

SNAPSHOT OF FARMING REGIONS IN 1940

Most Upper Midwestern farmers, including those in Minnesota, were subject to a similar set of broad geographic, economic, technological, and political influences. This regional similarity was one of the arguments that led land-grant universities from 12 Midwestern states to form the Midwest Plan Service in 1932 to reduce duplication of efforts as farm building plans were developed and disseminated.

Within Minnesota, however, there was variation in farm types and farming practices. Many of the differences were a matter of scale or intensity in the type of farming. While farms all over Minnesota milked dairy cows, for example, those that specialized in dairying (i.e., derived the largest proportion of their income from dairying) were concentrated in particular geographic areas where land was too hilly to raise row crops but was well-suited to maintaining pastures and growing hay.

Much of the variation within the state was influenced by geographic factors. Chief among them were environmental conditions (e.g., length of the growing season, topography, and types of soils) and the distance away from major markets. These factors often translated into different levels of farm profitability. For example, in 1929 farms in the southwestern quarter of Minnesota earned the highest income, while those in the northeastern quarter of the state brought in the least (Engene and Pond 1940: 45).

One way to understand statewide variation is to look at the scheme of nine production regions developed by the Minnesota Agricultural Experiment Station (MAES) in the early 20th century. MAES staff used the nine farming areas to help explain the nature of Minnesota farming, to plan their research and outreach activities, and to help other agencies and industries formulate farm policy and programs.

In both 1929 and 1940, the MAES released statewide studies based on the nine farming areas. The 1929 bulletin, written by L. F. Garey, used pre-1925 farm statistics and data gathered in 1925. The 1940 bulletin, written by S. A. Engene and G. A. Pond, expanded and updated the 1929 bulletin and slightly altered the boundaries of the production areas. It was based on 1929 and 1930 data. Engene and Pond also issued a statistical supplement in 1944 that included some data gathered in 1939 (Garey 1929; Engene and Pond 1940; Engene and Pond 1944).

Engene and Pond's nine farming regions from 1940 are shown on the accompanying map and used as a basis for the discussion below. While this discussion provides just a snapshot of Minnesota farming, referencing this information during cultural resource surveys should help predict and explain some of the historic farm resources likely to be encountered in various parts of the state. (For more information on average farm size in Minnesota, see also this context study's individual farm elements section entitled "Farms.")

Farming Regions in Minnesota in 1940



- | | |
|---|---|
| 1 Southeast Dairy and Livestock | 6 Northwestern Dairy and Livestock |
| 2 South Central Dairy and Livestock | 7 Red River Valley Small Grain, Potatoes, and Livestock |
| 3 Southwest Livestock and Cash Grain | 8 Northern Cutover Dairy, Potatoes, and Clover Seed |
| 4 West Central Livestock and Cash Grain | 9 Twin City Suburban Truck, Dairy, and Fruit |
| 5 East Central Dairy and Potatoes | |

source: Engene and Pond 1940

■ AREA 1 – SOUTHEAST DAIRY AND LIVESTOCK

The Southeast Dairy and Livestock area included the hilly southeastern corner of the state and the region immediately east of the Twin Cities. Dairying was the principal type of farming here in 1940.

In 1940 this region contained the highest proportion of wooded, steep, and untillable land in the state. It had more rainfall than any other area and its growing season was longer.

Most untillable farmland was used for permanent pasture in 1929. The grazing capacity of this land was limited by woods and by the type of grass, however, so that farmers in this area also used tillable land for pasture in larger percentages than anywhere else in the state.

Erosion was a serious problem in 1940 and the federal Soil Conservation Service was helping devise farm methods that controlled the erosion. In more level areas, good drainage and lack of stones made it possible to cultivate fields.

Farmers in southeastern Minnesota in 1940 needed to add powdered lime to the acidic soil to grow the alfalfa and sweet clover needed for crop rotation. In some areas phosphorous fertilizer was added to boost crop yields (Engene and Pond 1940: 48).

Number and Size of Farms. In 1939 there were about 22,800 farms in Area 1. They averaged 161 acres in size – about the same as the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 15 percent of farmhouses in Area 1 postdated 1920. About 37 percent of occupied farmhouses had electric lights, 13 percent had mechanical refrigerators, 13 percent had flush toilets, and 20 percent had running water (Davies 1947: 15). In 1939 about 61 percent of farms in Area 1 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 89 percent of farms in Area 1 had an automobile, 23 percent had a truck, and 52 percent had a tractor (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

Based on 1930 data, most farms in Area 1 were classified by Engene and Pond as one of four types. The authors defined 42 percent of farms in Area 1 as dairy farms, 17 percent as animal specialty farms, 26 percent as general farms, and about 4 percent as cash grain farms (Engene and Pond 1940: 49-50).

Dairy Farms. The dairy farms (i.e., farms earning at least 40 percent of income from dairying) averaged about 12 cows per farm in 1930. Most of the cows were specialized dairy breeds. Most



Snapshot of Farming Regions

of the calves not needed to replenish the herd were sold for veal. Dairy farms in the area raised an average of four hogs that ate the skim milk and corn and barley that was grown. The dairy farms derived most of their income from selling dairy products and dairy cows, but most also sold some other livestock (often hogs) and some crops.

Animal Specialty Farms. The animal specialty farms (i.e., those with 40 percent of farm income from beef cattle, hogs, sheep, and wool) were larger than the dairy farms and were concentrated near the Iowa border. The animal specialty farms had an average of 12 cows per farm in 1930, most of which were milked. Most were either beef or dual-purpose breeds. Because of the lack of grain grown in this area, most beef cattle were sold as one- or two-year-old stock to be fattened by others or slaughtered young. Animal specialty farms in the region also raised an average of eight hogs per farm in 1930. A majority of the animal specialty farms received the most income from selling livestock and, secondly, from livestock products such as milk and butter. Small amounts of crops were also sold off the farm.

General or Diversified Farms. General or diversified farms (i.e., those with income from more than one activity with no single source dominating) comprised about 26 percent of farms in the area in 1930. These farms generally kept a combination of cattle (either 1) dairy cattle, or 2) beef or dual-purpose cattle) which were usually milked. The farms raised an average of four hogs and some crops. Farms that met Engene and Pond's classification of "general or diversified" farms were operations that either took in less than 40 percent of income from a single source, or received at least 40 percent of income from each of two sources.

Cash Grain Farms. Cash grain farms (i.e., farms earning at least 40 percent of income from the sale of corn and small grains) comprised about 4 percent of the farms in Area 1 in 1930.

CROPS

In 1929 most tillable land was used to grow small grains and hay, and/or was used for pasture. Most crops were raised for livestock feed, while other crops, especially small grains, were sold off the farm (Engene and Pond 1940: 48-49).

Small Grains. In 1929 small grain production in Area 1 was led by oats (the state's leading small grain crop at the time), followed by barley, with smaller amounts of wheat, rye, and flax.

Cultivated Crops. Much less corn was planted in southeastern Minnesota in 1929 than in counties farther west. In 1939, Area 1 was the only farming area in the state that had more than one percent of its tillable land planted in soybeans – the figure for Area 1 in 1939 was 3.6 percent of tillable land planted in soybeans (Engene and Pond 1944: 13).

