

A SEARCH FOR ECONOMIC ALTERNATIVES: HOPS IN FRANKLIN COUNTY, NEW YORK DURING THE NINETEENTH CENTURY

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ABSTRACT: *Nineteenth century northern New York residents searched for a number of economically viable activities to make their way in the world. Those in Franklin County, along the New York-Quebec border, chose hops. Speculative and wholly commercial hops cultivation became a mainstay of the Franklin County economy. The character and change of this agrarian industry is traced and analyzed, with a focus on why such a farming activity is focused in one county and did not occur in surrounding counties. Finally, the demise of this industry is examined.*

The dawn of the nineteenth century in the United States ushered in an era not only of "Good Feeling", but also of fundamental change in almost all aspects of settlement and regional economic character. As the country expanded and developed in its population, territory, and social processes, its regional economic functions and forms underwent a complex set of changes and adjustments. One sector of the nation's economy which experienced a particularly large number of these changes was its agriculture.

In the northern portions of the United States, some of these changes included local and regional tendencies towards increasing commercialization, farmland clearance and consolidation, a slow and uneven decline in subsistence-oriented "mixed" farming, and a rise in both the on-the-farm and regional specialization for an ever-growing national and international market system (Danhoff, 1966: 1-26, 130-217). While much of this last factor was most closely related to large-scale concentration on what could be called "main-line" cultivation of small grains and maize, and the raising of cattle, swine, and sheep for meat and other products, there also developed a growing number of specialty crops that were produced for profit and were commonly speculative in their sales characteristics (Hedrick, 1933: 156-158). There

was also a good deal of experimentation with various specialty crops, making for numerous discoveries, booms, and busts in many areas which tried such agricultural experimentation. One such crop was hops (Summerhill, 1995: 125-152).

Hops have had, and continue to have, one primary use: to flavor and help preserve ales and beers. Originally cultivated in central Europe, and later introduced to Britain by the end of the fifteenth century, hops were carried to New Amsterdam by the Dutch, where beer was locally brewed as early as 1624, and to Massachusetts where English colonists were brewing ales by 1637 (Vogel et al., 1946). Hop buds, and their natural oils, provide a unique bitter flavor to malted beverages, clarify the "wort", or the fermenting fluid carrying the alcohol-producing malt, and helped to preserve the finished product before the invention of refrigeration. Hops, however, have no other commercial uses. For example, they cannot be used for animal fodder and no other form of direct human consumption of these buds and vines has ever been discovered. Additionally, hops cultivation was both capital- and labor-intensive. Capital-intensive because of a

New York State Counties



Figure 1

Table 1. Hops Production By State, 1840-1910 (in Pounds of Hops Produced)

1840		1850	
1. N.Y.	- 447,250	1. N.Y.	- 2,526,299
2. Mass.	- 254,795	2. Vt.	- 288,023
3. N.H.	- 243,425	3. N.H.	- 257,174
4. Ohio	- 62,195	4. Mass.	- 121,590
5. Pa.	- 49,135	5. Ind.	- 92,796
6. Vt.	- 48,137	6. Ohio	- 63,731
7. Ind.	- 38,591	7. Me.	- 40,120
8. Me.	- 36,940	8. Pa.	- 22,088
9. Ill.	- 17,742	9. Wis.	- 15,930
10. Mich.	- 11,381	10. Va.	- 11,506
1860		1870	
1. N.Y.	- 9,677,931	1. N.Y.	- 17,558,681
2. Vt.	- 638,677	2. Wis.	- 4,630,155
3. Wis.	- 135,587	3. Mich.	- 828,269
4. N.H.	- 130,428	4. Cal.	- 625,064
5. Mass.	- 111,301	5. Vt.	- 527,927
6. Me.	- 102,987	6. Me.	- 296,850
7. Mich.	- 60,602	7. Minn.	- 222,065
8. Pa.	- 43,191	8. Iowa	- 171,113
9. Ind.	- 27,884	9. Ill.	- 104,032
10. Ohio	- 27,533	10. Ohio	- 101,236
1880		1890	
1. N.Y.	- 21,628,931	1. N.Y.	- 20,068,019
2. Wis.	- 1,966,827	2. Wash.	- 8,313,280
3. Cal.	- 1,444,077	3. Cal.	- 6,547,338
4. Wash.	- 703,277	4. Oreg.	- 3,613,726
5. Mich.	- 266,010	5. Wis.	- 428,547
6. Oreg.	- 244,371	6. Mich.	- 64,815
7. Vt.	- 109,350	7. Vt.	- 51,705
8. Me.	- 48,214	8. Me.	- 24,873
9. Pa.	- 36,995	9. Ill.	- 22,300
10. N.H.	- 23,965	10. Colo.	- 18,300
1900		1910	
1. N.Y.	- 17,332,340	1. Oreg.	- 16,582,562
2. Oreg.	- 14,675,577	2. Cal.	- 10,124,660
3. Cal.	- 10,124,660	3. N.Y.	- 8,677,138
4. Wash.	- 6,813,830	4. Wash.	- 3,432,504
5. Wis.	- 165,346	5. Wis.	- 13,290
6. Idaho	- 58,870	6. Va.	- 4,039
7. Pa.	- 13,710	7. Kty.	- 4,005
8. Mass.	- 7,480	8. Iowa	- 2,625
9. Vt.	- 4,400	9. Ohio	- 2,428
10. Mich.	- 3,560	10. Pa.	- 2,205

