File cost accounts

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CHANGES IN LIVESTOCK AND CROP FARMING IN NEW YORK STATE

by

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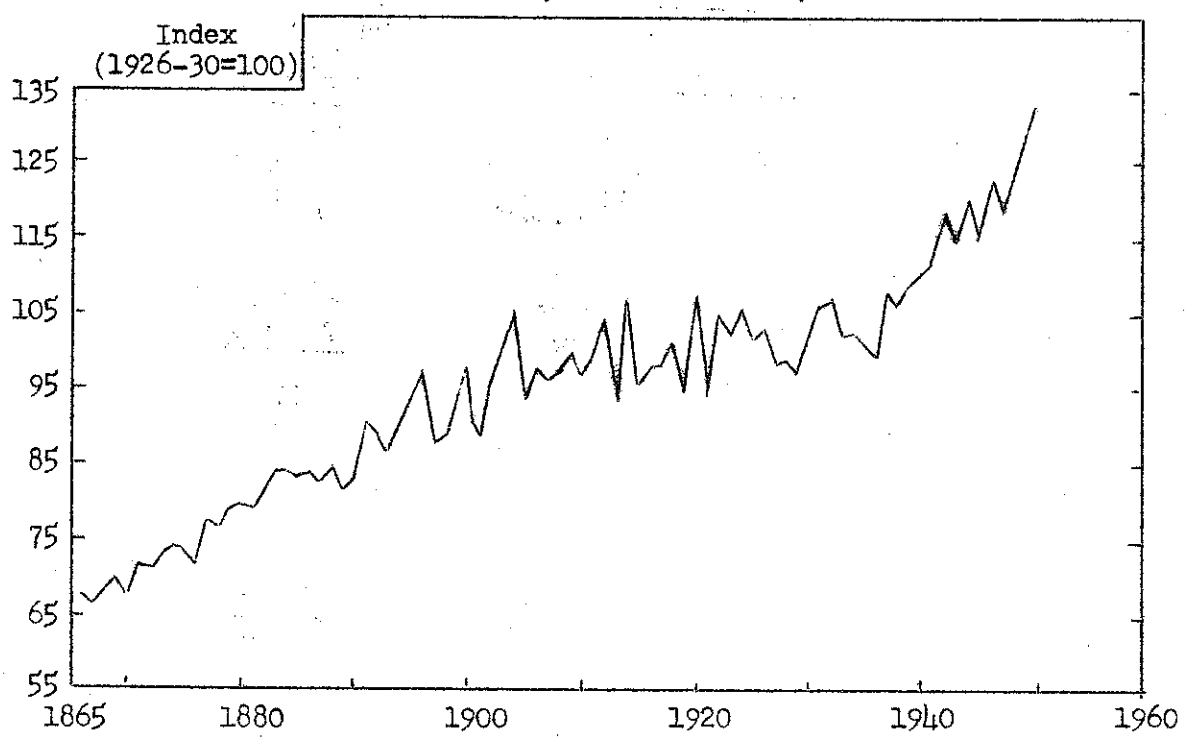
November, 1951

AGRICULTURAL PRODUCTION IN NEW YORK

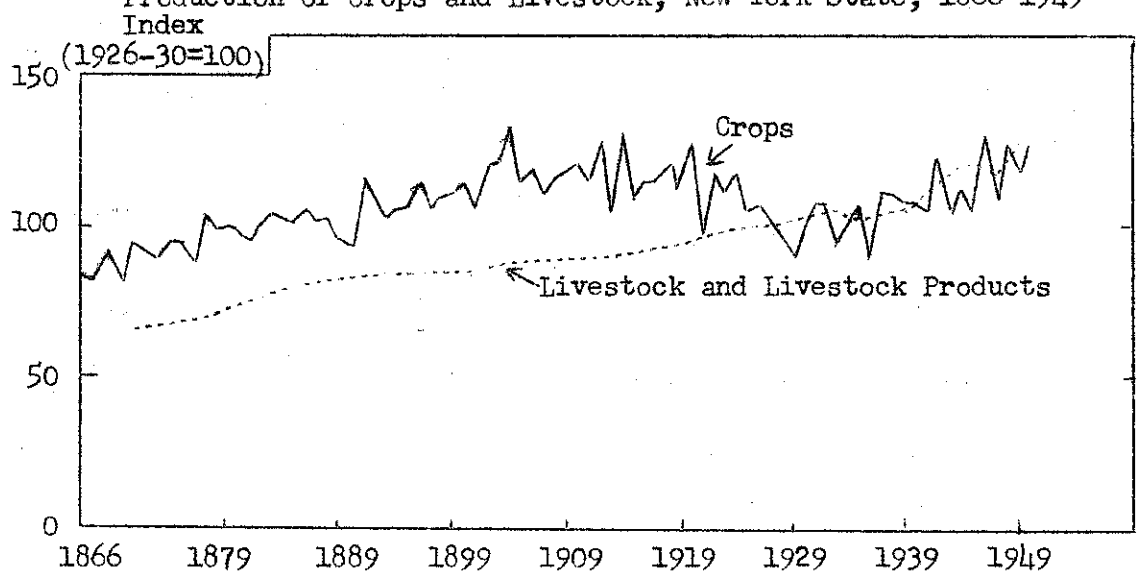
Index of Production, New York State, 1865-1950



Source: A.E. 783

Since 1865 the trend of production on New York farms has been upward. It was rapid until World War I, slowed somewhat between World War I and World War II, and during and since World War II has moved upward more rapidly than at any time in our history.

Production of Crops and Livestock, New York State, 1866-1949



Source: A.E. 783

Both crop and livestock production have shown a long time upward trend. The trend in livestock and livestock products has been almost steadily upward while the crops show a great deal of year to year variation and declined from 1919 to 1929.

RELATIVE IMPORTANCE AND YIELDS OF HAY, GRAIN, AND CORN SILAGE, NEW YORK STATE AND COST ACCOUNT FARMS, 1949

	New York State	Cost Account Farms
	acres	acres
Cropland	8,365,944*	5,903
Pasture	6,778,047*	1,935
	per cent of total	per cent of total
Crop area:		
Oats	7	11
Wheat	4	12
Corn for grain	2	6
Corn for silage	7	7
Hay	47	30
	bushels or tons	bushels or tons
Yield per acre:		
Oats	29	27
Wheat	28	32
Corn for grain	44	45
Corn for silage	10.3	10.1
Hay	1.3	1.7

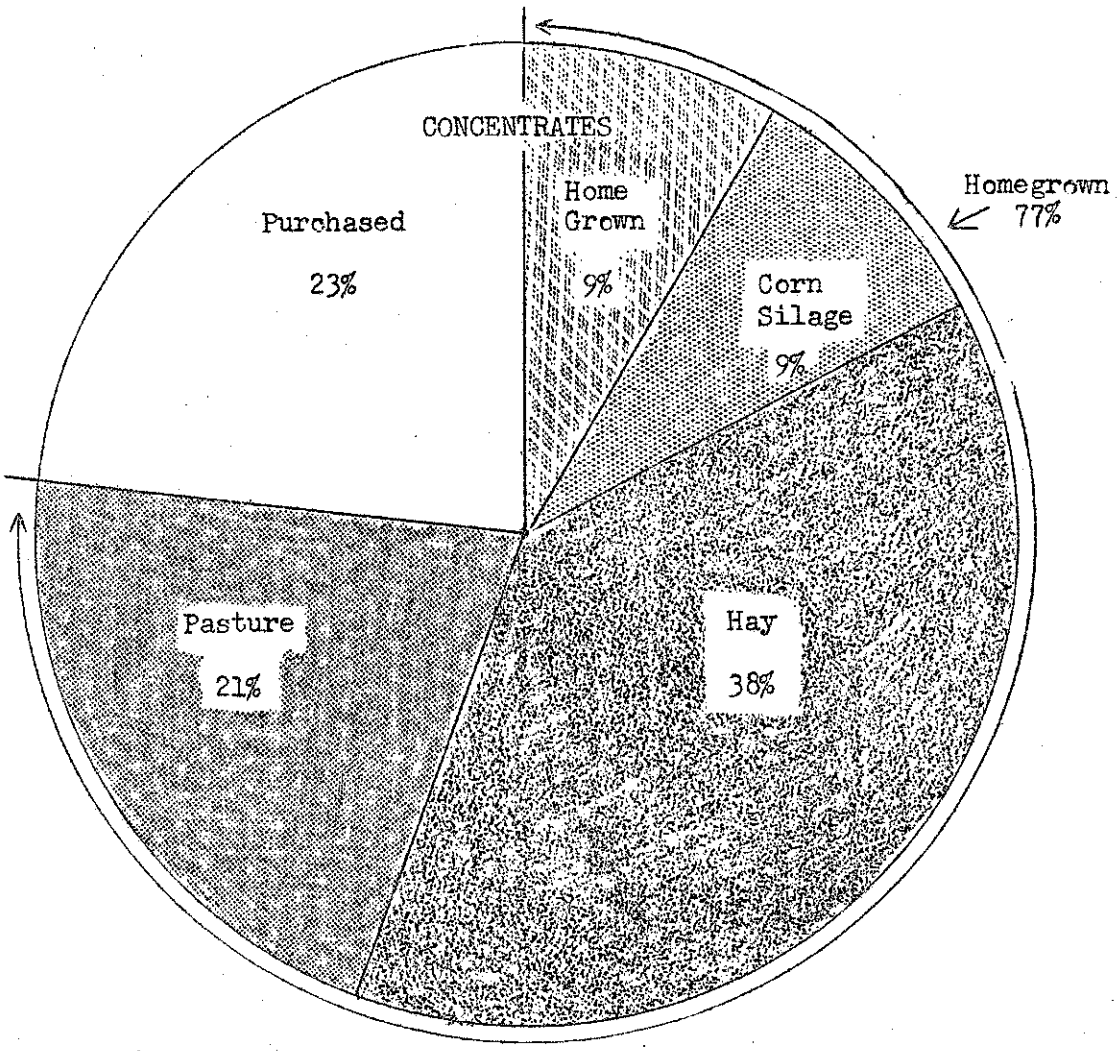
*1945 Census of Agriculture

About three-fourths of the income to farmers in the State is from the sale of livestock and livestock products and of feed crops such as oats, wheat, hay, corn, and buckwheat. The remaining one-fourth is mainly from the sale of fruits and vegetables.

