

“Milkmaids” propping up a sick cow

at a swill dairy,
Sixteenth
Street,
Manhattan



Source: Frank Leslie's Illustrated Newspaper 6 (26 June 1858): 61

For two centuries after the Dutch settlement of New Amsterdam agriculture on Manhattan Island remained not all that dissimilar from farming elsewhere in northern North America (Hedrick, 1933). Over the years farm families engaged in both commercial and subsistence production, raising livestock, garden and field crops. They gladly sold surpluses when they existed, but always sought to provide for domestic needs first (Parkerson, 1995).

Livestock in nineteenth-century New York City

By the turn of the nineteenth century, whether in New York or any other American city, it would not have been uncommon for individual families to own a cow and two or three pigs. Cattle ranged on local commons, while the swine foraged in the streets fending for themselves and consuming household garbage. Not until the first part of the nineteenth century did com-

Producers held a comparative advantage in the unregulated urban marketplace

mercial agriculture emerge as a viable economic activity within the limits of New York City.

Two forms of (commercial and subsistence) agriculture existed in nineteenth-century New York City: livestock husbandry and horticulture. While the characteristics of subsistence production remained relatively unchanged, commercial urban agriculture underwent remarkable growth after the year 1800. Commercial agriculture depended on land and location, the availability of low-cost immigrant labour, and on the availability of urban waste prod-

ucts. By the end of the century, however, urban livestock production (both subsistence and commercial) had slipped into decline. Urban horticulture continued to thrive into the twentieth century.

FACTORS LEADING TO THE EMERGENCE OF COMMERCIAL UA

A combination of economic and social factors, powerful political forces and environmental conditions helped encourage agricultural specialization in New York City. Not surprisingly, the most important of these was population increase.

In 1800 New York City (then only Manhattan Island) with its population of 60,000 was the largest city in America, but minuscule in international terms. The three largest cities in the world exceeded this figure by a factor of ten! Liberal immigration policies welcomed settlers from northern Europe to America, and growing domestic rural-urban migration caused the city to double in size over the next two decades. By 1830 New York's population stood at 202,000. Twenty years later over half a million people

lived on Manhattan Island alone, and by 1900, with its 3.4 million people New York could boast its ranking as the second largest city in the world. Similar healthy growth occurred in the independent village of Brooklyn, located barely 500 metres away on the other side of the East River.

Nineteenth-century population growth influenced agriculture by stimulating demand and creating opportunities for a new class of farmers – horticulturists and urban livestock growers – to produce for the market. These vegetable, milk and pork producers reaped the benefits of urban proximity because they held a comparative advantage in the unregulated urban marketplace over the more distant rural producers.

Economic Growth

Changes in the economy also encouraged development of industrial activity that benefited local farmers. Merchants, bankers, shipbuilders, packet boat companies and other firms located their offices in New York City, which by 1830 had become the mercantile capital of America. Of significance to livestock growers was the coin-

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Livestock production in the nineteenth-century New York City reached extensive proportions

cident establishment of a whiskey distillation industry along Manhattan's eastern and western shores, close to sources of grain, water, fuel, capital, merchants and markets (Albion, 1939).

Whether due to declining profits or the desire for increased revenue, it seems that around 1830 the distillation industry vertically integrated, with profound results for urban agriculture (Hartley, 1842). Historian Richard Wines has described the exchange of food and waste between farms and cities in environmental terms as a "recycling system" (Wines, 1985). This recycling system existed as a critical component in the urban agriculture of New York City. For example, distillers knew that cattle and pigs could survive on the mash by-product of the liquor manufacturing process (Mathias, 1952). Seeking to achieve greater efficiencies, these firms purchased scores of animals to which they subsequently fed (waste) mash. Soon independent dairymen and hog growers, whose operations lay scattered across the city began to purchase mash directly from distillers. In addition hog growers collected household garbage from the streets, which they hauled to the pens (Linder and Zacharias, 1999). Commercial livestock production in nineteenth century New York City, therefore, depended on an ability to obtain and recycle industrial and household waste products.