Hops in Franklin County, New York

necessary outlay of money and materials for poles and frames for the hop vines to grow upon and for land, hops also required large amounts of fertilizer, insecticide, and extensive on-the-farm processing facilities. These last included drying houses, baling machines, and storage areas. Hops-growing was also labor-intensive in that much of the planting, pruning, cultivating, application of fertilizer and chemicals, and weeding had to be done by hand. Plus harvesting required large work crews before mechanical harvesters were invented in the mid-twentieth century (Tomlan, 1992: 43-82).

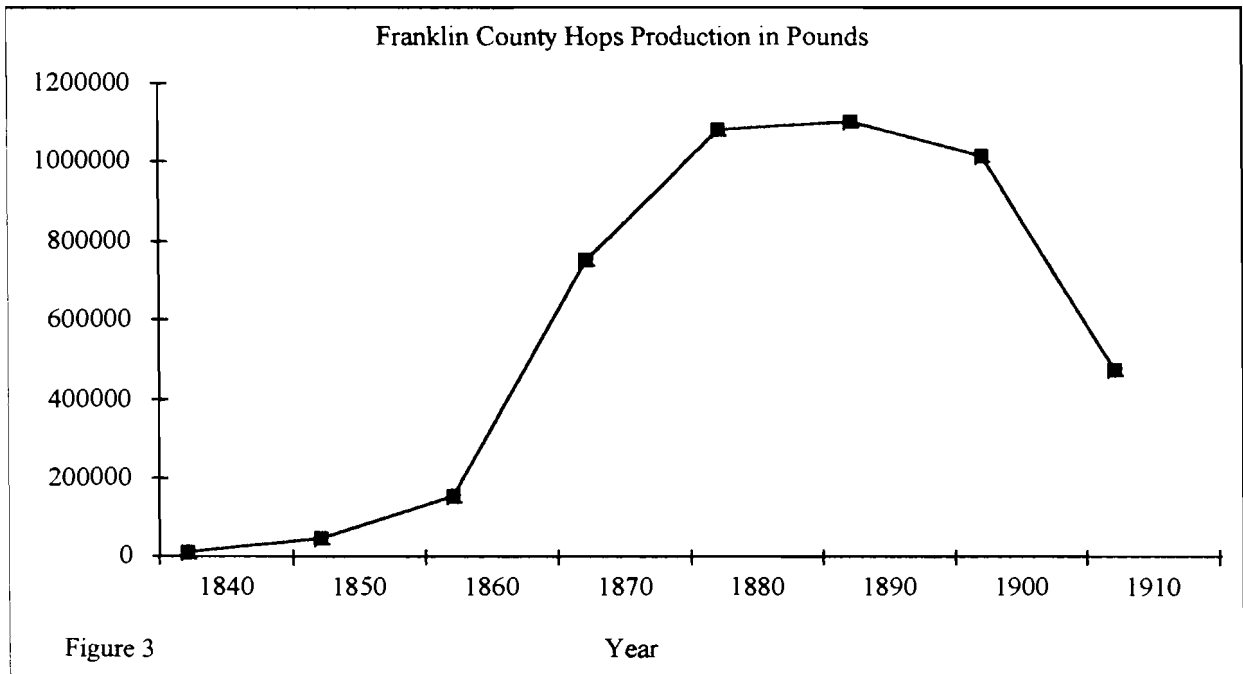
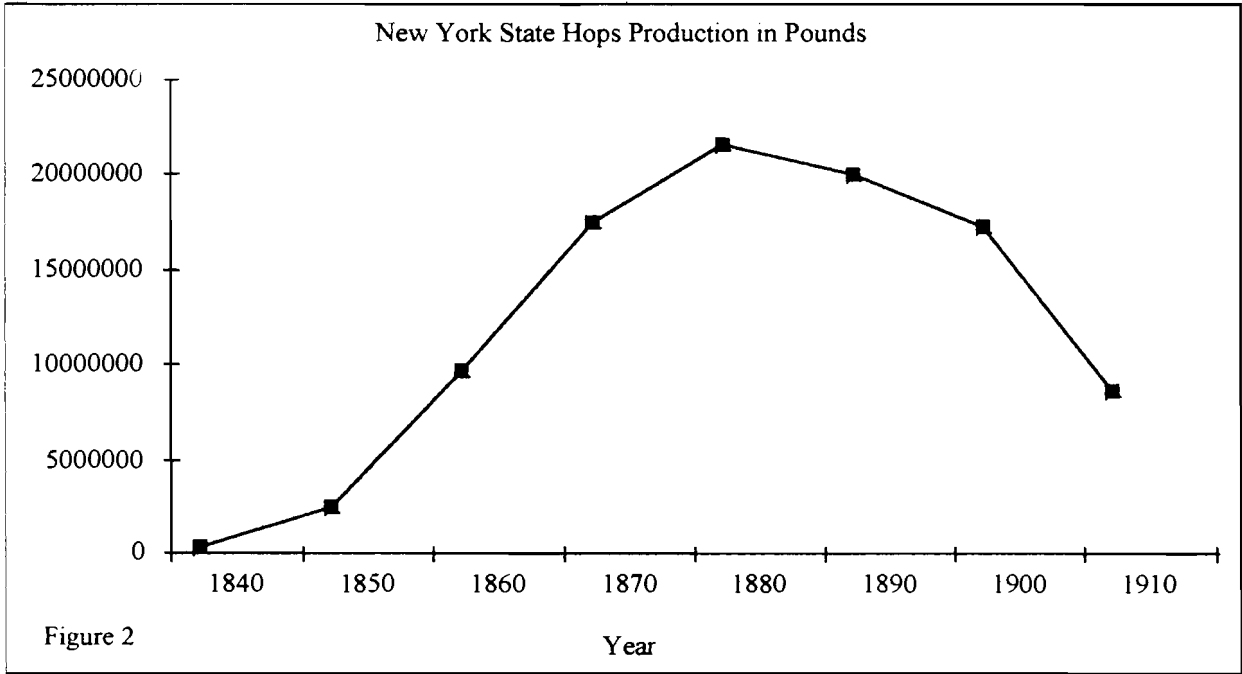
Additionally, hops tend to be particularly sensitive to environmental stimuli and stresses. Late spring or early autumn frosts are very destructive for hops. Hot temperatures and prolonged humidity stunt the growth of the vines early in their growing cycles, encourage fungal infections, and make the hop buds too bitter and unpleasant tasting for use in brewing. Ideally, in North America the areas best suited for hops cultivation lie north of the latitude of the Ohio River Valley, south of the Laurentian Shield, and in those areas receiving between 35 to 55 inches of rainfall annually (Tomlan, 1992; Rumney, 1983).