The production of feed crops for livestock requires the use of about 70 per cent of the 8,365,944 crop acres in the State. About 6,778,047 acres of pasture are also used in the livestock production.

In 1949, there were 43 farms that kept Cost Accounts in cooperation with the College of Agriculture. These included about .06 per cent of the cropland and .03 per cent of the pasture. The proportion of the crop area devoted to feed crops was similar to that for the State. There were slightly more small grains and less hay. The average yields were about the same as those for the State except for hay which was about one-fourth higher on Cost Account farms.

PERCENTAGE OF TOTAL FEED FROM VARIOUS SOURCES CONSUMED BY LIVESTOCK
NEW YORK STATE, AVERAGE 1945-1949
(Total Digestible Nutrients Basis)



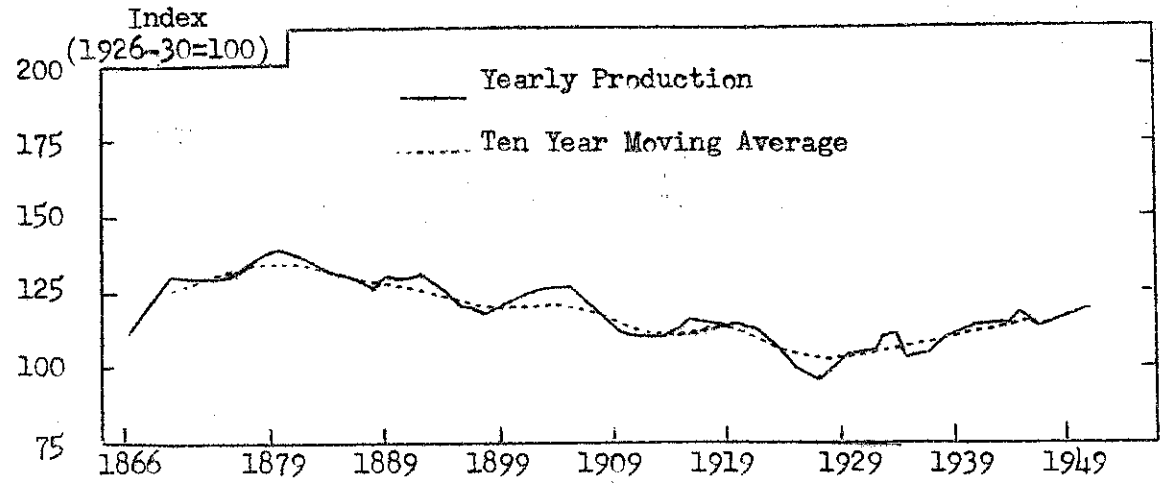
Source: A.E. 740

The feed which is produced on the 5,821 thousand acres of cropland in feed crops and 6,778 thousand acres of pasture provides about 77 per cent of the total feed consumed by livestock on farms in the State. The additional 23 per cent of the feed was purchased concentrates and totaled 2,226 thousand tons in 1949.

If the purchased concentrates, most which are imported into the State, were all corn (which of course they are not), it would have required about one and two-thirds million acres of good Iowa corn land to supply them.

CATTLE IN NEW YORK STATE

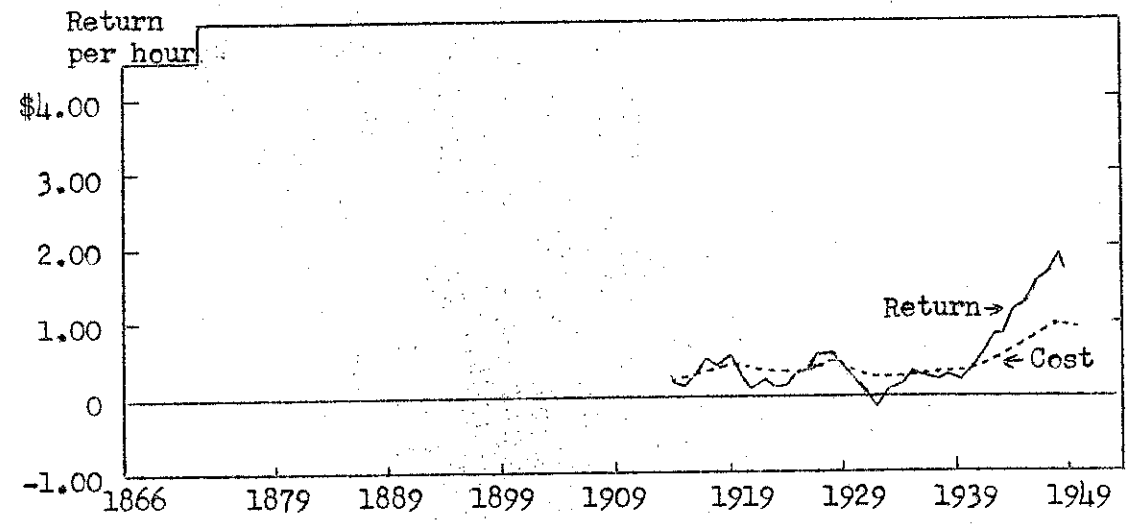
Number of Cattle and Calves



Source: A.E. 783

The number of cattle and calves in New York State increased until 1879 and showed a downward trend from then until about 1928. The recent trend has been upward. The cattle numbers show about a 16 year cycle.

Return Per Hour of Labor on Dairy Cows and Cost of Labor Per Hour



Source: Farm Cost Account Reports

Cost Account information is not available before 1914. From then until the early 30's, the return per hour of labor on dairy cows tended to be somewhat below the average cost of labor. With this situation, we would expect the downward trend in livestock numbers which was shown on the graph above. From the early 1930's to 1949 and particularly during the war years, the return per hour of labor increased more rapidly then the cost of labor. This means that farmers in the later years were making more than wages. With this situation one could expect cattle numbers to increase as they did.

CATTLE IN THIS AREA

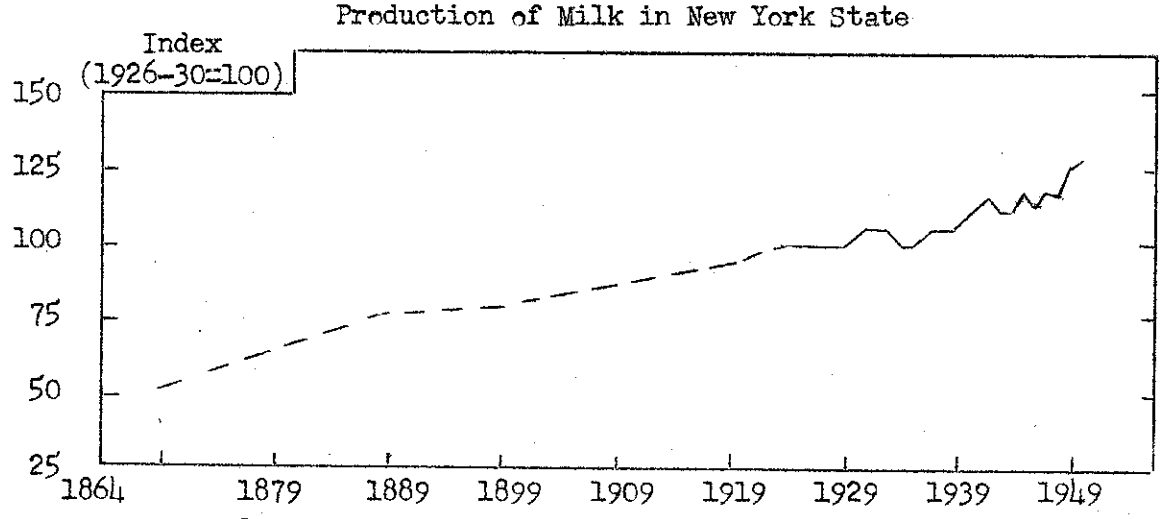
Number of Dairy Cows

Counties	Number			Percentage change	
	1880	1940	1950	1880-1940	1940-50
Oneida	68,049	59,266	53,642	-13	-9
Chenango	53,489	45,022	41,976	-16	-7
Otsego	48,827	49,424	46,510	1	-6
Delaware	57,673	71,606	65,432	24	-9
Herkimer	48,237	37,477	34,663	-22	-8
State	1,437,855	1,269,653		-12	

Source: U. S. Census

Not all areas nor all counties have had the same trend in livestock numbers. In some areas the numbers have increased, others have merely held their own, and still in other areas livestock numbers are on the decline.