Forage Crops. Hay and other forage crops were dominated by timothy and clover in 1929, but alfalfa acreage was increasing.

LIVESTOCK

Cattle. In 1940 dairying was the principal type of farming in this area. In 1930, this part of the state had the third-highest concentration of cows per acre among the Engene and Pond's nine farming regions. Most of the cows were specialized dairy breeds in the northern part of the area

(near Northfield or Red Wing, for example), and were bred for beef or dual purposes in the southern part of the area (close to the Iowa border). Many of the beef and dual-purpose cows were milked as well as being sold for beef (Engene and Pond 1940: 49-50).

Hogs. Hogs were raised in the area in 1930, but in fewer numbers than in other parts of southern Minnesota because of the lack of productive cornfields.

Sheep. About 20 percent of the farms in Area 1 raised sheep in 1930, with an average of 24 ewes per flock.

Poultry. Nearly all farms in the area raised poultry in 1930, with an average of 100 hens per farm. Turkey raising was more common in Areas 1, 2, 3, and 9 than elsewhere in the state. In 1939 there was an average of 375 turkeys raised per farm in Area 1 (Engene and Pond 1944: 18).

Horses. A typical farm in this region kept about four horses and mules in 1930.

■ AREA 2 – SOUTH CENTRAL DAIRY AND LIVESTOCK

The South Central Dairy and Livestock area was located in the south central part of the state, extending from Stearns County on the north to the Iowa border near Albert Lea on the south. Dairying was the principal type of farming here in 1940 (Engene and Pond 1940: 51).

Most of the land in this area was level to rolling. In 1940 it had many poorly-drained low spots and small rough areas that could not be tilled.

Much of the untilled land was used for permanent pasture and, to a lesser extent, to harvest wild hay. The productivity of the permanent pasture areas supported intensive livestock production.

The soil in the area was fertile and the growing conditions favorable for high crop yields. The amount of tillable land used for pasture was low in 1929.

Number and Size of Farms. In 1939 there were about 37,300 farms in Area 2. They averaged 143 acres in size – slightly smaller than the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 18 percent of farmhouses in Area 2 postdated 1920. About 46 percent of occupied farmhouses had electric lights, 15 percent had mechanical refrigerators, 13 percent had flush toilets, and 20 percent had running water (Davies 1947: 15). In 1939 about 44 percent of farms in Area 2 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).



Snapshot of Farming Regions

Autos, Trucks, Tractors. In 1939, about 94 percent of farms in Area 2 had an automobile, 20 percent had a truck, and 55 percent had a tractor (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

Engene and Pond classified 45 percent of the farms in Area 2 as dairy farms, 32 percent as general farms, 10 percent as animal specialty farms, and 4 percent as cash grain farms in 1930 (Engene and Pond 1940: 50-53).

Dairy Farms. The dairy farms (i.e., farms with 40 percent or more of income from dairying) averaged about 12 cows per farm in 1930. By many measures, the dairy farms were like those in Area 1. Most of the cows were specialized dairy breeds. Dairy farms in Area 2 each raised an average of five hogs that ate the skim milk. The dairy farms also raised crops such as corn and barley, largely for feed.

General or Diversified Farms. In 1930 about one-third of farms in Area 2 were general or diversified farms (i.e., earned income from more than one activity with no single source dominating). They were similar in character to the general or diversified farms in Area 1 (see above).

Animal Specialty Farms. In 1930 the animal specialty farms (i.e., those with 40 percent of farm income from beef cattle, hogs, sheep, and wool) were similar in characteristics to those in Area 1, except that more hogs were raised on animal specialty farms in Area 2. In 1930 the animal specialty farms in Area 2 milked an average of 12 cows and raised an average of nine hogs.

Cash Grain Farms. About four percent of the farms in Area 2 in 1930 were cash grain farms (i.e., farms earning at least 40 percent of income from the sale of corn and small grains). The most important crops were corn and small grains.

CROPS

In 1929 crop yields in Area 2 were higher than anywhere else in the state. Corn and small grains were the most important crops. Most crops were grown for livestock feed (Engene and Pond 1940: 51).

One study reported in 1932, "Although the growing season is short for corn production, many farmers get yields of corn fully as large as those obtained on the better farms of the central Corn Belt [i.e., farther south]. A large proportion of the crop is in small grain and hay each year. Most of the crops are marketed in the form of dairy products and pork. . . . On some of the farms sugar beets, canning peas, sweet corn, or potatoes are grown but for the most part only feed crops are raised" (Wilcox et al 1932: 5).

Small Grains. In 1929 small grains in Area 2 consisted of 50 percent oats (the state's leading small grain crop at the time), 25 percent barley, and 25 percent wheat. The wheat was planted mostly in LeSueur, Scott and nearby counties.

Cultivated Crops. Corn was the major inter-tilled crop in 1929, although some potatoes were grown, especially in Freeborn, Wright, and Stearns counties.

Forage Crops. In 1929 more than one-third of the tame hay grown was alfalfa.

LIVESTOCK

Cattle. In 1930 dairying was the principal type of farming and dairy cows were the most prevalent livestock. In 1930, two important measures in Area 2 – the number of cows per acre and the income per acre from the sale of livestock and livestock products – were second only to those in the Twin Cities suburban area. Most cows kept in Area 2 were specialized dairy breeds, although some beef and dual-purpose cows were kept. The number of beef cattle was relatively low and they were more often found in the southwestern part of the area (Engene and Pond 1940: 50-52).

Hogs. In 1930 hog raising was the second most important livestock activity, with the number of hogs per acre higher in Area 2 than in all other parts of the state except Area 3 in Minnesota's southwestern corner.

Sheep. Relatively few sheep were raised in Area 2 in 1930. In 1939, the number of sheep in Area 2 averaged 17 ewes per farm (Engene and Pond 1944: 18).

Poultry. Income from poultry was important and the number of chickens was large in 1930. In 1939 there was an average of 136 chickens per flock in Area 2. More turkeys were raised in Areas 1, 2, 3, and 9 than elsewhere in the state. In 1939 there was an average of 220 turkeys raised per farm in Area 2 (Engene and Pond 1944: 18).

Horses. A typical farm in this region kept about four horses and mules in 1930.

■ AREA 3 – SOUTHWEST LIVESTOCK AND CASH GRAIN

The Southwest Livestock and Small Grain area comprised nearly a dozen counties in the southwestern corner of the state. Farms Area 3 were a mixture of types in 1940 (Engene and Pond 1940: 16-17, 53-56).

The southwestern Minnesota farming region had been settled about 20 years later than counties in the southeastern corner of the state. The land in Area 3 was level to rolling. It had many areas of poor natural drainage which, by 1940, had been drained artificially. In 1929 tilled acreage predominated, constituting about 78 percent of the area's farmland. Only 4 percent of the land was used for wild hay and 13 percent for permanent pasture in 1929.



In 1930 crop yields were fairly high in the eastern parts of Area 3, but were lower and fluctuating in the northwest (near Marshall and Canby, for example).

The level land and soil types allowed the use of large machinery, which favored concentrate crops such as corn, rather than forage crops. The concentrated crops, in turn, favored the fattening of livestock for meat.