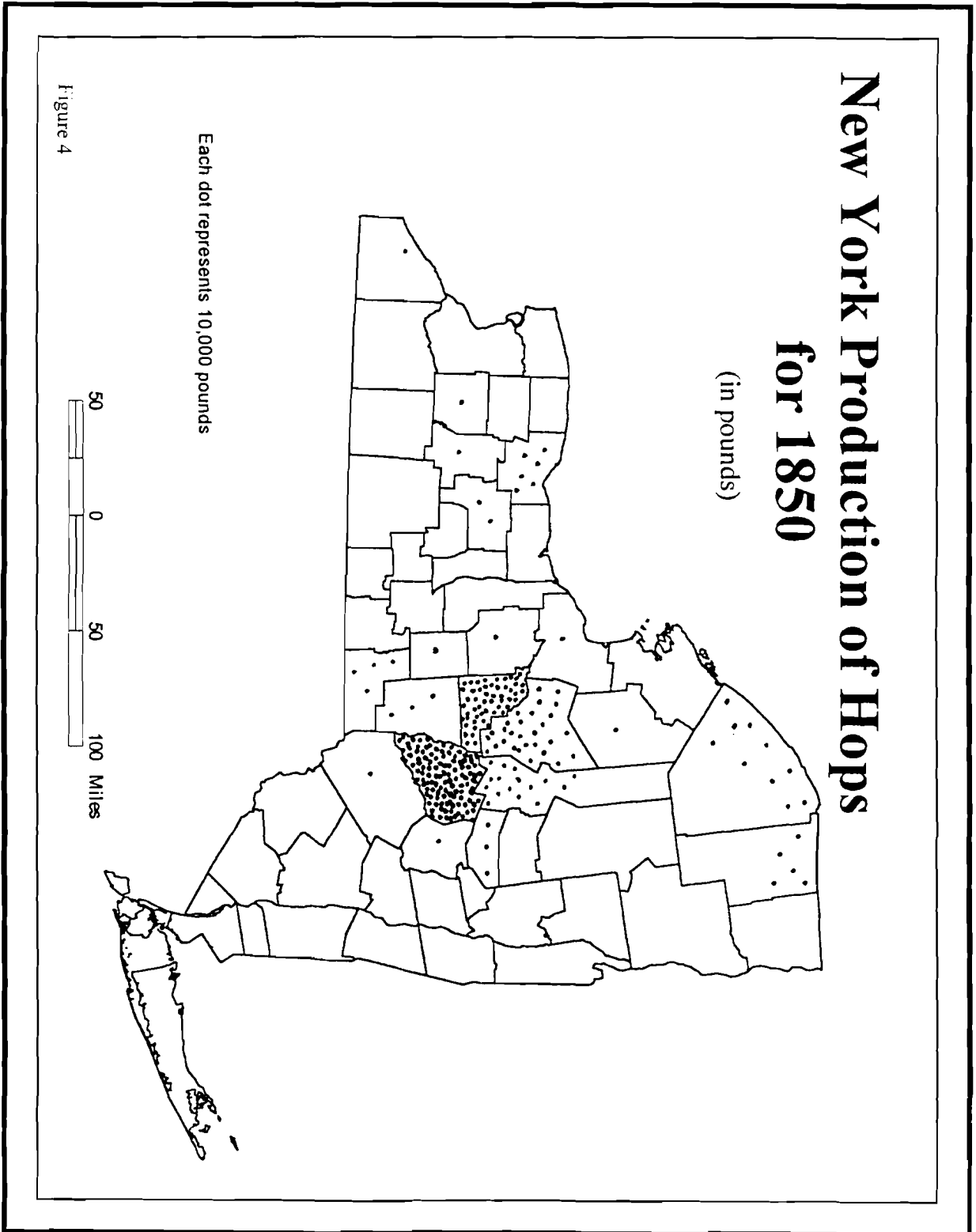
Beers and ales were common drinks in colonial and nineteenth-century America, but were most commonly preferred and made in the northern states and nearby southern Canada. Whiskeys had by the early 1700's become the drink of choice south and west of the Chesapeake Bay, and these regions (Hedrick, 1933; Baker, 1905). Initially, ales and beers were brewed at home in small batches by the women of such households. Only slowly near the end of the 1700s and into the early 1800s did commercial breweries become evident, productive, and profitable. Most of these early breweries, too, were located in the larger urban markets in the northeast in order to have access to sufficient clientele, and to be able to provide their products to these markets before they spoiled. Hops could not by themselves prevent spoilage, and icing or refrigeration was largely a process of the future (Arnold, 1933).