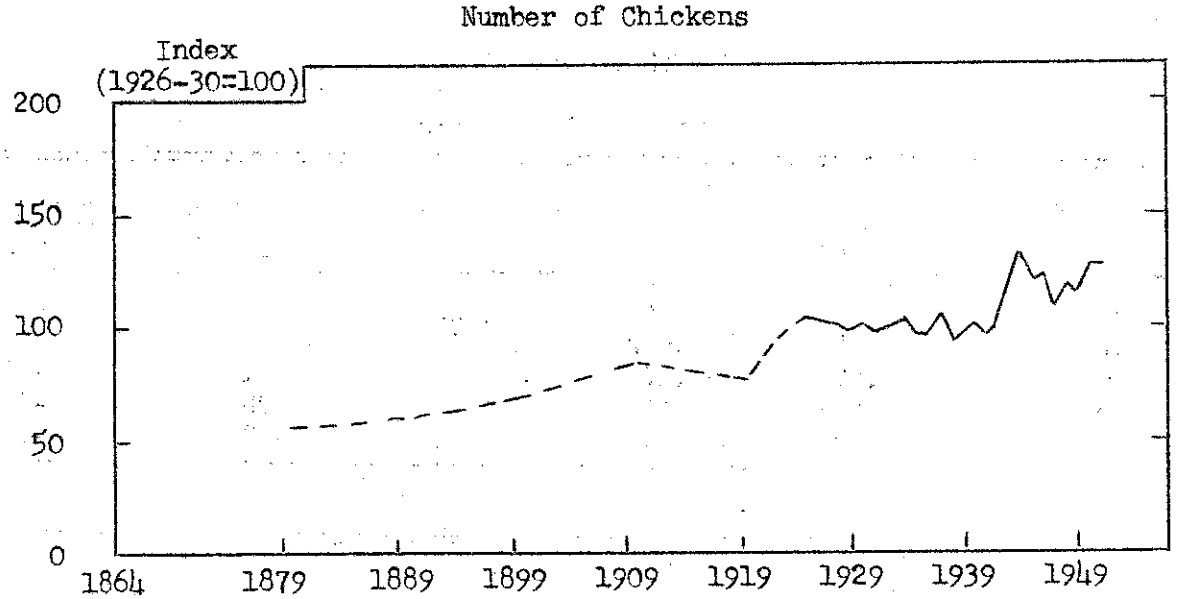
Production of Milk in New York State



Source: A.E. 783

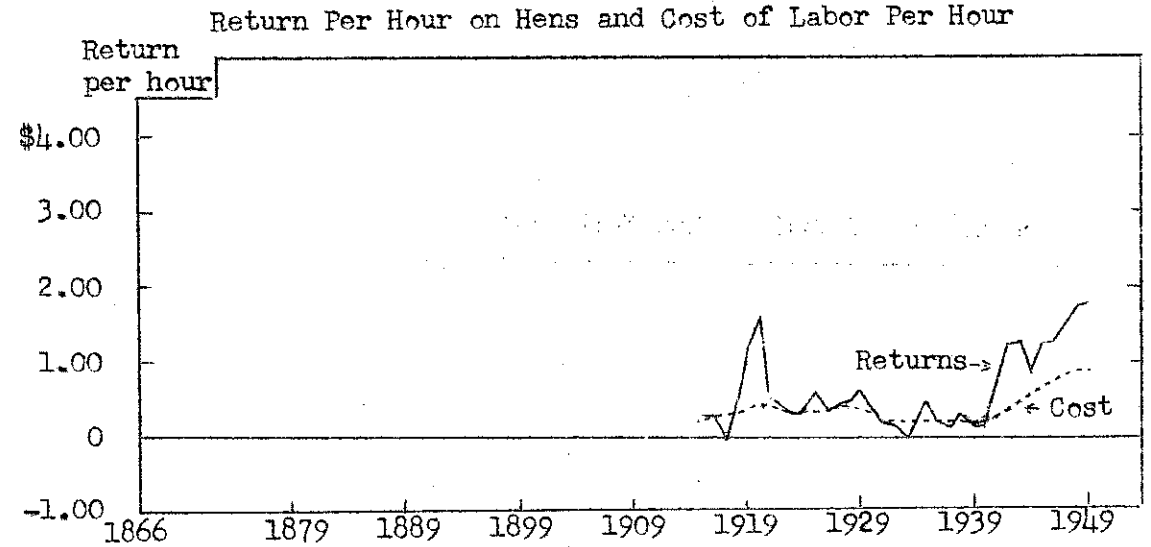
Milk production in the State has shown an almost continual trend of increase. This trend has been accentuated during the last few years. The increase is both due to changes in livestock numbers and milk production rates per cow. Milk production rates for local areas are not readily available.

CHICKENS IN NEW YORK STATE



Source: A.E. 783

The number of chickens on farms from the middle 20's until World War II was fairly constant. During World War II the tendency was for the number to be increased.



Source: Farm Cost Account Reports

The return per hour of labor on hens and the cost of labor were almost the same for the years between World War I and World War II. This corresponds to the constant number of chickens during that time. Since the beginning of World War II, the return per hour of labor on hens has been considerably above the cost of labor and this profitable situation has influenced farmers to increase the number of chickens on farms.

CHICKENS IN THIS AREA

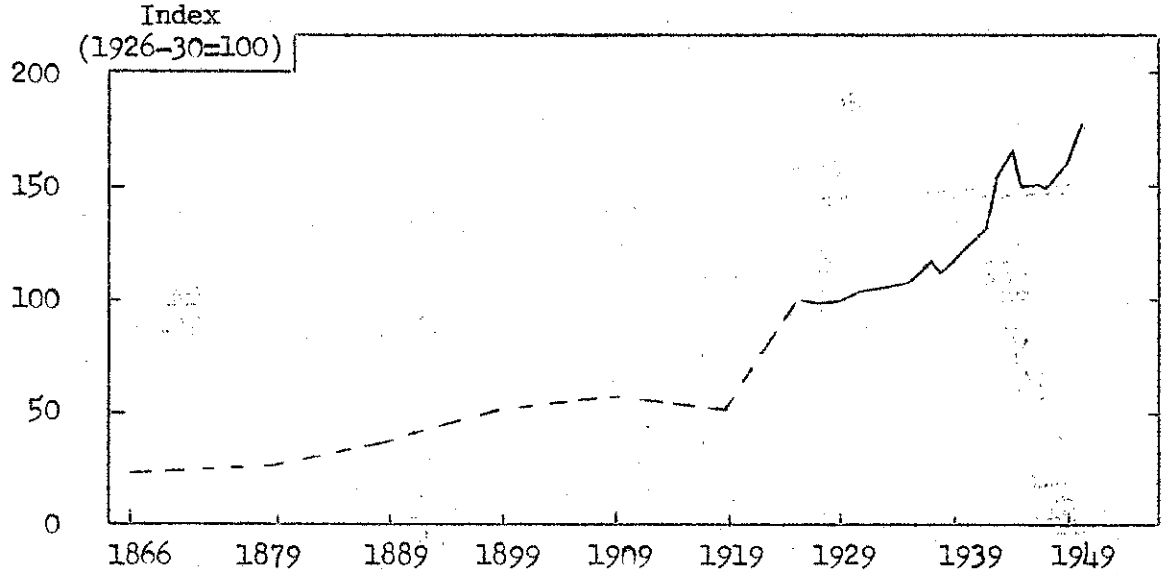
Number of Chickens

Counties	Number			Percentage change	
	1880	1940	1950	1880-1940	1940-50
Oneida	183,395	246,410	189,224	34	-23
Chenango	64,197	350,788	261,309	446	-26
Otsego	140,006	374,740	334,136	168	-11
Delaware	98,821	248,022	297,125	151	20
Herkimer	88,877	134,195	93,911	151	-30
State	6,448,886	11,190,414		74	

Source: U. S. Census

Not all areas of the State have participated equally in the increasing number of chickens in New York State. Generally speaking, the Hudson Valley and Central New York areas have shown tendencies for increased poultry numbers while the Northern and Southern Tier counties have shown a tendency for reduced numbers.

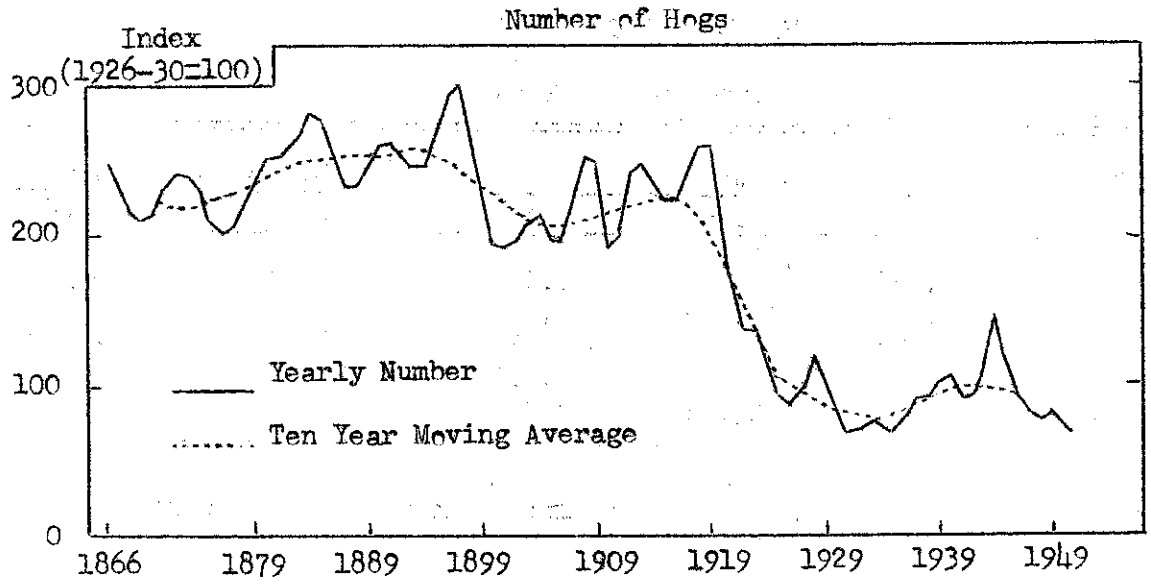
Eggs Produced on New York Farms



Source: A.E. 783

The production of eggs on farms in New York State has been generally upward. This, of course, has been mostly due to higher rates of production of layers. During the more recent years, the increase production per layer has been coupled with an increasing number of layers with the result that the egg production on New York farms has increased at a more rapid rate.

