example, typically lease their regional land holdings for hunting to help off-set the average \$9/acre/year holding costs associated with the timberland.

Unfortunately, New York has been a high tax state and, while many recent reforms have helped to lower taxes on farmers, seniors and other residents, forest land is still often taxed at rates that exceed the annual income which can be derived from forest management.¹¹ This can produce poor stewardship when farmers and other landowners are forced to do quick harvests to pay taxes. This has, in turn, led to some backlash efforts by individual municipalities to regulate all forest activity with very negative impacts on the industry. The best approach probably involves encouragement of sustainable forest management practices, combined with right-to-forest protection and positive tax relief.

Section 480(a) of the Real Property Law provides a measure of relief for participating landowners, but there is a strong disincentive to promote this program because the tax "costs" (savings to individual landowners) must be made up within the municipality and the strings attached in terms of management are too entangling. Clearly, there are no compelling reasons for private owners to hold onto forest land except for speculative purposes and this poses a substantial threat to long-term maintenance of forest land uses.

A better solution for taxing forest property would be to collect at the time of harvest based on a percentage of sales or some similar measure of productivity. This is a matter that should be pursued by the Agricultural and Farmland Protection Board, working together

¹¹ A recent analysis of real estate taxes on private forest land in the Catskill counties of New York State indicated annual tax rates of \$7-\$33/acre compared to forest revenues averaging less than \$5/acre. Local timber managers indicate the cost is approximately \$9/acre and needs to be less than half that.

Broome County, New York

Agricultural Economic Development Plan

with organizations should as Farm Bureau and the Empire State Forest Association. At a minimum, more training for local assessors and more effective programs for determining the real economic value of forest land are needed.

Broome County, New York

Agricultural Economic Development Plan

2.8 Broome County Agriculture - Marketable Comparative Advantages

Considering the foregoing, Broome County possesses several marketable comparative advantages for agricultural economic development. These include the following:

- Broome County offers an appealing blend of urban and rural environments in very close proximity, providing multiple high quality lifestyle options for prospective investors in agribusiness ventures.
- Broome County's urban areas and five established farm markets provide outlets for agricultural niche products, including fruits, vegetables, nursery stock, greenhouse plants and ethnic specialties.
- Broome County's agricultural sector, because of the presence of these markets, has already both diversified and specialized, providing opportunities for additional producers to build on this organizational infrastructure, which includes several already established CSA's and the State NOFA offices.
- Broome County's location, history and working landscapes, combined within initiatives such as the Susquehanna Heritage Area and greenway system of trails offer an opportunity to engage in agricultural tourism and package direct marketing efforts with other tourist attractions.
- Broome County's urban population and large number of wealthier households, combined with nearby farmland make it an excellent location for equine operations of various types.
- Broome County's industrial parks, vacant brownfield sites and economic incentive programs (including multiple EDZ benefits) combined with locational advantages, make it an excellent place for agricultural processors and distributors. The Hansmann's Mills food processing operation provides an excellent example of the potential.
- Broome County's valley soils are excellent for the types of niche agricultural products showing promise for future development.
- Broome County, as the home of IBM, possesses a number of high-technology resources, plus it is the location of Binghamton University, offering prospective agribusinesses a source of both skilled labor and supportive research capacities. It is also a central rural/urban location for research symposiums such as the recent "Northeast

Broome County, New York

Agricultural Economic Development Plan

Agroforestry and Carbon Conference" sponsored by Cornell, Penn State, the SUNY College of Environmental Science & Forestry at Syracuse and the USDA National Agroforestry Center.

- Broome County's Aurora Project, a business recycling initiative, could provide the organizational infrastructure for an urban waste wood recycling program, also taking advantage of sawmill wastes from many nearby mills to produce composite wood products. An OSB plant already using some of the sawmill waste products is located in Deposit.
- Broome County, as the I-81 gateway to the Finger Lakes, Leatherstocking, Catskill and North Country regions of New York captures some 6,000 daily visitors at the Kirkwood Welcome Center. This is an ideal place to both directly and indirectly farm products.