By the turn of the nineteenth century, specific areas producing the requisite components of malted beverages, including hops, were evolving in the United States. The first such area concentrating on hops cultivation was in eastern New England, in northeastern Massachusetts and nearby southern New Hampshire. In this still "English" New World landscape with a long-established taste for malted beverages and with a growing urban market for such drink, another locational force for the concentration of hops farming was functioning. That was the search for commercially viable crops by the farmers of this region. Hops fit the description for several decades in New England, until another hops-growing area developed by the 1840s in upstate New York. By that time, too, the soils of the hops groves of eastern New England had been depleted and these groves had become troubled by insect pests and plant diseases, and by rising labor costs (Tomlan, 1992: 11-16, 45-81).

New York's involvement with hops began in 1808, when hops were first grown at a commercial scale in Madison County, in the central portion of the state near the Mohawk River (Figure 1). By the 1840 Federal Census, New York hops growers were producing the largest crop of hops in the country and continued to lead the nation in hops production until well into the early twentieth century (see Table 1).

For most of the period (circa 1840 to 1900) of New York's dominance in national hops cultivation, several counties in central New York, including Otsego, Madison, Schoharie, and Oneida, were usually unchallenged leaders in production, development, innovation, marketing, and distribution of hops (Figures 4, 5, 6). There was, however, one exception: Franklin County, located on the northern fringe of New York State and bordered by Quebec, and by Clinton, Essex, Hamilton, and St. Lawrence counties. Franklin County farmers made this area into an anomaly among hops production areas in New York during the nineteenth century. None of the surrounding counties ever grew hops at a commercial level, although they could do so,





New York Production of Hops for 1880

(in pounds)