HOGS IN NEW YORK STATE



Source: A.E. 783

Hogs are not one of the more profitable enterprises in New York State. Generally speaking, they cannot compete with the cow and the hen for feed. In this feed deficit area it is cheaper to ship the corn from the midwest in the form of hogs than to ship it in the form of grain and feed it to hogs in New York State. For these reasons with the development of good transportation facilities for meat, there has been a decline in the number of hogs in the State. During the early war years patriotism and apprehension as to meat supplies caused a slight tendency for increase, but with the end of hostilities the number has declined rapidly.

HOGS IN THIS AREA

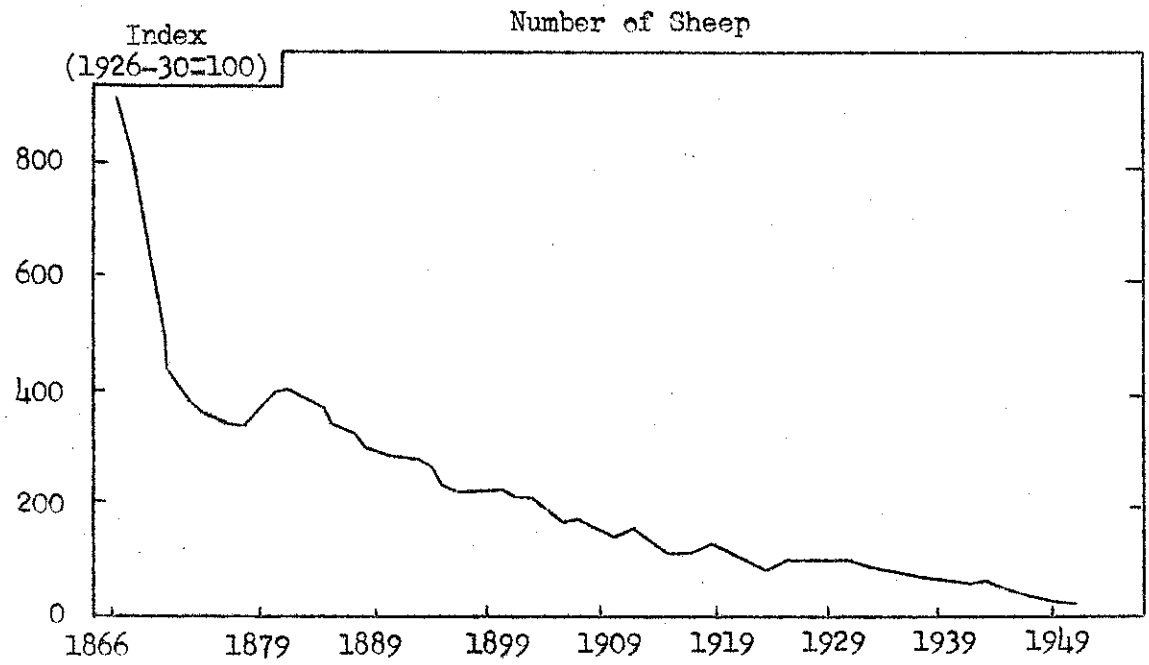
Number of Hogs

Counties	Number			Percentage change	
	1880	1940	1950	1880-1940	1940-50
Oneida	22,215	5,007	4,126	-77	-18
Chenango	13,402	2,017	1,481	-85	-27
Otsego	15,156	2,735	2,302	-82	-16
Delaware	15,656	2,112	1,753	-87	-17
Herkimer	14,657	1,713	1,001	-88	-42
State	751,907	194,708		-74	

Source: U. S. Census

The decline of hogs is general in all areas of the State. There are only two counties in which there has been some tendency for increase and even in these counties the increase is relatively small.

SHEEP IN NEW YORK STATE



Source: A.E. 783

Sheep production on New York farms has been on the decline since 1866. The recent figures show a furtherance of that trend.

SHEEP IN THIS AREA

Number of Sheep

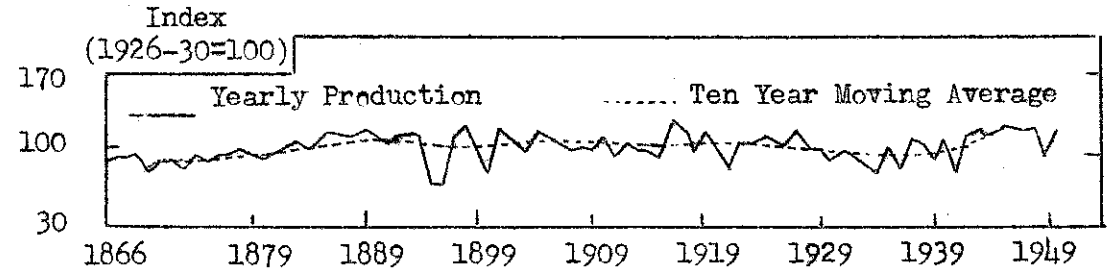
Counties	Number			Percentage change	
	1880	1940	1950	1880-1940	1940-50
Oneida	18,539	1,399	501	-92	-64
Chenango	26,341	748	799	-97	7
Otsego	40,834	2,651	2,435	-94	-8
Delaware	29,668	1,533	1,378	-95	-10
Herkimer	5,015	299	201	-94	-33
State	1,715,180	285,172		-83	

Source: U. S. Census

The decrease in number of sheep has been common to almost all counties. In the one or two counties where there has been an increase, it has been slight.

HAY IN NEW YORK STATE

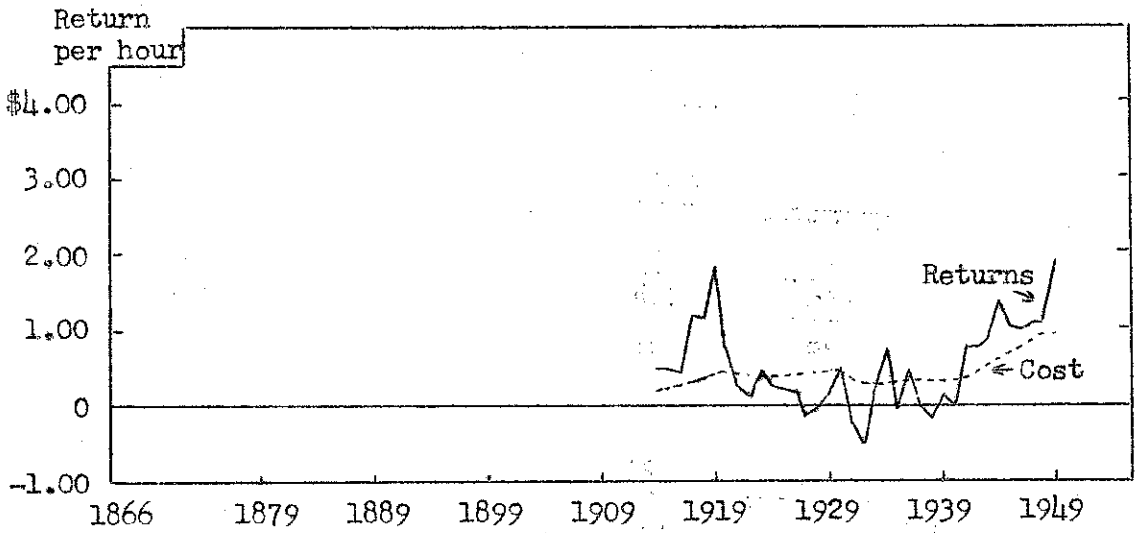
Production of Tame Hay



Source: A.E. 783

The production of hay in New York State over the past 100 years has shown a very slight trend of increase. Much of this has come in the last 15 years.

Return Per Hour on Hay and Cost of Labor Per Hour



Source: Farm Cost Account Reports

Hay production, generally, has been unprofitable and farmers have grown only the amount which they needed to maintain their more profitable dairy enterprise. In recent years because of the larger number of dairy cows, the returns from hay have been somewhat higher and the acreage has gone up very slightly.

HAY IN THIS AREA

Acres of Hay

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	160,569	122,500	105,560	-24	-14
Chenango	139,607	113,713	97,814	-19	-14
Otsego	150,483	125,702	108,073	-16	-14
Delaware	159,525	149,424	143,382	-6	-4
Herkimer	103,390	79,339	73,871	-23	-7
State	4,644,000	3,808,000		-18	

Source: U. S. Census

Over the years, the number of acres of hay in New York State has decreased for most counties. This decrease in acreage has been offset by increased yields with the result that the production of hay has remained about constant.