Immigration

Immigration also encouraged the development of commercial urban agriculture. At any given moment, the vast majority of New York City's agriculturists had

arrived in the United States rather recently. Urban agriculture attracted new immigrant families seeking to gain a foothold in a foreign land (Ernst, 1949). For example, census officials reported in 1850 that in New York's Sixteenth Ward, tenant agriculturists comprised 89 percent of all farm units. Of self-reported dairymen, 93 percent of male heads of household were foreign-born, while 90 percent of adult women in these households also reported foreign birth. The most common place for both was Ireland (Seventh Census, 1850). Similar patterns have been observed for nineteenth-century London (Atkins, 1977). Few of these recent arrivals chose to settle in the vast countryside surrounding New York City. In New York City immigrant men milked cows, but in the countryside this was considered solely women's work up to the middle of the century. One reason for this difference is undoubtedly the conditions of the urban dairies.

Livestock production in nineteenth-century New York City reached extensive proportions. Various reports indicate that thousands of pigs were raised within the city limits (Hartog, 1985). During the cholera epidemic of 1849, for example, New York police officers drove an estimated 20,000 hogs from the built-up portion of the city (Rosenzweig and Blackmar, 1992). Subsistence producers and local butchers owned many of these free ranging animals, but commercial producers also held sizable herds.

Around this same time one observer estimated that enough cattle lived in New York City to produce nearly 13,000 gallons (49,000 litres) of milk per day (Hartley, 1842).

CHARACTERISTICS OF URBAN LIVESTOCK PRODUCTION

Commercial producers raised livestock in outdoor pens and in sheds where they were confined because of the lack of pasture. Distillers also developed ingenious methods to feed hundreds of animals efficiently, for example by piping mash into sheds using gravity-flow systems. Independent dairymen, on the other hand, purchased mash at 10 cents per barrel and carted it, still warm back to their barns (Hartley, 1842). Other estimates indicate that the average Manhattan dairyman owned seventeen head of cattle at mid-century, but this number exhibited considerable variance. For example, James McClusky, a "milkman" in the Sixteenth Ward owned 100 head of cattle, while a Manhattan distillery reported 350 head on site (Seventh Census, 1850). Livestock pens and barns normally occupied the worst areas of the city: industrial areas occupied by factories, cattle yards and tenement houses, and in the less densely populated fringe regions on the edge of town. These places were home to nuisances such as bone boiling and bleach factories (Rosenzweig and Blackmar, 1992). For example, a report issued by New York City's twenty-first sanitary district in 1865 noted that a milk dairy and hog yard shared the immediate neighbourhood with bone boiling plants, distilleries, breweries, rendering plants, manure lots, plus numerous stables, liquor stores, tenement houses and a primary school (Citizen's Association of New York, 1865).

MARKETING MILK

Distilleries initially hired cart men to peddle milk, while independent producers sold it themselves, often to discount grocery stores (Seventh Census, 1850). Yet beginning in the 1840s, city milkmen faced competition from suburban farms located an hour or more by wagon from the city (New York State Agricultural Society, 1844). Suburban producers represented a threat to the city dairies because they offered a better product.

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Pastured outdoors on grass, supplemented with vegetables and sometimes corn, suburban cattle produced higher quality milk. For example, Gouverneur Morris, a wealthy farmer living fifteen miles (25km) north of New York City began selling milk in the late 1820s. Over the years he earned a reputation for selling quality dairy products. This helped him establish regular customers along fixed delivery routes. Although suburban milk soured when carried long distances on warm days, urban consumers soon learned about cream, a substance not usually found in city milk, and that the substance was white, and not blue! Shipments of country milk by rail in the 1850s squeezed urban produces even further, and middle and upper class families who could afford to do so, purchased pure country milk (American Institute of the City of New York, 1846, 1847).



RUAF

The main aim of the Resource centre on Urban Agriculture and Forestry (RUAF) is to facilitate integration of Urban Agriculture in the policies and plans of city authorities and to facilitate the formulation of projects on urban agriculture with active involvement of all local stakeholders.

The RUAF-Programme is administered by IDRC, and implemented by ETC-International, The Netherlands. ETC co-ordinates the activities of TUAN, City Farmer Network and other participants. Regional Focal Points on Urban Agriculture in RUAF are: UMP-LAC in Ecuador, IAGU in Senegal, MDP - East and Southern Africa, Zimbabwe and IBSRAM, Thailand.