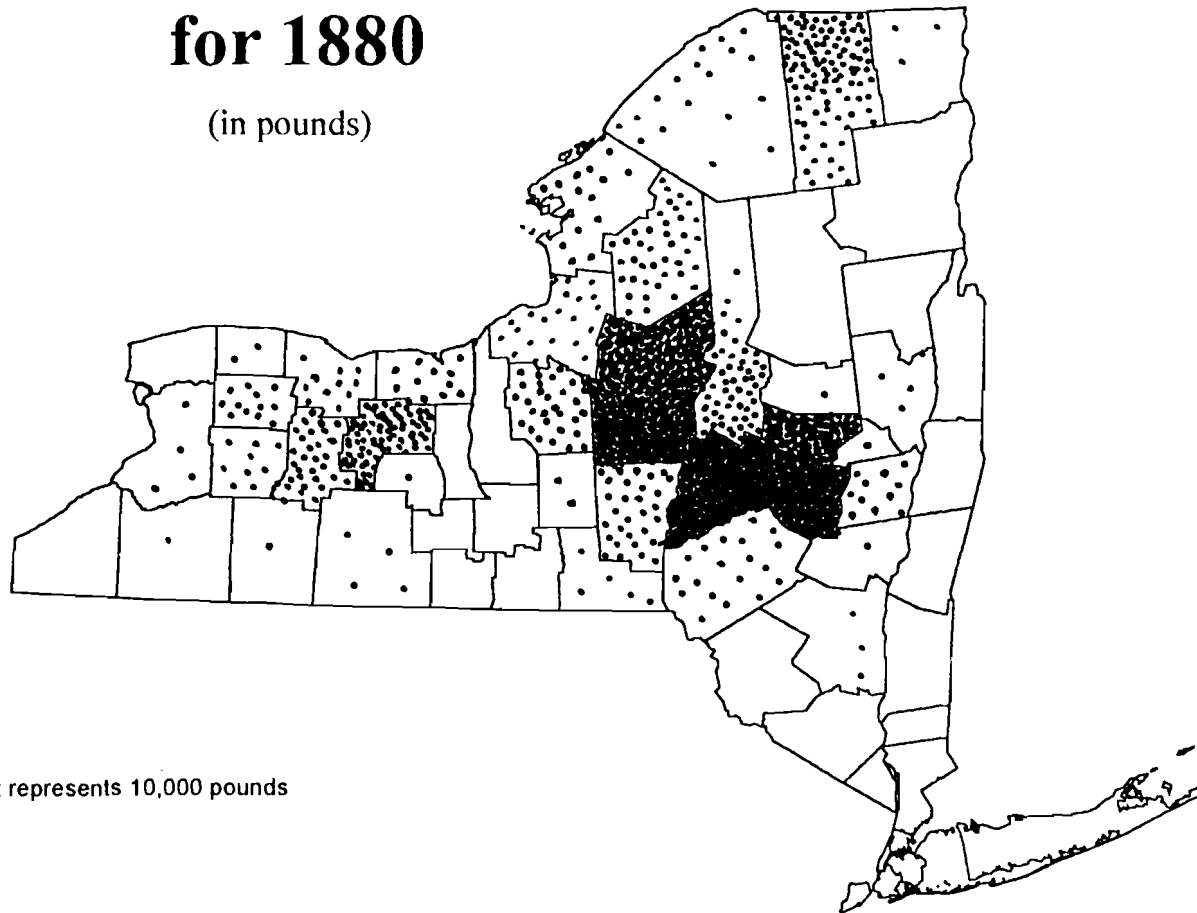
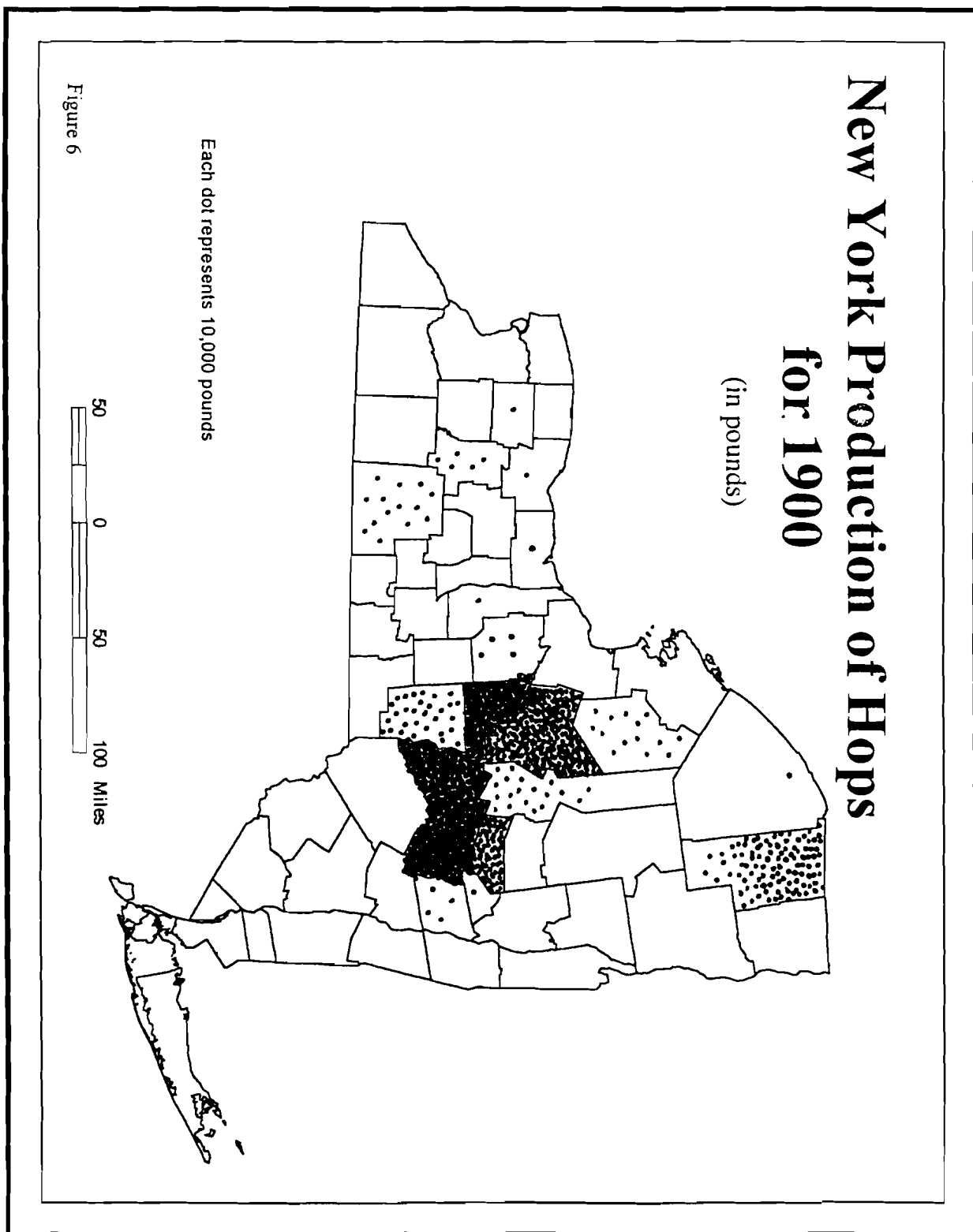


Figure 5



and even Quebec lagged behind other areas of Canada in growing hops. In the Northern Tier of New York counties, hops became a nearly unique specialty of just one area, Franklin County.