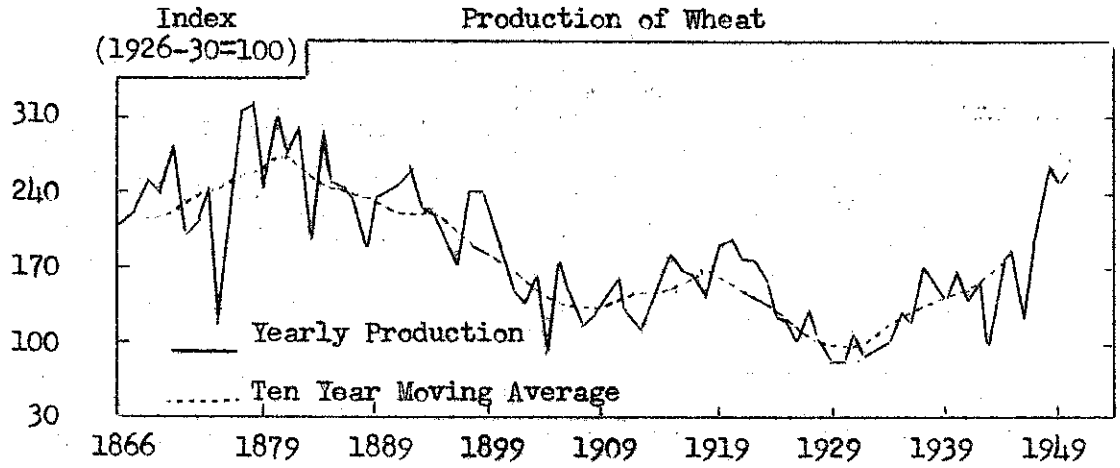
Yield Per Acre of All Hay

Counties	Tons per acre			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	1.3	1.5	1.7	15	13
Chenango	1.2	1.1	1.6	-8	45
Otsego	1.2	1.3	1.5	8	15
Delaware	1.2	1.2	1.4	0	17
Herkimer	1.5	1.4	1.6	-7	14
State	1.1	1.2		9	

Source: U. S. Census

The 1949 census year was not a good hay year. Generally speaking, because of better farming methods, the use of more fertilizer, and the growing of hay on land more adapted to its production, the yield per acre in most counties has shown a slightly upward trend even though the 1949 census reports do not indicate such a trend.

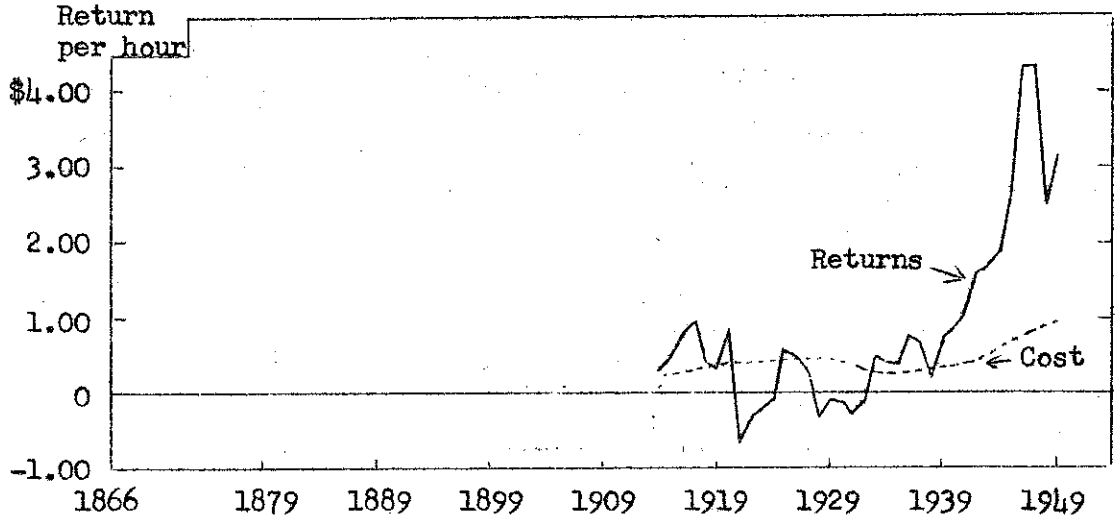
WHEAT IN NEW YORK STATE



Source: A.E. 783

The production of wheat in New York State has showed more change than most other crops. From a peak in 1879 it decreased until World War I, increased during that time and showed a further decline to the depression years in the early 30's. Since then it has shown a marked increase.

Return Per Hour on Wheat and Cost of Labor Per Hour



Source: Farm Cost Account Reports

During the years for which there are Cost Account records, the changes in production of wheat have corresponded to the return per hour of labor on wheat. During the period between World War I and II, wheat returned less than the cost of labor in most years. Following the depression, wheat became relatively more profitable and during and since World War II has been one of the most profitable crops in the State as measured by returns per hour of labor. This increase in relative profitableness, of course, reflects itself in the amount of wheat produced.

WHEAT IN THIS AREA

Acres of Wheat

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	5,406	1,654	2,506	-69	52
Chenango	3,323	368	1,395	-89	279
Otsego	3,974	286	1,037	-93	263
Delaware	1,882	26	131	-99	404
Herkimer	1,280	167	1,036	-87	520
State	737,000	312,000		-58	

Source: U. S. Census

Not all areas of the State have shown the trend of increase in production which is evident for the State as a whole. In recent years, those areas which are particularly adapted have tended to expand their acreage more than those which are less adapted.

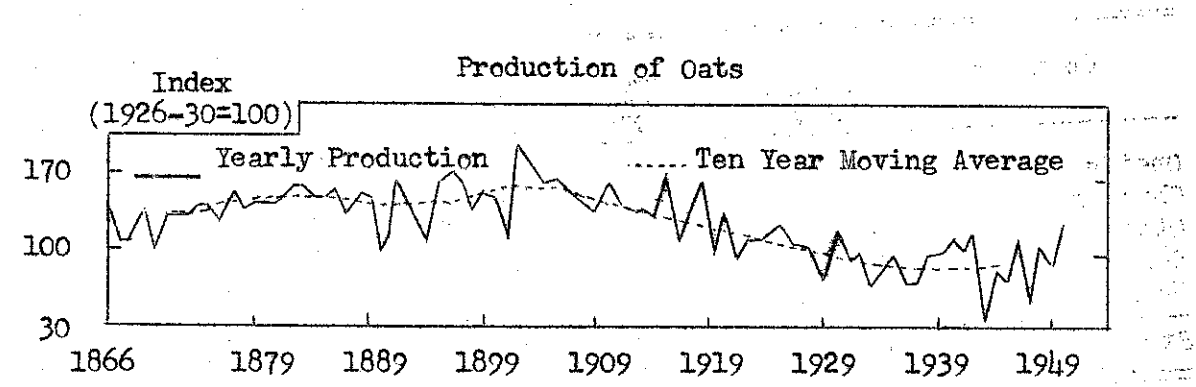
Yield Per Acre of Wheat

Counties	Bushels per acre			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	17	26	31	53	19
Chenango	13	20	29	54	45
Otsego	16	24	30	50	25
Delaware	13	25	32	92	28
Herkimer	18	14	30	-22	36
State	16	24		50	

Source: U. S. Census

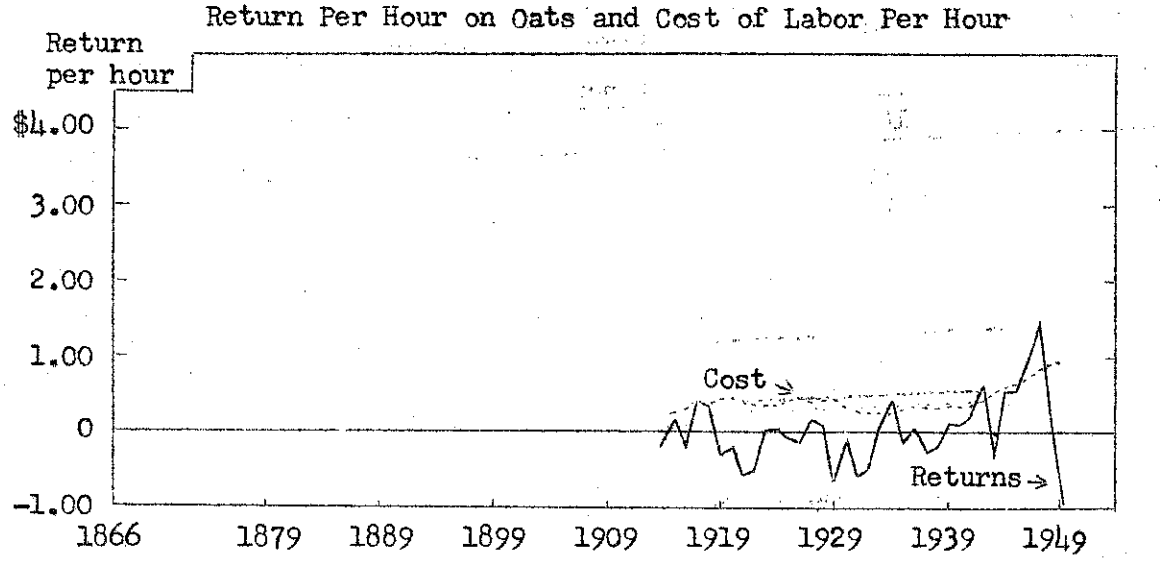
Nearly all areas of the State have enjoyed some increase in the yield per acre on wheat. The areas which are most adapted to the crop has shown a tendency for greater increases.

OATS IN NEW YORK STATE



Source: A.E. 783

The production of oats tended to increase during the last part of the 19th Century, but has gone down steadily during the 20th Century.



Source: Farm Cost Account Reports

Oats generally have not been profitable. Farmers tend to plant only as many oats as they need in order to establish their seedings. They feel that they will lose less by seeding with oats and that they get better seedings by that means than other comparable methods. Because of the high profits for wheat, there is a tendency recently to make more seedings with wheat and less with oats even though wheat is generally considered as a poor nurse crop.