RUAF further maintains close working relations with other networks and relevant international programmes. The duration of the RUAF project is five years, and started in October 1999. The Urban Livestock Group, of ETC collaborated with RUAF and the editors in the development of this issue. This group will further assist in developing a resource base; building up a network; organise seminars/workshops/training; contribute with articles; peer review documents and proposals, and further develop research and extension proposals on urban livestock.

Further information: ETC-RUAF

THE DARK SIDE OF URBAN DAIRYING

Yet the urban producers were not to be outdone, and focused instead on producing a low-cost product which catered to a less affluent clientele who shopped at cheap grocery stores. One observer of the business in the early 1850s claimed that in order to do this many of these retailers sought to mislead their customers as to the true origins of their milk. On the production side, producers kept costs down by raising livestock in filthy, unsanitary conditions (Hartley, 1842). Local residents complained of the stench from seldom-cleaned pens and of animals being herded in the streets, but more serious problems existed. Confined in windowless quarters and fed unbalanced (often liquid) diets, cattle seldom survived longer than a year. Besides pneumonia, epidemic diseases periodically swept through the barns. Cattle also suffered from hair and tooth fallout, and sometimes even the loss of their tails, as well as from severe vitamin deficiencies. Recognising this, dairymen milked their animals, even ones taken ill, for as long as possible, taking care to send them off to the butcher just before death. Nevertheless, reports circulated that unscrupulous butchers accepted dead animals from dairymen (Mullaly, 1853). A task force charged to investigate the “swill milk dairies” after epidemic cattle disease rocked the city reported in 1848 that: “We understand that the cows died suddenly, sometimes even while being milked; that in one instance a cow died and fell over on the man milking her.” (American Institute of the City of New York, 1848). It was also alleged that urban dairymen secretly added flour, chalk, egg whites, plaster and other whitening substances to hide the unwholesomeness of their milk (Gates, 1960). Similarly awful conditions existed in large scale piggeries located along the edge of the city (*Daily Guardian*, 1857).

REGULATION OF URBAN LIVESTOCK PRODUCTION

Although temperance advocate Robert Hartley’s 1842 exposé of “swill milk” dairies made a connection between New York’s high infant mortality rate and tainted foodstuffs, not until the 1850s did the general public begin to show much interest in keeping people and livestock separate (Hartley, 1842; Mullaly, 1853; Gates, 1960). Before this time attempts to regu-

late dairies, or to round up the city’s numerous free ranging hogs failed, serving only to incite class conflict (Gilje, 1987).

After the cholera epidemics of 1832 and 1849, cities like New York and Brooklyn began to conduct inspections and pass local legislation that related to the public health issues (Hartog, 1985). The New York State legislature failed to pass a milk adulteration law until 1862, and when it did the ordinance was unspecific and was difficult to enforce (Gates, 1960).

Shipments of country milk by rail squeezed urban produces

Establishment of a Dairy Commission (later the state Department of Agriculture) in 1884 provided an important step toward improving the quality of milk through regulation. At roughly the same time, scientists were unravelling the secrets of bacteria, which eventually resulted in tougher inspection guidelines. Mandatory pasteurisation, the most important of these laws occurred in the 1890s (Hedrick, 1933).

Neighbouring Brooklyn was more successful than New York in eliminating its livestock nuisances (Linder and Zacharias, 1999). Yet Brooklyn’s success, and the disappearance of debate over hogs in that city by the 1870s likely reflects other changes which have little to do with government. Rising land values and increasing prosperity gradually pushed commercial livestock production beyond the city limits, out into the urban fringe. The decline of the distillery industry also reduced local availability of a cheap supply of feed (critical to the urban-rural recycling system). Finally, changing attitudes among New Yorkers who, with each passing year became more removed from the farm, foreshadowed the ultimate fate of the urban livestock industry. Middle-class men and women in post-bellum America regarded swill milk producers and pigs in the street as improper and unacceptable. Whereas a previous generation had battled for the right to raise hogs and manufacture milk, urban Americans from the 1880s forward preferred that their provisions come from the countryside. Urban horticulturists survived on well into the twentieth century for as long as vacant land remained available because their activities did not violate these Victorian standards of propriety.