Snapshot of Farming Regions

Number and Size of Farms. In 1939 there were about 21,300 farms in Area 3. They averaged 204 acres in size – larger than the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 18 percent of farmhouses in Area 3 postdated 1920. About 40 percent of occupied farmhouses had electric lights, 15 percent had mechanical refrigerators, 9 percent had flush toilets, and 13 percent had running water (Davies 1947: 15). In 1939 about 54 percent of farms in Area 3 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 95 percent of farms in Area 3 had an automobile, 18 percent had a truck, and 73 percent had a tractor. The tractor rate was much higher than the state average of 49 percent (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

In 1930 farmers in this area earned important income from the sale of livestock and from the sale of crops – a more diverse mix than found, for example, in intensive dairying regions (Engene and Pond 1940: 53-55).

In 1930, 34 percent of farms in Area 3 were classified as general or diversified farms, 32 percent were animal specialty farms, 22 percent were cash grain farms, and only 7 percent were dairy farms. Other types of farms were small in number.

General or Diversified Farms. General or diversified farms had incomes from more than one activity with no single source dominating. In 1930 most of these farms in Area 3 raised hogs and milked cows. Some fattened calves born on the farm and a very few shipped in calves to be fed. In 1930 these farms received income about equally from selling crops, selling livestock, and selling livestock products like milk and butter.

Animal Specialty Farms. In 1930 the animal specialty farms (those with 40 percent of farm income from beef cattle, hogs, sheep, and wool) averaged 217 acres and were larger than those in counties farther east. Raising beef for meat was important. Although four-fifths of all cows in the area were milked in 1930, most of them were beef or dual-purpose breeds whose calves were fattened and sold for slaughter. Farmers on animal specialty farms also shipped in calves to feed. The area's animal specialty farms also fattened large numbers of hogs.

Cash Grain Farms. The cash grain farms in 1930 were larger than the animal specialty farms. (Cash grain farms earned at least 40 percent of income from the sale of corn and small grains.) About 90 percent kept milk cows, with an average of six milk cows per farm. Many of the calves were fattened and sold for beef.

Dairy Farms. In 1930 only about 7 percent of farms in the area were dairy farms (i.e., farms earning 40 percent or more of income from dairying). They averaged about 12 milk cows per farm, with most cows being specialized dairy breeds. The number of hogs raised on dairy farms in Area 3 was larger than the number raised on animal specialty farms, presumably as a way to use the skim milk. Dairy farms sold fewer crops than other types of farms in the area.

CROPS

In 1940 southwestern Minnesota was a transition area between predominant cornfields to the south, small grain production to the west and northwest, and intensive dairying to the east and northeast. Cropping systems characteristic of all three were found within Area 3. Most of the crops were used for animal feed (Engene and Pond 1940: 53-55).

Small Grains. In 1929 small grains were the largest crop in Area 3, occupying 45 percent of tillable land. Principal grains in 1929 included oats (about 50 percent of tillable land), barley (about 25 percent), and flax (about 3 percent). Oats were the state's leading small grain crop at the time.

Cultivated Crops. With its level fields and fairly high corn yields, this part of Minnesota was considered to be within the U.S. Corn Belt. In 1929 about 40 percent of the land in southwestern Minnesota was used for inter-tilled or cultivated crops – mostly corn. This was the highest percentage of inter-tilled crops anywhere in the state. In 1929 about 90 percent of the area's corn was husked, while 10 percent was used for fodder or silage.

Forage Crops. Relatively small amounts of tame hay were raised in 1930.

LIVESTOCK

Cattle. Dairy cows were the most common type of cattle in southwestern Minnesota in 1940, but dairying was less intensive in Area 3 than in counties to the east and northeast. Most of the milk cows were beef breeds or dual-purpose cows, rather than being high milk producing breeds (Engene and Pond 1940: 53-55).

In 1930 the area's high corn production led farmers to raise more hogs and beef cattle than were raised farther east and northeast where less corn was grown and where dairy cows were more prevalent.

In 1930 about eight percent of farmers in this area had cows "kept mainly for beef." About 25 percent of the state's cows raised for beef were raised on farms in Area 3. Despite these numbers of beef cattle, there were still about 10 milk cows for every beef cow in Area 3 in 1930. Many farmers fattened calves, either their own calves or feeder calves shipped in from other areas (mostly areas farther west).

Hogs. Most farms in Area 3 raised hogs in 1930, taking advantage of local corn production. About 30 percent of the hogs raised in Minnesota in 1930 were raised in Area 3. The area also had more sows per farm than any other part of the state, typically with at least ten litters per year per farm.

Sheep. In 1930 about 20 percent of farms in the area raised sheep, with an average of 24 ewes per flock. During the 1930s the practice of fattening lambs that had been shipped into the region from elsewhere was becoming increasingly common (Engene and Pond 1940: 54). By 1939, the number of sheep in Area 3 averaged 27 ewes per farm (Engene and Pond 1944: 18).

Poultry. Poultry were kept on nearly all farms in Area 3 in 1930. The average flock size was the largest in the state, averaging about 150 hens per farm. Turkey raising was more common in Areas

Snapshot of Farming Regions

1, 2, 3, and 9 than elsewhere in the state. In 1939 there was an average of 398 turkeys raised per farm in Area 3. This was the highest number per farm in the state (Engene and Pond 1944: 18).

Horses. Farms in this region each kept about six horses and mules in 1930.

■ AREA 4 – WEST CENTRAL LIVESTOCK AND CASH GRAIN

The West Central Livestock and Cash Grain area was located in west central Minnesota and extended from Grant County on the north to near New Ulm on the southeast. It encompassed much of the upper Minnesota River Valley. Dairying and small grain farming predominated in 1940.

Engene and Pond reported that the topography, soils, and amount of tillable land were very similar to those of Area 3 (see above), although the amount of rainfall in Area 4 was less and the growing season was slightly shorter (Engene and Pond 1940: 56). West central Minnesota suffered some of the state's most severe droughts in the 1930s.



Number and Size of Farms. In 1939 there were about 23,100 farms in Area 4. They averaged 233 acres in size – larger than the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 16 percent of farmhouses in Area 4 postdated 1920. About 27 percent of occupied farmhouses had electric lights, 9 percent had mechanical refrigerators, 6 percent had flush toilets, and 9 percent had running water (Davies 1947: 15). In 1939 about 43 percent of farms in Area 4 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 93 percent of farms in Area 4 had an automobile, 20 percent had a truck, and 71 percent had a tractor. The tractor rate was much higher than the state average of 49 percent (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

Engene and Pond indicated that the mix of farm types in this area was similar to that of southwestern Minnesota (Area 3), except for slightly more dairy farms and slightly fewer animal specialty farms. Farms were slightly larger than in Area 3. In 1930, 35 percent of farms in Area 4 were classified as general or diversified farms, 24 percent were animal specialty farms, 24 percent were cash grain farms, and 11 percent were dairy farms (Engene and Pond 1940: 56-57).

General or Diversified Farms. In 1930 general or diversified farms (i.e., those with income from more than one activity with no single source dominating) were slightly larger than those in Area 3. They were otherwise similar except they raised slightly more livestock.

Animal Specialty Farms. Animal specialty farms (i.e., those with 40 percent of farm income from beef cattle, hogs, sheep, and wool) were slightly larger than those in Area 3 and otherwise similar except they raised fewer livestock.