OATS IN THIS AREA

Acres of Oats

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	31,664	13,423	11,356	-58	-15
Chenango	18,368	7,833	6,928	-57	-12
Otsego	35,152	13,150	10,782	-63	-18
Delaware	27,048	3,825	2,146	-86	-44
Herkimer	19,759	8,986	8,496	-55	-5
State	1,261,000	838,000		-34	

Source: U. S. Census

In most counties the acreage of oats has been downward over the years and during the last decade. There are some counties, however, which have shown some increase in acreage in recent years. Generally speaking, these counties have somewhat higher yields than for most of the State.

Yield Per Acre of Oats

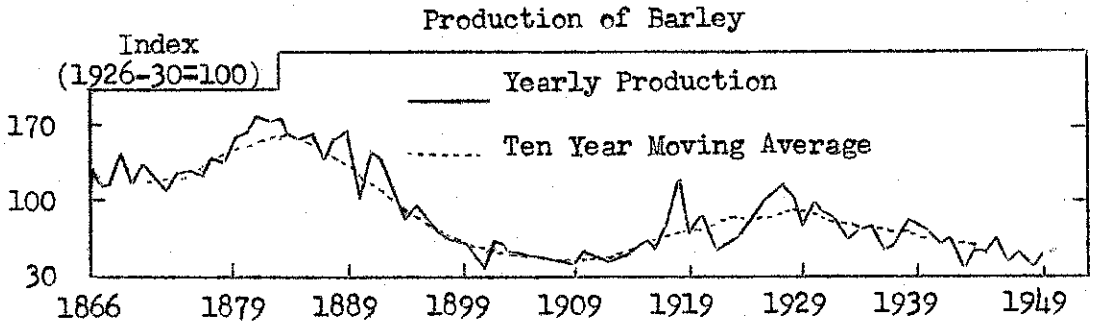
Counties	Bushels per acre			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	35	38	32	9	-16
Chenango	35	32	34	-9	6
Otsego	27	32	34	19	6
Delaware	29	33	34	14	3
Herkimer	34	31	29	-9	-6
State	30	31		3	

Source: U. S. Census

Although oat yields have changed only slightly during the years for which we have records, there is some indication from yields on some farms that higher yields than we now have are distinct possibilities. Perhaps with higher yields oats will be more profitable.

BARLEY IN NEW YORK STATE

Production of Barley



Source: A.E. 783

BARLEY IN THIS AREA

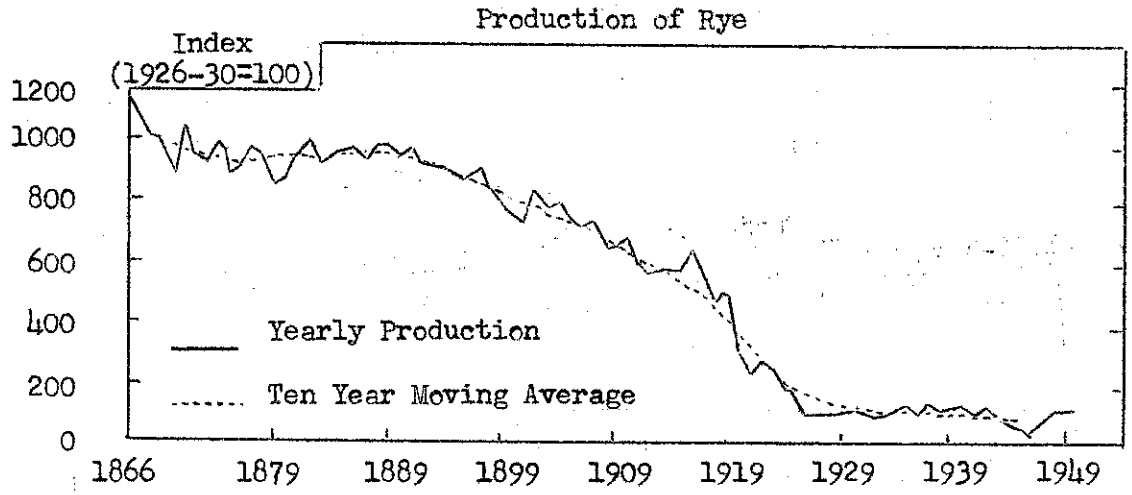
Acres of Barley

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	2,741	1,380	756	-50	-45
Chenango	419	494	161	18	-67
Otsego	1,822	688	265	-62	-61
Delaware	538	50	13	-91	-74
Herkimer	1,705	892	300	-48	-66
State	357,000	131,000		-63	

Source: U. S. Census

Barley is a relatively unimportant feed crop on New York farms. This is true in all areas of the State.

RYE IN NEW YORK STATE



Source: A.E. 783

RYE IN THIS AREA

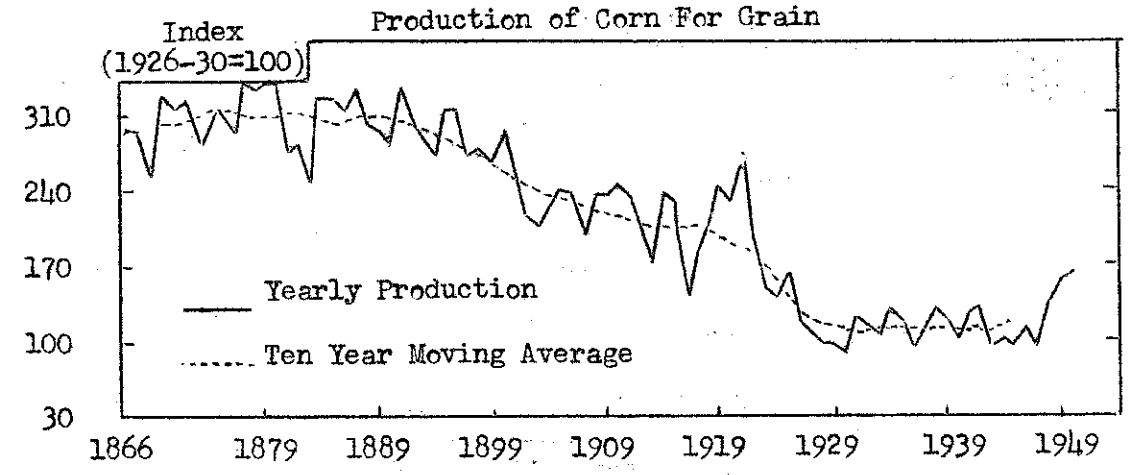
Acres of Rye

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	1,446	76	164	-95	116
Chenango	406	105	38	-74	-64
Otsego	1,293	40	90	-97	125
Delaware	2,022	32	15	-98	-53
Herkimer	83	10	46	-88	360
State	244,923	19,539		-92	

Source: U. S. Census

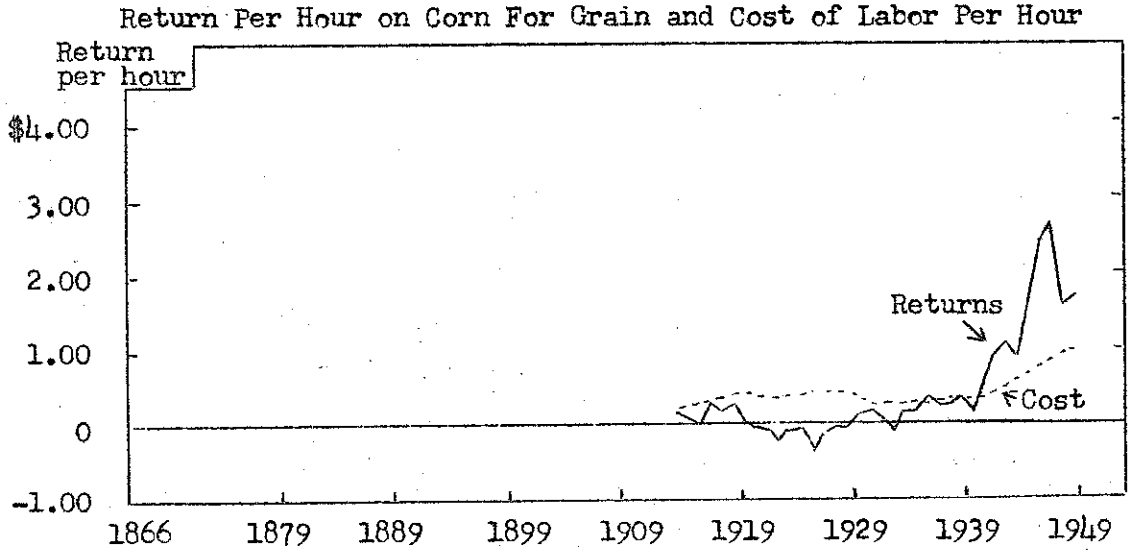
Rye has declined from a fairly important position as a crop in the State to a rather low level. No large areas of the State find rye a profitable crop.

CORN FOR GRAIN IN NEW YORK STATE



Source: A.E. 783

Corn for grain production during the years from 1879 to 1929 decreased gradually and steadily and from 1929 to 1947 it was fairly constant. The production from year to year varies with the amount of corn which is required for silage. In looking at the general trend, one should not miss the upward movement at the end of the line.



Source: Farm Cost Account Reports

The return per hour of labor on corn for the years for which the figures are available, explains at least in part why the acreage of corn decreased until 1929 and was fairly stable from then until the war years. Recently, corn for grain has shown returns per hour of labor considerably above labor costs. Reasons for this are the corn picker which has come into common use on New York farms only since the end of the war and the developments of hybrid seeds which are adapted to New York State. The latter is of very recent origin.