Franklin County, in some ways, can be viewed as a land having two basic environmental characters. For example, the southern half of the county is located within the Adirondack Uplands of New York. With its thin and rock soils, short and cool growing seasons, and long winters this Adirondack portion of the study area was, and still is, a most marginal landscape for any form of agriculture. Yet, the northern half of Franklin County is a portion of the St. Lawrence-Champlain Lowlands, and is a very productive area for growing temperate latitude types of crops (Thompson, 1977: 19-53, 201-231). Likewise, Franklin County was located between differing local space economies. To the east, Clinton and Essex counties were important centers for iron mining and manufacturing, as well as lumbering and wood industries. St. Lawrence County to the west had a mixed industrial and agricultural economic base, and Hamilton County to the south was nearly uninhabited. Yet, Franklin County had none of the iron that made northeastern New York noted as a manufacturing area and only had a part of the diversified economic base of St. Lawrence County. Franklin County farmers also needed an alternative to the dairy, animal, and crop products of their neighbors as they were located at further distance from those industrial local markets and were shut off by the intervening opportunities afforded those neighboring areas and producers. They needed a specialty crop that their neighbors did not produce; hence, the need for and development of a commercial crop like hops. This alternative could be sold in markets near and far, could absorb the costs of such transportation, and could make a profit in most years (Seaver, 1918).

Hops cultivation at a commercial scale in Franklin County date from 1825 (Figure 3). The uncertainties and depredations of the War of 1812, which had actually forced a part of the area's population to flee as refugees, were over by the 1820s and a long-term peace had been

established. Newcomers were coming from New England, particularly from Vermont, Massachusetts, and New Hampshire (Darlington, 1993). It was these last two origin areas particularly that are important here, as many of these migrants were coming from the first major hops growing area in the United States. The first commercial crop of hops amounting to 1200 pounds was cultivated by Alexander Walker, a New Hampshire native, near Malone (the county seat). Walker carted these hops overland to Montreal, Quebec and sold them to Montreal brewers for 50 cents a pound. A pattern of trade and an accessible market for Franklin County hops had been established (Seaver, 1918; Hyde, 1974: 125-133).

Hops production in Franklin County grew and spread across the better farmlands in the northern half of the county, although like all hops-producing efforts, this was subject to periodic fluctuations in amount, profits, and trade due to the peculiar nature of the hop plant's susceptibility to growing conditions and to the speculative nature of the hops market. For example, the 1864 hops crop in Franklin County was almost destroyed by mould and vermin. Prices for hops fluctuated from 5 cents a pound in flooded markets to over \$1.20 a pound. The Canadian market for Franklin growers, however, continued until well after the Civil War, as breweries in southern Quebec grew in size and capacity, as local American and Canadian markets for brewed drink grew. Quebec growers could not meet the demand for hops by Quebec brewers, additionally, because these brewers continued to specialize in "English-style" ales, porters, and stouts that used as much as four and five times as many hops in their brewing as did the making of German-style "lager" beers. The consumers for such heavier brews remained in the large British population of southern Quebec, including soldiers and sailors visiting the port cities such as Montreal and Quebec City (Denison, 1955; Baron, 1962). One other major innovation stimulated and helped to continue this Canadian connection to Franklin County growers; transportation developments. By 1855, a local system of newly built railroads traveled

Hops in Franklin County, New York

east-to-west parallel to the U.S.-Canadian border through northern Franklin County (the heart of hops country). This then connected with a rail line that ran from Plattsburgh, New York in Clinton County along Lake Champlain to Montreal, 60 miles to the north (Hurd, 1880).

By the end of the Civil War and with the return of the soldiers who had been enlisted from the area, however, a fundamental change occurred in Franklin County's often lucrative hops growing activities. This change developed around a redirection of the flow of hops grown in the study area towards the breweries of New York City and the Hudson Valley area, and away from southern Quebec. Two factors were particularly important in this shift, which also happened concurrent with a massive increase in the usual size of the Franklin County crop (Hyde, 1974).