Cash Grain Farms. Cash grain farms in 1930 were slightly larger than those in Area 3 but otherwise similar. Cash grain farms were defined as farms earning at least 40 percent of income from the sale of corn and small grains.

Dairy Farms. In 1930 dairy farms (i.e., farms earning at least 40 percent of income from dairying) were slightly larger than those in Area 3 and otherwise similar except they raised slightly fewer livestock.

CROPS

In 1929, small grains occupied about 55 percent of tillable land. Inter-tilled (also called cultivated) crops occupied about 30 percent, and hay and forage crops occupied about 11 percent (Engene and Pond 1940: 56).

Small Grains. In 1929 more small grains were grown in Area 4 and in the Red River Valley (Area 7) than in other parts of the state. In 1929 oats were the principal small grain in Area 4, followed by barley, wheat, and flax. Oats were the state's leading small grain crop at the time.

Cultivated Crops. West central Minnesota was considered to be the northern edge of the U.S. Corn Belt. Corn was the major inter-tilled crop in 1929, although it was less important in Area 4 than in Area 3 to the south.

Forage Crops. Tame hay – mostly alfalfa – occupied six percent of tillable land in 1929.

LIVESTOCK

In 1940 Engene and Pond explained that, like Area 3, Area 4's level terrain facilitated the use of large machinery, which favored growing crops like grain and corn, which in turn favored raising livestock that could be fed the concentrate feeds. Engene and Pond reported, however, that farmers in west central Minnesota saw depressed and unpredictable crop yields in 1917-1936 that hindered the development of the local livestock industry and led farmers to sell off their stock, especially during droughts. As a consequence, Area 4's livestock industry was not as well-developed as that of southwestern Minnesota (Engene and Pond 1940: 56-57).

Cattle. In 1930 the numbers and types of cattle in Area 4 were similar to those in Area 3, although farmers imported fewer feeder calves than did their counterparts farther south.

Hogs. "Considerably" fewer hogs were raised in Area 4 than in Area 3, according to Engene and Pond in 1930.

Sheep. Farmers in west central Minnesota raised "slightly" fewer sheep than did those of Area 3 in 1930 (Engene and Pond 1940: 56-57). However, in 1939, the number of sheep in Area 4 averaged 29 ewes per farm, slightly above the average number of ewes in Area 3 (Engene and Pond 1944: 18).

Snapshot of Farming Regions

Poultry. Poultry were kept on nearly all farms in the area in 1930. In 1939 there was an average of 122 chickens per flock in Area 4 (Engene and Pond 1944: 18).

Horses. A typical farm in this region kept about six horses and mules in 1930.

■ AREA 5 – EAST CENTRAL DAIRY AND POTATOES

The East Central Dairy and Potatoes area encompassed counties north and northwest of the Twin Cities. It extended from Morrison and northeastern Stearns counties on the west to the Wisconsin border on the east. Dairying was the principal type of farming here in 1940.



Engene and Pond reported that the area was level to rolling with some hilly land. Most of the land had been covered with hardwood and coniferous forests that had been logged in the late 19th and early 20th centuries. Part of the region contained poorly-drained peat bogs. In the southwestern section (near southern Mille Lacs and Sherburne counties, for example), the soil was sandy to a sandy loam and did not hold moisture well during drought. This soil also had many stones, lacked nitrogen, and was acidic so that farmers added powdered lime before the alfalfa and sweet clover needed for crop rotation could be grown. Area 5 had large amounts of permanent pasture because of the high percentage of untillable land (Engene and Pond 1940: 58-60).

Number and Size of Farms. In 1939 there were about 19,200 farms in Area 5. They averaged 130 acres in size – smaller than the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 29 percent of farmhouses in Area 5 postdated 1920. About 22 percent of occupied farmhouses had electric lights, 5 percent had mechanical refrigerators, 5 percent had flush toilets, and 10 percent had running water (Davies 1947: 15). In 1939 about 41 percent of farms in Area 5 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 86 percent of farms in Area 5 had an automobile, 12 percent had a truck (a little lower than the state average of 18 percent), and 27 percent had a tractor (lower than the state average of 49 percent) (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

In 1930, 55 percent of farms in Area 5 were classified as dairy farms, 23 percent were general or diversified farms, 7 percent were crop specialty, and 4 percent were self-sufficient (Engene and Pond 1940: 58-60).

Dairy Farms. Dairy farms (defined by Engene and Pond as those earning 40 percent or more of income from dairying) were smaller than those elsewhere in the state, averaging only 131 acres per

farm in 1930. Despite the small farms, the number of cows per farm – an average of ten – was nearly as large as that seen in southern Minnesota. Nearly all of the cows were specialized dairy breeds. Nearly one-half of the dairy farms also raised a small number of hogs.

General or Diversified Farms. In 1930 about 23 percent of the farms in Area 5 were general or diversified (i.e., earned income from more than one activity with no single source dominating). Most of these farms combined dairying, with an average of seven cows per farm, with the sale of crops – mostly rye and potatoes.

Crop Specialty Farms. About 7 percent of farms in this area in 1930 derived at least 40 percent of their income from the sale of potatoes, sugar beets, hay, tobacco, and other minor crops and were therefore categorized by Engene and Pond as crop specialty farms. Potatoes predominated and, in fact, farmers in Area 5 grew proportionally more potatoes in 1929 than did farmers in any other part of the state except the Twin Cities suburban area. Crop specialty farms in Area 5 kept fewer livestock than did the dairy and general farms in the region. Most of the crop specialty farms were located in Isanti County in 1929.

Self-sufficient Farms. About 4 percent of farms in Area 5 were self-sufficient in 1930 – that is, at least 50 percent of the value of all agricultural products were used on the farm rather than being sold, and the farms had only limited outside income. The self-sufficient farms were small – an average of 70 acres – and kept one to three milk cows. Pigs were farrowed on only 20 percent of the farms. Some farms bought pigs from neighbors to be fattened and slaughtered for home use. The cash income from farm products on self-sufficient farms was generally very small.

CROPS

In 1929, Area 5's tillable land was divided as follows: 42 percent small grains, 24 percent inter-tilled (cultivated) crops, and about 27 percent hay and forage crops (Engene and Pond 1940: 58-60).

Small Grains. In 1929 small grains occupied about 42 percent of tillable land in Area 5 – a smaller portion of tillable land than in most other regions in the state. The small grains included about 50 percent oats (the state's leading small grain crop at the time), about 25 percent rye, and about 6 percent barley. The proportion planted in rye was the largest in the state in 1929.

Cultivated Crops. Inter-tilled crops in Area 5 were led by corn, which occupied a comparatively low one-sixth of tillable land in 1929 but was rising by 1940. About one-third of the corn was husked, one-third was cut for fodder, and one-third was used for silage. Large numbers of potatoes were also grown (Engene and Pond 1940: 58-59). In 1939, 2.4 percent of tilled land was planted with potatoes. This was the fourth-highest proportion among the nine farming areas (proportionately more potatoes were grown in Areas 7, 8, and 9) (Engene and Pond 1944: 13).

Forage Crops. Tame hay, especially timothy and clover, accounted for about 25 percent of tillable land in 1929.