CORN FOR GRAIN IN THIS AREA

Acres of Corn For Grain

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	19,622	3,396	3,980	-83	17
Chenango	9,727	1,532	1,244	-84	-19
Otsego	11,785	2,588	1,252	-78	-52
Delaware	6,175	570	145	-91	-75
Herkimer	6,331	1,329	736	-79	-45
State	779,000	140,000		-82	

Source: U. S. Census

As with most other crops, not all areas of the State have participated equally in the changes in acreage. Those areas which are adapted to the production of corn have shown considerable increases in the last few years.

Yield Per Acre of Corn For Grain

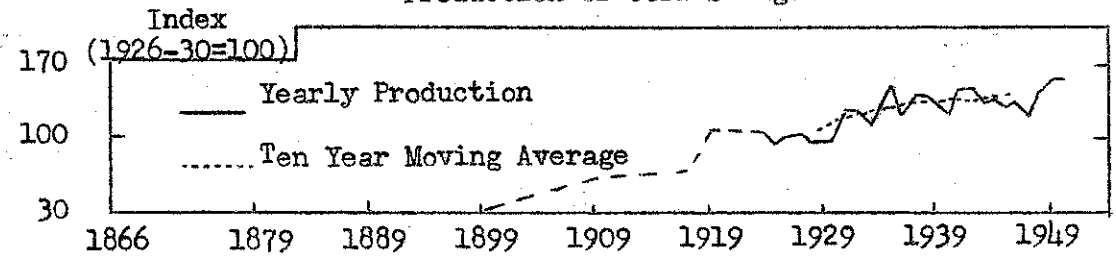
Counties	Bushels per acre			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	32	38	67	19	76
Chenango	33	40	54	21	35
Otsego	32	39	50	22	28
Delaware	31	36	41	16	14
Herkimer	35	42	49	20	17
State	33	37		12	

Source: U. S. Census

The yield of corn for grain changed little between 1879 and 1939. For areas adapted to corn for grain the yield increased significantly by 1949. Information from other sources indicate that much of this increase has occurred in the last 1 or 2 years.

CORN SILAGE IN NEW YORK STATE

Production of Corn Silage



Source: A.E. 783

CORN SILAGE IN THIS AREA

Acres of Corn Silage

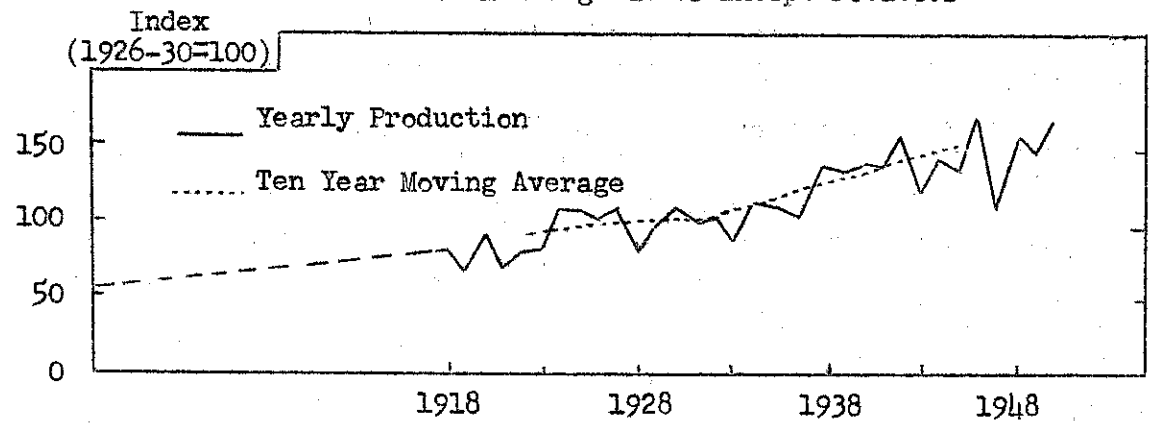
Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	NA	22,859	21,412	-	-6
Chenango	NA	12,149	11,063	-	-9
Otsego	NA	13,741	13,424	-	-2
Delaware	NA	8,426	7,137	-	-19
Herkimer	NA	12,372	10,498	-	-15
State	NA	455,000		-	

Source: U. S. Census

Corn silage is one of the most important sources of roughage on New York farms. It is more important, however, in those areas which are adapted to corn production. Some areas, where corn silage yields are low, can probably produce silage more cheaply from grass than from corn.

VEGETABLES EXCEPT POTATOES IN NEW YORK STATE

Production of All Vegetables Except Potatoes



Source: A.E. 783

VEGETABLES EXCEPT POTATOES IN THIS AREA

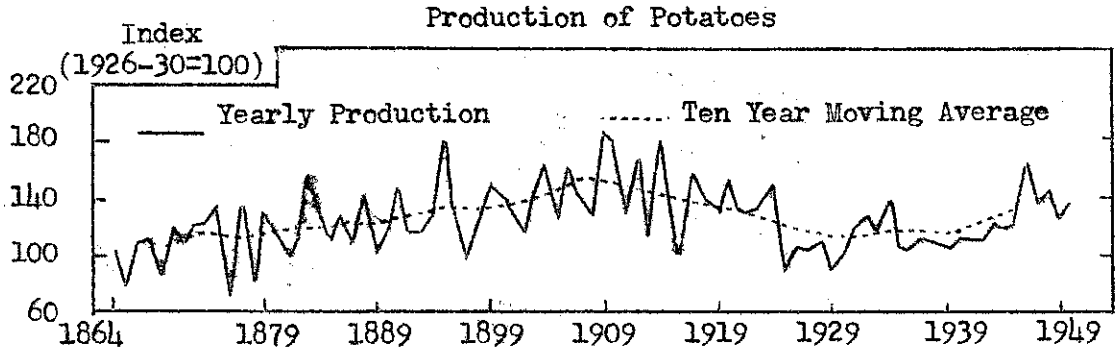
Acres of Other Vegetables

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	NA	7,663	9,775	-	28
Chenango	NA	2,736	2,527	-	-8
Otsego	NA	695	1,154	-	66
Delaware	NA	941	815	-	-13
Herkimer	NA	584	2,875	-	392
State	NA	194,766		-	

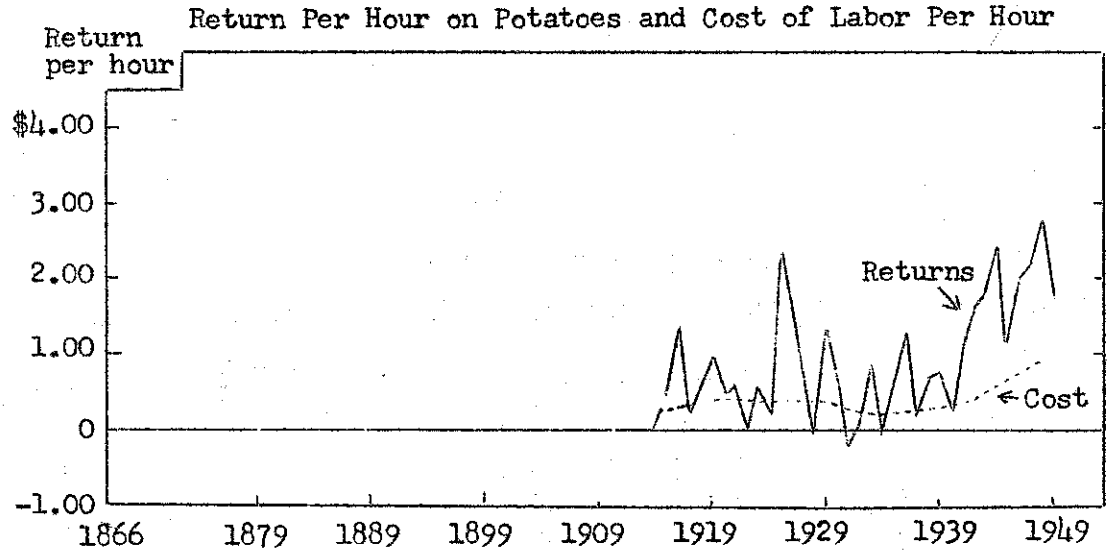
Source: U. S. Census

In some parts of New York State vegetables are a competitor with feed crops for the use of land. This is true only in those areas which are adapted to the production of vegetables.

POTATOES IN NEW YORK STATE



Source: A.E. 783



Source: Farm Cost Account Reports

Potatoes are also a competitor for land. Their production in New York increased until 1909. From then until the depression there was a trend downward. With the high prices of the World War II and post-World War years, profits on potatoes have been good, returns have been well above labor costs, and the production of potatoes has been on the increase.