The first factor was the continued articulation and building of the railroad network servicing both the northeastern United States and the local area. While an east-to-west line had been completed by 1855, along with a railroad leading from this road (the Northern Railroad) northward from Plattsburgh to Montreal, there had been no such rail connection to the south towards Albany until the Delaware and Hudson system finished their line in 1873. While there was a canal connecting the Champlain Valley to the Albany area, this was not as useful a connector, as hops could be a delicate commodity requiring quick and protective handling. This later rail connection southward helped to deflect a growing amount of Franklin County hops to the booming breweries further south (Rumney, 1983).

The second, more direct, influence came from "downstate" brewers and hops merchants. Due to its speculative character and market volatility, hops as an important ingredient for brewing often acted as a "make-or-break" component for business. For many of these expanding New York brewers, as with the Montreal brewers, hops remained a vital part of their products. The English-style drinks mentioned above were also in demand in New York and nearby areas, and the lagers produced

and drunk more by immigrants with a central European heritage were usually the products of breweries in the Midwest and Middle Atlantic states. So, in order to more readily insure their supply of hops, merchants and brewers in downstate New York began to both buy up hop groves (hiring workers and managers in the local areas to do the cultivation) and to contract with still independent growers for direct sale of their crops of hops. The "Golden Age" of hops for far northern New York had begun (Tomlan, 1993).

It did not last long, however. Hops production in the eastern United States, and especially in New York State, began to decline precipitously by 1900 (Figure 2). Outside of New York, the states east of the Mississippi River grew 1,472,300 pounds of hops on 5,429 acres in 1880. In 1900, the same states grew only 201,089 pounds on 393 acres. New York's hops acreage of 39,072 acres in 1880 grew 21,628,931 pounds, and in 1900 27,532 acres produced only 17,332,340 pounds. At the same time, hop groves in California, Oregon, and Washington grew hops on 1,957 acres and produced 2,391,725 pounds of hops. By 1900, these three states had 27,619 acres in hops, and produced 31,613,941 pounds. These three states' proportion of the national acreage and poundage of hops went from 5.0% to 11.1% (respectively) in 1880 to 49.7% of the nation's acreage and 64.2% of the amount grown in 1900 (U.S. Censuses of Agriculture, 1880; 1900; 1910). In just another ten years in 1910, New York had slipped to third among individual states growing hops behind Oregon and California. It produced 8,677,138 pounds (or 60% less than the peak year of 1880) and planted only 12,023 acres in hops (down 69.2% from 1880)(U.S. Censuses of Agriculture, 1880; 1900; 1910).

A number of factors combined to reduce and eventually to end eastern hops cultivation. First, yields in the older eastern groves had been steadily declining for quite some time. Deteriorating soil fertility, a constant war against insect pests and plant diseases, and soil erosion on sloped lands reduced yields markedly. Higher production costs, including labor, taxes, and processing, rapidly closed any gap between

production costs and profits, too. Tastes in beers and ales in eastern areas of the United States were finally swinging away from the heavier hopped English-style drinks towards the lighter lagers which could also be stored longer with now-existing refrigerated facilities and containers. By this time, transcontinental railroads crossed the land, providing more rapid and regular services to grower, brewer, and consumer. Linked to this last point were technological advances that either preserved hops longer for direct brewing or made possible "essences", or hops oils that could be used in brewing. Plus, eastern farmers, including those in Franklin County, began to find other products and techniques such as dairy farming to be equally lucrative and less speculative, hence less risky. Labor costs rose beyond the financial capabilities of many New York growers and the often smaller scale of cultivation most common in the east inhibited economies of scale from developing enough to compete against the newer, more productive western groves. Prohibition also helped to finish off most of the remaining growers in New York, though a handful of Franklin County hops growers did hang on through Prohibition by selling (again) their crops in the Montreal area, which had no such prohibition of alcoholic beverages. Labor costs in Franklin County were, for a time, less than other areas of New York due to the Indian population of a nearby reservation, Akwasasne, but even this created only a temporary reprieve. Today, no one grows hops commercially in Franklin County (Dunbar, 1954).

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