Snapshot of Farming Regions

LIVESTOCK

Cattle. Most farms in the area kept milk cows in 1930, as they did in most other parts of the state. The concentration of cows was nearly as high as that of southeastern Minnesota. Most cows were specialized dairy breeds (Engene and Pond 1940: 58-59).

Hogs. In 1930 only about one-half of farms in Area 5 raised hogs, compared to southwestern Minnesota, for example, where most farms kept hogs. The number of hogs per farm (measured by the number of sows per farm) was also lower in Area 5 than in many other regions.

Sheep. Sheep were plentiful in Area 5 in 1930, especially in Kanabec County. In 1939, the number of sheep in Area 5 averaged 20 ewes per farm (Engene and Pond 1944: 18).

Poultry. Most farms in the area raised chickens in 1930, with an average of 72 birds per flock. This average flock size was lower than in regions such as Area 3 (where there were 150 hens per flock) and Area 1 (where there were 100 hens per flock).

Horses. Farms in this area kept an average of three horses and mules in 1930.

■ **AREA 6 – NORTHWESTERN DAIRY AND LIVESTOCK**

Located east of the Red River Valley and west of the state’s north-south axis, the Northwestern Dairy and Livestock region was a large area that stretched from the Canadian border to Stearns County. Dairying was the principal type of farming here in 1940 (Engene and Pond 1940: 60).



All three of the state’s original vegetation types were represented in this area: coniferous forests along the eastern edge, hardwood forests in the southern half, and grassland prairie in the northwest. The topography varied from north to south. The northern portion had level to rolling terrain with large areas of poorly-drained land. The southern part had level to hilly terrain, many lakes, and fewer areas of poorly-drained land. Soils included loams, sand, and some areas of poorly-drained peat.

The growing season was 30 days shorter near the Canadian border (the northern end of Area 6) than near Stearns County (the southern end of Area 6). All but the southern part of Area 6 was a cool farming region characterized by long cold winters, cool soil temperatures, and late spring and early fall freezes. The area suffered especially low crop yields during the years 1917-1936.

Number and Size of Farms. In 1939 there were about 24,100 farms in Area 6. They averaged 199 acres in size – larger than the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 28 percent of farmhouses in Area 6 postdated 1920. About 15 percent of occupied farmhouses had electric lights, 3 percent had mechanical refrigerators, 3 percent

had flush toilets, and 4 percent had running water. These were the lowest percentages for household improvements in the state in 1940 (Davies 1947: 15). In 1939 about 40 percent of farms in Area 6 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 87 percent of farms in Area 6 had an automobile, 11 percent had a truck (a little lower than the state average of 18 percent), and 36 percent had a tractor (a little lower than the state average of 49 percent) (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

Engene and Pond explained in 1940 that Area 6 exhibited a diversity in farming types, in part because it contained both logging cutover and prairie regions. In 1930, 51 percent of farms were categorized as dairy farms, 30 percent were general or diversified farms, and 4 percent were self-sufficient (Engene and Pond 1940: 61-62).

Dairy Farms. Dairy farms in Area 6 (i.e., farms earning at least 40 percent of income from dairying) were predominant in 1930, but they operated with less intensity – including fewer cows – than those further south in the state. Dairy farms milked an average of ten cows per farm, most of them specialized dairy breeds. More than half of the dairy farms also kept pigs.

General or Diversified Farms. This region's general or diversified farms (i.e., those with income from more than one activity with no single source dominating) typically milked cows, raised some other livestock, and sold some crops for income. The general or diversified farms usually had fewer livestock than the area's dairy farms in 1930.

Self-sufficient Farms. About four percent of farms were self-sufficient in 1930. Engene and Pond reported that the self-sufficient farms in Area 6 were quite similar to those in Area 5 (see Area 5 above).

Other Farms. Engene and Pond reported that Area 6 had significant cash grain farms (i.e., farms earning at least 40 percent of income derived from the sale of corn and small grains) in Red Lake and Pennington counties, with most income from wheat and flax in 1930. The authors also reported significant crop speciality farms in Kittson, Roseau, and Marshall counties that raised and sold clover seed. Crop specialty farms were defined as farms earning at least 40 percent of their income from the sale of potatoes, sugar beets, hay, tobacco, and other minor crops.

CROPS

In 1929 Area 6 had relatively small amounts of inter-tilled or cultivated crops compared to other parts of Minnesota. Instead, small grains and hay and forage crops were planted on nearly 80 percent of tillable land. In 1929 small grains occupied 48 percent of tillable land, inter-tilled crops 13 percent, and hay and forage crops about 30 percent (Engene and Pond 1940: 60-62).

Small Grains. In 1929 small grain acreage in Area 6 was dominated by oats, which was the state's leading small grain crop at the time. Barley was grown in the southern counties, wheat was grown throughout the area, and some flax was grown in the northern counties.

Snapshot of Farming Regions

Cultivated Crops. Corn was grown on about 10 percent of the tillable land in 1929, mostly in the southern counties of Area 6. Some potatoes were grown, but this crop was declining in 1940.

Engene and Pond reported that in the northern counties where corn was not grown (and therefore rotation with legumes was not as essential), a large part of the tillable land was left fallow each year to help control weeds.

Forage Crops. In 1929 hay and forage crops occupied about 30 percent of tillable land.

LIVESTOCK

Cattle. More than 90 percent of farms in the area kept milk cows in 1930, although the number of cows per farm was lower than in the state's intensive dairying areas. Most cows were specialized dairy breeds. The number of cows raised for beef production was very small (Engene and Pond 1940: 61).

Hogs. In 1930 about one-half of the farms raised hogs, although the number of hogs per farm was smaller than in many parts of the state.

Sheep. About 25 percent of farms in Area 6 raised sheep in 1930. The northern counties had the largest number of sheep. In 1939, the number of sheep averaged 30 ewes per farm (Engene and Pond 1944: 18).

Poultry. Most farms in the area raised chickens in 1930 but flocks were smaller than those in many parts of the state. In 1939, Area 6 farms kept an average of 71 chickens per farm (Engene and Pond 1944: 18).

Horses. Farms in this area kept an average of four horses and mules in 1930.

■ **AREA 7 – RED RIVER VALLEY SMALL GRAIN, POTATOES, AND LIVESTOCK**

The Red River Valley Small Grain, Potatoes, and Livestock area was located in northwestern Minnesota along the North Dakota border. It included about five entire counties, plus small parts of several adjacent counties. Milking cows and raising small grains predominated in 1940 (Engene and Pond 1940: 60-62).



Much of the land in Area 7 had been settled about 20 years later than southeastern parts of the state.

Soils near the Red River were clay loams and silt loams, while near the eastern edge of the region there were sandy loams and sands. Much of the land had poor natural drainage but had been drained artificially by 1940.

This was a cool farming region characterized by long cold winters and cool soil temperatures. Area 7 had late spring and early fall freezes, making the growing season shorter than in most parts of the state. It was a dry area with periods of drought, high daytime summer temperatures, and low humidity. During the growing season, high temperatures and drying winds removed more moisture from the soil than was usually added via rainfall. The frequent winds also eroded soil and carried airborne particles that damaged crops. Soils in Area 7 were highly alkaline. The land was very flat and prone to flooding.