POTATOES IN THIS AREA

Acres of Potatoes

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	11,847	4,036	1,936	-66	-52
Chenango	4,047	1,735	620	-57	-64
Otsego	7,234	2,582	899	-64	-65
Delaware	4,510	1,568	325	-65	-79
Herkimer	4,353	1,532	397	-65	-74
State	341,000	189,000		-45	

Source: U. S. Census

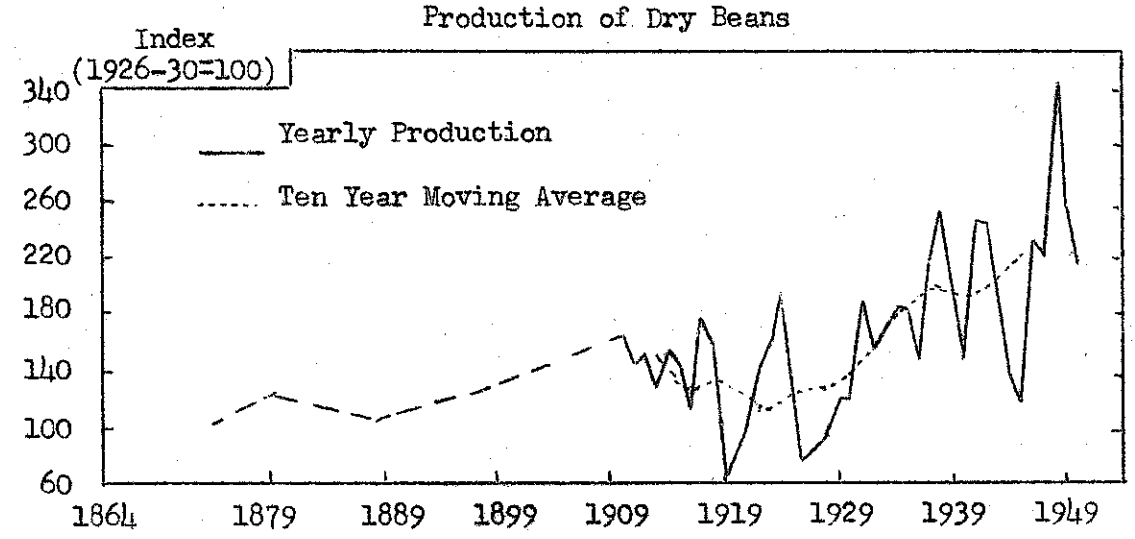
Yield Per Acre of Potatoes

Counties	Bushels per acre			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	104	117	281	12	140
Chenango	101	93	191	-8	105
Otsego	84	102	201	21	97
Delaware	82	90	98	10	9
Herkimer	106	102	186	-4	82
State	99	132		33	

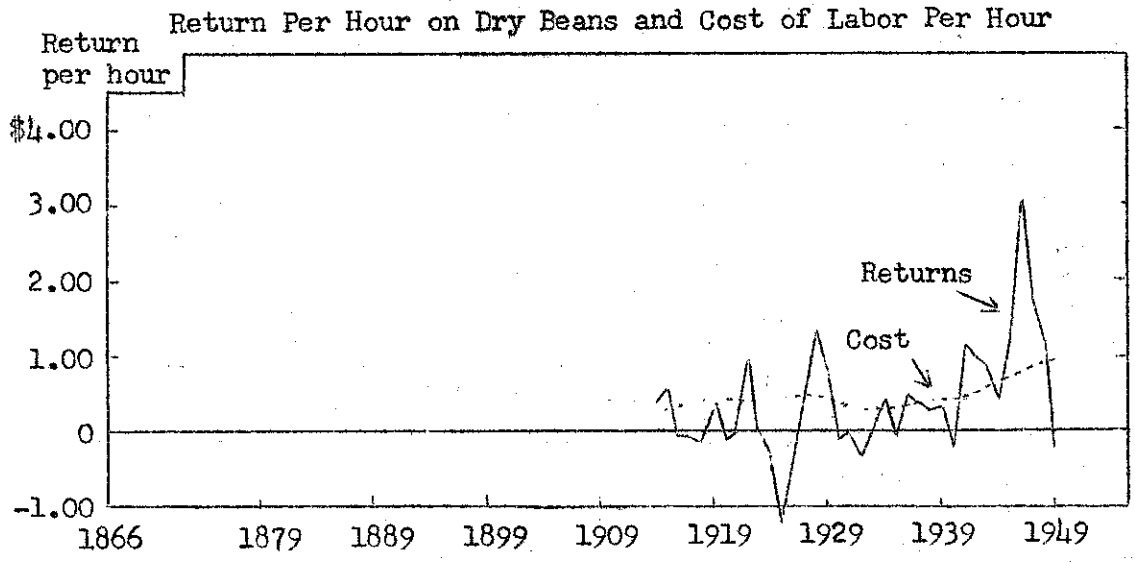
Source: U. S. Census

Potatoes are produced in those areas where the soil and climate are suited. In such areas the acreage has increased particularly in recent years. In other areas the trend has been downward. One of the most striking things connected with potato production has been the changes in yields.

DRY BEANS IN NEW YORK STATE



Source: A.E. 783



Source: Farm Cost Account Reports

Dry bean production and profits are extremely erratic. Generally, the low level of production until the early 1930's was associated with low returns per hour of labor. The increased profits in more recent years have been accompanied by an increase in acreage.

DRY BEANS IN THIS AREA

Acres of Dry Beans

Counties	Acres			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	NA	462	120	-	-74
Chenango	NA	89	91	-	2
Otsego	NA	31	39	-	26
Delaware	NA	4	1	-	-75
Herkimer	NA	2	5	-	150
State	NA	135,000		-	

Source: U. S. Census

Yield Per Acre of Dry Beans

Counties	Bushels per acre			Percentage change	
	1879	1939	1949	1879-1939	1939-49
Oneida	NA	4	17	-	325
Chenango	NA	10	15	-	50
Otsego	NA	16	9	-	-44
Delaware	NA	11	6	-	-45
Herkimer	NA	10	6	-	-40
State	NA	16		-	

Source: U. S. Census

In some sections of the State dry beans is an important crop and competes effectively with other enterprises for the use of land.

ECONOMIC CONSIDERATIONS WHICH INFLUENCE CROPS GROWN

Labor Requirements and Returns, Selected Enterprises
New York Cost Accounts, 1945-1949 Average

Enterprise	Return per hour of labor	Hours of labor per acre	Labor returns per acre	Labor returns per 100 acres	Acres required to return $3000 labor income
	$	Hours	$	$	Acres
Canning peas	2.27	17.4	39.50	3,950	76.0
Dry beans	1.40	25.2	35.30	3,530	90.0
Tomatoes	1.60	112.0	179.20	17,920	16.7
Cabbage	1.10	84.0	92.40	9,240	32.5
Oats	.45	9.8	4.40	440	682.0
Corn grain	1.95	13.8	26.90	2,690	112.0
Wheat	3.40	10.0	34.00	3,400	88.2
Hay	1.20	7.9	8.90	890	337.0
Cows (2 acres/cow)	1.50	58.0	87.00	8,700	34.5
Hens	1.54	1.5[1]	2.31[2]	231[3]	1300.0[4]

[1] Labor per hen.
[2] Labor return per hen.
[3] Labor return per 100 hens.
[4] Hens required to equal $3000 labor income.

The returns that a farmer receives for his time has a considerable effect in determining the enterprises he will have on his farm and the relative size of these enterprises. They are not, however, the only things he must consider. Although the returns from wheat and corn for grain in recent years have been higher than for most crops, so little labor is required per acre and the work on them is so seasonal that they are not satisfactory as the principal enterprises on most farms. Although the returns per hour are high, the number of hours of labor per acre are so few that the labor returns per acre are relatively small. Most farmers would not have enough crop land to make a living from these extensive crops and still have the rotations necessary to maintain his soil fertility.

Tons of Total Digestible Nutrients Produced Per Acre, 1945-1949 Average

Crop	Cost Account	New York State
Oats	0.4	0.4
Wheat	0.8	0.7
Corn for grain	0.9	0.9
Corn for silage	1.7	1.7
Hay, all tame	1.0	1.0

A farmer with a limited acreage of land should consider the amount of feed that he can produce on an acre of land when he is making his plans. Oats are a poor producing source of total digestible nutrients. Wheat, corn for grain, and hay produce moderate amounts. Corn silage produces almost twice as much animal food as any of the major feed crops.

Cost of Producing Digestible Nutrients on Cost Account Farms* - 1949

	Oats	Wheat	Corn for grain	Corn silage	Other hay
Yield per acre	27 bu.	32 bu.	45 bu.	10.1 T	1.7 T
% TDN (Morrison)	71.5	83.6	83.7	18.7	50.0
Yield TDN	.3 T	.8 T	1.1 T	1.9 T	.8 T
Cost to:					
Grow an acre	$30.23	$31.47	$37.35	$49.98	$16.69
" a unit	1.12	.99	.82	4.97	9.88
Harvest an acre	7.43	13.03	13.94	28.24	15.49
" a unit	.28	.41	.31	2.81	9.17
Store an acre	2.00	3.03	2.15	7.51	4.89
" a unit	.07	.10	.05	.74	2.89
Total cost per acre	39.66	47.53	53.44	85.73	37.07
" " " unit	1.47	1.50	~~2.65~~ 1.18	8.52	21.94
Cost per ton TDN	128.50	59.81	48.64	45.56	43.88
Cost per cwt TDN	6.42	2.99	2.43	2.28	2.19

In 1949 the grain crops were the highest cost sources of digestible nutrients of any of the principal feed crops in New York State. Hay was the cheapest source and was followed closely by silage.

Cost of Producing Digestible Nutrients on Cost Account Farms*
1914-1938 compared with 1939 and 1949

	Unit	Cost per unit			Cost per 100# total digestible nutrients		
		25 year average	1939	1949	25 year average	1939	1949
Oats	bushel	$ .83	$ .53	$ 1.47	$3.63	$2.32	$6.42
Wheat	bushel	1.37	.67	1.50	2.73	1.34	2.99
Corn for grain	bushel	1.61	.89	1.18	3.44	1.92	2.43
Corn silage	ton	6.72	4.33	8.52	1.80	1.16	2.28
Other hay	ton	12.79	12.70	21.94	1.28	1.26	2.19

The same relationship of costs of producing total digestible nutrients has generally existed. The grain crops have been high cost sources of nutrients and the lower cost sources have been hay and corn silage.

* The per cent digestible nutrients are taken from "Feeds and Feeding" by F. B. Morrison. (Twentieth edition, 1938)