Area 7's level topography facilitated the use of large machinery in 1940. These machines worked well for the small grain crops that were most suitable for the soil types and relatively short growing season.

Engene and Pond indicated in 1940 that the distance from farm to market for Red River Valley farmers was greater than for farmers in any other part of the state. They explained that "Crops of high value per pound hold an advantage over the more bulky commodities because shipping costs represent a smaller proportion of their value" (Engene and Pond 1940: 63). Red River Valley farmers marketed their wheat through direct rail connections to mills in Minneapolis and to the port in Duluth where the grain could be shipped to the East Coast and Europe.

Number and Size of Farms. In 1939 there were about 14,000 farms in Area 7. They averaged 246 acres in size – the largest in the state and well above the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 20 percent of farmhouses in Area 7 postdated 1920. About 16 percent of occupied farmhouses had electric lights, 4 percent had mechanical refrigerators, 4 percent had flush toilets, and 7 percent had running water (Davies 1947: 15). In 1939 about 42 percent of farms in Area 7 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 87 percent of farms in Area 7 had an automobile, 24 percent had a truck, and 63 percent had a tractor. The tractor rate was higher than the state average of 49 percent (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

Engene and Pond wrote in 1940, "Although this is the principal small grain area in the state, dairy farms are more numerous than either cash grain or crop specialty farms." In 1930, 36 percent of farms were classified as general or diversified farms, 21 percent were dairy farms, 19 percent were cash grain farms, 12 percent were crop specialty farms, and 4 percent were animal specialty farms (Engene and Pond 1940: 63-65).

General or Diversified Farms. General or diversified farms (i.e., those with income from more than one activity with no single source dominating) were the most prevalent type in the Red River Valley in 1930. Most kept an average of seven milk cows and some raised hogs and sheep. Small grains and potatoes were sold by many, and some farms sold clover seed and hay.

Snapshot of Farming Regions

Dairy Farms. Dairy farms (i.e., farms earning 40 percent or more of income from dairying) averaged 239 acres in 1930 and were larger than dairy farms in other parts of the state. They milked an average of ten cows per farm, and kept few other livestock.

Cash Grain Farms. Cash grain farm (i.e., farms earning at least 40 percent of income from the sale of corn and small grains) were the largest farms in Area 7 in 1930. Wheat, oats, barley, and smaller amounts of flax were the principal crops. About 80 percent of cash grain farms also had milk cows and about 50 percent of them also had hogs.

Crop Specialty Farms. About 12 percent of farms in Area 7 in 1930 earned at least 40 percent of their income from the sale of potatoes, sugar beets, hay, tobacco, and other minor crops and were therefore categorized by Engene and Pond as crop specialty farms. Potatoes were the most important crop. In Clay County, crop specialty farms were the most numerous type and accounted for one-quarter of farms in the county.

Animal Specialty Farms. Animal specialty farms in Area 7 (i.e., those with 40 percent of farm income from beef cattle, hogs, sheep, and wool) were concentrated in the southern end of the Red River Valley and were comparatively large in 1930. On these farms many of the cows were beef or dual-purpose breeds that were also milked. Calves not needed to replenish the herd were often sold as feeder calves or fattened on the farm and sold for beef. Some farmers also bought calves or lambs from other regions to finish.

CROPS

In 1929, 55 percent of tillable land in Area 7 was used for small grains, 9 percent for inter-tilled (i.e., cultivated) crops, 18 percent for hay and forage crops, percent, and 18 percent for other uses such as lying fallow. Area 7 had the lowest crop yields in the state in 1929 (Engene and Pond 1940: 62-63).

Small Grains. Wheat was a principal crop in this region, even though it had declined in importance statewide. To combat problems that accompanied the wheat monoculture like soil infertility, crop diseases, insects, and weeds, farmers increasingly diversified their crops by replacing much of the wheat with oats, barley, and forage crops. Among popular crops were small grains and oil seeds such as safflower, rape, flax, sunflower, and mustard.

In 1940, the production of grain was the primary farming activity in the Red River Valley. Engene and Pond reported that in 1929 Area 7 was the only region in the state where the income from crops was equal to the income from livestock sales and livestock products combined. This was despite the fact that this area had the lowest crop yields in the state.

The Red River Valley was also the only region in 1929 where oats was not the predominant small grain. Instead, oats, barley, and wheat were being planted in roughly equal amounts.

Cultivated Crops. Because of the short growing season, corn was a minor crop, occupying less than five percent of tillable land in 1929.

Potato fields comprised another approximately five percent of tillable land in 1929. This represented nearly one-third of total potato acreage in the state. Engene and Pond explained that potato

production in Area 7 was on the increase as Minnesota’s concentrated potato growing area was shifting from east central Minnesota to the Red River Valley (Engene and Pond 1940: 62-63). In 1939, about three percent of tilled land in Area 7 was planted with potatoes. This was the second-highest proportion among the nine farming areas, surpassed only by the Twin Cities suburban area (Area 9) (Engene and Pond 1944: 13).

Forage Crops. Forage crops, which could generally be grown during a short season, were also prevalent in Area 7 in 1929.

LIVESTOCK

Engene and Pond reported in 1940 that livestock production was increasing in the Red River Valley, but was still less intensive than in other parts of the state (Engene and Pond 1940: 63-64).

Cattle. Dairying was the most important livestock activity in 1930. About 90 percent of the region’s farms had dairy cows – an average of more than seven cows per farm. About 80 percent of the cows were specialized dairy breeds. The number of cows raised mainly for beef was small.

Hogs. About 40 percent of the farms in Area 7 raised pigs in 1930.

Sheep. About 20 percent of Red River Valley farmers raised sheep in 1930. This was the only area in the state where the number of ewes was more than the number of cows in 1930 (Engene and Pond 1940: 63). In 1939, the number of sheep in Area 7 averaged 41.6 ewes per farm – the highest average in the state (Engene and Pond 1944: 18).

Poultry. Most farms in the area raised chickens in 1930 but the flocks were smaller than those in many parts of the state. In 1939 there was an average of 77 chickens per farm in Area 7 (Engene and Pond 1944: 18).

Horses. In 1930 farms in this area kept about six horses and mules.

■ **AREA 8 – NORTHERN CUTOVER DAIRY, POTATOES, AND CLOVER SEED**

The Northern Cutover Dairy, Potatoes and Clover Seed region encompassed a vast territory in northern Minnesota beginning west of Red Lake on the west, extending south of Mille Lacs Lake on the south, and including the entire Arrowhead region. It was the largest of Engene and Pond’s farming regions. Dairying was the principal type of farming here in 1940.



In 1939 only about 18 percent of the land in Area 8 was in farms. This number was quite low compared to Area 3 (southwestern Minnesota, for example) where 97 percent of the land was in farms (Engene and Pond 1944: 8).

Snapshot of Farming Regions

Engene and Pond indicated that the characteristics of the northern cutover area – Area 8 – were unique in the state. The area had been settled by Euro-Americans later than other parts of Minnesota and by 1930 only 15 percent of the land area was used for farms. The farms were small, still under development, and generating low income. The authors wrote in 1940, “Costs of clearing have been high, and large areas with soils of low productivity have been encountered.” They also wrote, “There are many serious economic problems which must be solved before this can become a stable agricultural region” (Engene and Pond 1940: 16-17; 65-66).

The cutover had been covered by coniferous forests that had been mostly logged by 1940. Clearing the stumps for farmland was extremely difficult. Stones were prevalent, especially in the eastern counties, often making tillage impossible. The terrain varied from level to rolling to hilly with many knolls and ridges. Low spots included poorly-drained depressions left by glaciers, as well as numerous peat bogs that were especially plentiful in the northern counties. The area had large amounts of untillable land that were used as permanent pasture. In 1929, 42 percent of farmland was in permanent pasture and mostly wooded, and another 17 percent was wooded and not used for pasture (Engene and Pond 1940: 65-66). In 1939, about 34 percent of farm land in Area 8 was “woodland” – by far the largest percentage in the state (Engene and Pond 1944: 8).

The region’s soils were extremely poor in some areas and in others consisted of well drained loams, sand plains, wet clay loams, and peat bogs. According to Engene and Pond, “Areas of good soils are intermingled with soils of such low productivity as to have little agricultural value” (Engene and Pond 1940: 65).

The growing season was relatively short. Annual crop yields were about average for the state.

Engene and Pond explained in 1940 that the local timber industry was beneficial in two ways: by creating off-farm jobs for farmers, and by bringing many workers to the region which created a local market for farm products. The local timber workforce was declining in 1940, however, because of the depletion of wood resources and increases in labor-saving mechanization.

Like logging, iron mining was an important industry in 1940 that employed large numbers of people, including some farmers, and created a local market for farm products.

In 1940 some farmers in the region also augmented their farm income by catering to tourists. They served as fishing or hunting guides, for example, or built small rental cabins or resorts on their lakeshore property. The tourism industry also provided a market for farm products.

Number and Size of Farms. In 1939 there were about 30,000 farms in Area 8. They averaged 103 acres in size – considerably smaller than the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 58 percent of farmhouses in Area 8 postdated 1920. About 20 percent of occupied farmhouses had electric lights, 3 percent had mechanical refrigerators, 4 percent had flush toilets, and 7 percent had running water (Davies 1947: 15). In 1939 about 34 percent of farms in Area 8 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 73 percent of farms in Area 8 had an automobile, 15 percent had a truck, and 24 percent had a tractor (lower than the state average of 49 percent) (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

Dairying was the principal farm endeavor in this area in 1930. In that year, 40 percent of farms were categorized as dairy farms, 18 percent were general or diversified, 13 percent part-time, 12 percent were self-sufficient, and 7 percent were crop specialty (Engene and Pond 1940: 65-68).

Dairy Farms. Dairy farms (i.e., farms earning 40 percent or more of income from dairying) were fairly small, averaging only 134 acres in 1930. They kept an average of seven cows per farm. About half of dairy farms also sold some forest products.

General or Diversified Farms. General or diversified farms (i.e., those with income from more than one activity with no single source dominating) earned income from a mixture of crop sales, sales of agricultural products or livestock, and sale of forest products. In 1930 about one-half of diversified farms in this area earned income from forest products.

Part-time Farms. About 13 percent of farms in this area were part-time farms in 1930. These were defined by Engene and Pond as farms on which at least 150 days were spent on work away from the farm or the operator's occupation was reported to be other than that of farmer *and* total income from farm products was low (e.g., \$750 in 1929). Engene and Pond reported in 1940, "These farms are smaller than the self-sufficing farms, but other information concerning their organization is not available" (Engene and Pond 1940: 68).

Self-sufficient Farms. About 12 percent of farms in this area were categorized as self-sufficient in 1930. These farms were small – an average of 84 acres – and typically had few livestock. Engene and Pond explained in 1940, "Many of these farms represent new developments where the settlers have not yet had time to clear land and obtain the livestock that is necessary for satisfactory incomes, but a large proportion of them represent farms that are permanently on a subsistence basis with a very low standard of living" (Engene and Pond 1940: 68).

Crop Specialty Farms. In 1930 about 7 percent of farms in Area 8 were classified by Engene and Pond as crop specialty farms because they earned at least 40 percent of their income from the sale of potatoes, sugar beets, hay, tobacco, and other minor crops. Potatoes and clover seed were the principal crops raised on these farms, and forest products were sold on about one-quarter of them.

CROPS

In 1929, 23 percent of tillable land in Area 8 was used for small grains, 9 percent for inter-tilled (i.e., cultivated) crops, and 59 percent for hay and forage crops (Engene and Pond 1940: 65-66).

Small Grains. In 1929 about two-thirds of the small grain fields were planted with the state's leading grain crop – oats – and about one-third with barley.

Cultivated Crops. About nine percent of the region's tillable land was inter-tilled crops in 1929. About one-half was corn and the other half potatoes. In 1939, 2.5 percent of tilled land in Area 8

Snapshot of Farming Regions

was planted with potatoes. This was the third-highest proportion among the nine farming areas, behind Area 7 and Area 9 (Engene and Pond 1944: 13).

Forage Crops. According to Engene and Pond in 1940, “The outstanding characteristic of the cropping system of Area 8 is the large proportion of tillable land that is used for the production of tame hay.” The hay crop and the area’s large amounts of permanent pasture helped enable the local dairy industry. However, many of the concentrate feeds needed for dairy cows (e.g., corn and small grains) had to be imported because they could not be grown locally (Engene and Pond 1940: 65-66).

LIVESTOCK

Cattle. About 80 percent of farms in Area 8 milked cows in 1930, with an average of more than five cows per farm. Most of the cows were specialized dairy breeds (Engene and Pond 1940: 64-67).

Hogs. Hog production in Area 8 was “very limited.” For example, in 1930 only 14 percent of farms were farrowing any pigs.

Sheep. In 1930, “some” sheep were raised in the area (Engene and Pond 1940: 67). In 1939, the number of sheep in Area 8 averaged 24.5 ewes per farm (Engene and Pond 1944: 18).

Poultry. Most farms in the area raised chickens in 1930 but the flocks were comparatively small. In 1939 there was an average of 43 chickens per farm in Area 8 – the smallest average number in the state (Engene and Pond 1944: 18).

Horses. In 1930 this region had one to two horses and mules per farm, the lowest average in the state.

■ AREA 9 – TWIN CITY SUBURBAN TRUCK, DAIRY AND FRUIT

This production area immediately surrounded Minneapolis and St. Paul, which in 1940 had a combined population of about 750,000.

In 1940 the Twin Cities Suburban farming area was a region of intensive, small-scale agriculture, generally organized to supply food to Twin Cities residents. The metropolitan area created a large market for perishable foods such as vegetables, berries, small fruits, milk, cream, and eggs.



The terrain ranged from level to hilly, with a large proportion of rolling land. The growing season was relatively long – averaging about 160 days in much of the area.

The soils included both loams and large areas of sand and peat that were less productive.

In 1929, according to Engene and Pond, the proportions of farmland that were tillable, that were used for wild hay, and that were used as permanent pasture were similar to those in Area 2, southwest of the Twin Cities (Engene and Pond 1940: 68).

Number and Size of Farms. In 1939 there were about 5,100 farms in Area 9. They averaged 57 acres in size – the smallest in the state and considerably smaller than the 1939 state average of 165 acres (Engene and Pond 1944: 24).

Farmhouses. In 1940, about 37 percent of farmhouses in Area 9 postdated 1920. About 76 percent of occupied farmhouses had electric lights, 34 percent had mechanical refrigerators, 35 percent had flush toilets, and 44 percent had running water. These were the highest percentages in the state by a considerable margin (Davies 1947: 15). In 1939 about 49 percent of farms in Area 9 had a telephone. The state average was 49 percent (Engene and Pond 1944: 28).

Autos, Trucks, Tractors. In 1939, about 85 percent of farms in Area 9 had an automobile, 37 percent had a truck (the highest percentage in the state and higher than the state average of 18 percent), and 30 percent had a tractor (Engene and Pond 1944: 28).

PREDOMINANT TYPES OF FARMS

In 1930 this region had more diversity in the types of farms than other regions. In that year, 40 percent of farms in this region were classified as dairy farms, 10 percent were general or diversified, 10 percent were truck farms, 8 percent were crop specialty farms, 6 percent were fruit farms, and 4 percent were poultry farms (Engene and Pond 1940: 69-70).

Dairy Farms. Dairy farms (farms earning 40 percent or more of income from dairying) were most numerous in this region in 1930. Dairy farms were also the largest type of farms in the region but, at an average of 92 acres each, were small compared to dairy farms elsewhere in the state. The number of cows per herd was about equal to levels elsewhere in Minnesota in 1930. Some farmers bought replacement calves rather than raising their own, and few young calves were raised in the area for any reason other than to enter dairy herds.

General or Diversified Farms. Most general or diversified farms in this region (i.e., those with income from more than one activity with no single source dominating) kept dairy cows for the sale of milk or cream, as well as raising either potatoes, vegetables, or fruits for sale.

Truck Farms. In 1930, ten percent of farms in Area 9 were truck farms. This region was the only part of the state that had a significant number of truck farms, which were defined as farms that derived significant income from raising crops such as vegetables and flowers that were generally sold fresh rather than being processed before selling. These farms were very small, averaging only 24 acres with an average of 16 acres of harvested crops and few livestock. The income per acre generated on these farms was high compared to income per acre on other farms in the state.

Crop Specialty Farms. Crop specialty farms were those with 40 percent of farm income derived from the sale of crops. They comprised eight percent of farms in this area in 1930. The sale of potatoes was especially important.

Snapshot of Farming Regions

Fruit Farms. In 1930, Area 9 was also the only region with a significant number of fruit farms (i.e., farms that derived a significant portion of income from selling small fruits such as berries). They accounted for six percent of all farms in the region and were especially concentrated west and southwest of Minneapolis. Strawberries and raspberries were the predominant fruits grown in 1930. Like truck farms, these were small farms, averaging 23 acres. They had few livestock. Like truck farms, they generated relatively high income per acre.

Poultry Farms. In 1930, poultry farms accounted for four percent of farms in Area 9. (Poultry farms were farms that derived a significant portion of income from poultry raising.) Most raised fresh eggs for Twin Cities markets. In size they averaged only about 14 acres per farm, but each kept an average of 250 hens. They averaged only seven acres of harvested crops and purchased much of their chicken feed. They had few other livestock.

Other Farms. Engene and Pond reported that in 1930 this region also had some part-time, self-sufficient, and other types of farms.

CROPS

In 1929, only 27 percent of tillable land in Area 9 was used for small grains, a percentage that was low compared to most of the rest of the state. About 31 percent of tillable land was devoted to inter-tilled (i.e., cultivated) crops, 31 percent to hay and forage crops, and 10.5 percent to other uses including truck crops and berries (Engene and Pond 1940: 68-69).

Small Grains. In 1929, about 27 percent of tillable land in Area 9 was used for small grains. Oats and barley were the principal grains planted.

Cultivated Crops. About 31 percent of the region's tillable land was used for inter-tilled or cultivated crops in 1929 – about two thirds of this was corn and about one-third potatoes. The proportion of tillable land devoted to potatoes was larger here than in any other region in the state in both 1929 and 1939 (Engene and Pond 1944: 13).

Forage Crops. Nearly one-third of tillable land was planted to hay and forage crops in 1929.

Other Crops. Area 9 produced about one-third of the state's small fruits and vegetables in 1929, excluding sweet corn and canning peas. About six percent of the tillable land in this region was used for these types of special crops – a larger percentage than in any other region in the state.

LIVESTOCK

Cattle. In 1930, dairy cattle were the predominant type of livestock. Most of the cows were special dairy breeds. There were relatively few beef cattle in 1930 (Engene and Pond 1940: 69).

Hogs. A small percentage of farms raised hogs in 1930. Some of the hogs were fed on garbage from the city.

Sheep. There were relatively "few" sheep raised in the region in 1930. In 1939, the number of sheep in Area 9 averaged 30 ewes per farm (Engene and Pond 1944: 18).

Poultry. Poultry was kept on most farms in the area in 1930. Most flocks were relatively small but there were also several large poultry operations (Engene and Pond 1940: 69). In 1939 there was an average of 83 chickens and 311 turkeys per farm in Area 9. Turkey raising was more common in Areas 1, 2, 3, and 9 than elsewhere in the state (Engene and Pond 1944: 18).

Horses. In 1930 farms in this region had an average of two to three horses and mules.

SOURCES

Davies, Vernon. "Farm Housing Needs in Minnesota." *University of Minnesota Agricultural Experiment Station Bulletin* 393 (1947).

Engene, Selmer A., and George A. Pond. "Agricultural Production and Types of Farming in Minnesota." *University of Minnesota Agricultural Experiment Station Bulletin* 347 (1940).

Engene, Selmer A., and George A. Pond. "Statistical Supplement to Bulletin 347: Agricultural Production and Types of Farming in Minnesota." *University of Minnesota Agricultural Experiment Station Bulletin* 347 (1944).

Garey, L. F. "Types of Farming in Minnesota." *University of Minnesota Agricultural Experiment Station Bulletin* 257 (1929).

Wilcox, Walter W., Andrew Boss, and George A. Pond. "Relation of Variations in the Human Factor to Financial Returns in Farming." *University of Minnesota Agricultural Experiment Station Bulletin* 288 (1932).



Farms in Area 8 – northeastern Minnesota’s cutover region – averaged 103 acres in 1939, considerably smaller than the state average of 165 acres. Most farm buildings were modest as well. Near Graceton, Lake of the Woods County, circa 1919. (MHS photo)



In 1929 more small grains were grown in Area 4 (west central Minnesota) and in the Red River Valley (Area 7) than in other parts of the state. Western Minnesota's flat terrain was well-suited to expansive grain fields that could be profitably worked with large machines. This farmstead's windbreak offered its only protection from the ever-present wind. Western Minnesota, circa 1930. (MHS photo by Harry Darius Ayer)

Snapshot of Farming Regions



Farms in Area 9, the Twin City Suburban Truck, Dairy, and Fruit region, raised vegetables, fruit, potatoes, poultry, milk, and eggs for Twin Cities markets. The farms were small because of high land prices, and many eventually succumbed to urban development. Tierney Farm, Richfield, Hennepin County, 1954. (MHS photo by *Minneapolis Star*)