

Agriculture

TRAVERSE COUNTY AGRICULTURE FROM THE ICE AGE TO STAR WARS

Grandparents of senior citizens of today would consider this documentation a replay of the life they lived. It is impossible to believe in this age of fast changes that the prairie did not change appreciably from the time of the ice age until the first fur traders surveyed this land. The native Indians did not change the topography of the land by tillage practices or by engineering structures for habitation.

The settlement of western Minnesota was hastened by the Homestead Act of May 20, 1862, which allowed 160 acres as a homestead and in some instances an additional 160 acres for a tree claim. Advertisements were placed in foreign papers by local businesses in Minnesota. Veterans of the Civil War were allowed land closer to the railroad as it came west, thus immigrants were forced to settle farther from the railroads, and transportation was more of a problem. Surveyors placed markers on each section starting in 1870 and worked east and north, and the northwestern part of Traverse County was not finished until 1872 or 1873. The western part of the county was developed first because the new settlers homesteaded near water sources such as lakes and rivers.

The following description written at the time for publicity purposes tells what one author thought of the area: "Light and mellow, a dark loam, the earthy materials finely pulverized, silica abounding — such is our soil. The acids of our so-called 'alkali', a combination of lime, soda,

potash, magnesia, and other ingredients, help make our country what it is, the great cereal belt of the world. There is scarcely a square rod of all this beautiful prairie but what can be tilled." Those first settlers were not aware that they were settling the southern end of what would become the



A threshing scene in 1935. Melvin Simonson is pictured on the left, while Edward Larson, owner of the rig, is pictured standing atop it. No identification of the man on the right. Photo taken in Lake Valley Township.



Algot and Chester Johanson are pictured in 1911 breaking virgin soil in Clifton township. Four horses were used to pull the plow, a single bottom wooden beam 16-inch breaker.

most famous agricultural valley in the world next to the Nile Valley in Egypt.

Since disks and heavy machinery were not available to those early settlers, the land was plowed with a breaking plow (walking plow), one bottom with handles, which the farmer held as best he could to regulate depth. For each acre plowed the farmer would walk at least eight miles, usually a good day's work. The land was then left over winter to freeze, and a type of drag would be used in the spring, making a crude seed bed by today's standard, but it worked for coarse grains like wheat.

The first farmers settled in 1871 but many followed the next year. The Catholic Colonization Bureau in Graceville was given authority to act as agents for railroad land in the area to sell to settlers in 1880. Farmers had problems getting supplies and often left home in the winter and worked elsewhere if possible in order to survive.

Early agricultural reports reveal that in 1872 one farmer had seeded four acres to beans, corn and potatoes. The beans and potatoes were good, but the corn was

destroyed by birds. There was a grasshopper invasion in August 1873 and most of the grain was destroyed. In 1879 the county raised 45,000 bushels of wheat. In 1881 that yield had increased to 200,000 bushels. The first report of a good crop was 1888.

The first mention of threshing wheat was made in 1875. It was done by placing the grain around a post, driving the cattle over it, then throwing the chaff and straw up in the wind and letting nature separate the straw from the grain. The grain had first been cut by a scythe. A newspaper story on threshing in 1880 tells about a farmer who threshed with horse power using five teams walking in a circle making power to operate the separator. Another tells of the threshing outfit coming to the farm with one team of horses pulling the engine and another team pulling the machine. Advertisements in the "Wheaton Gazette" for Case steam engines and Nichols and Sheperd separators appeared in 1895.

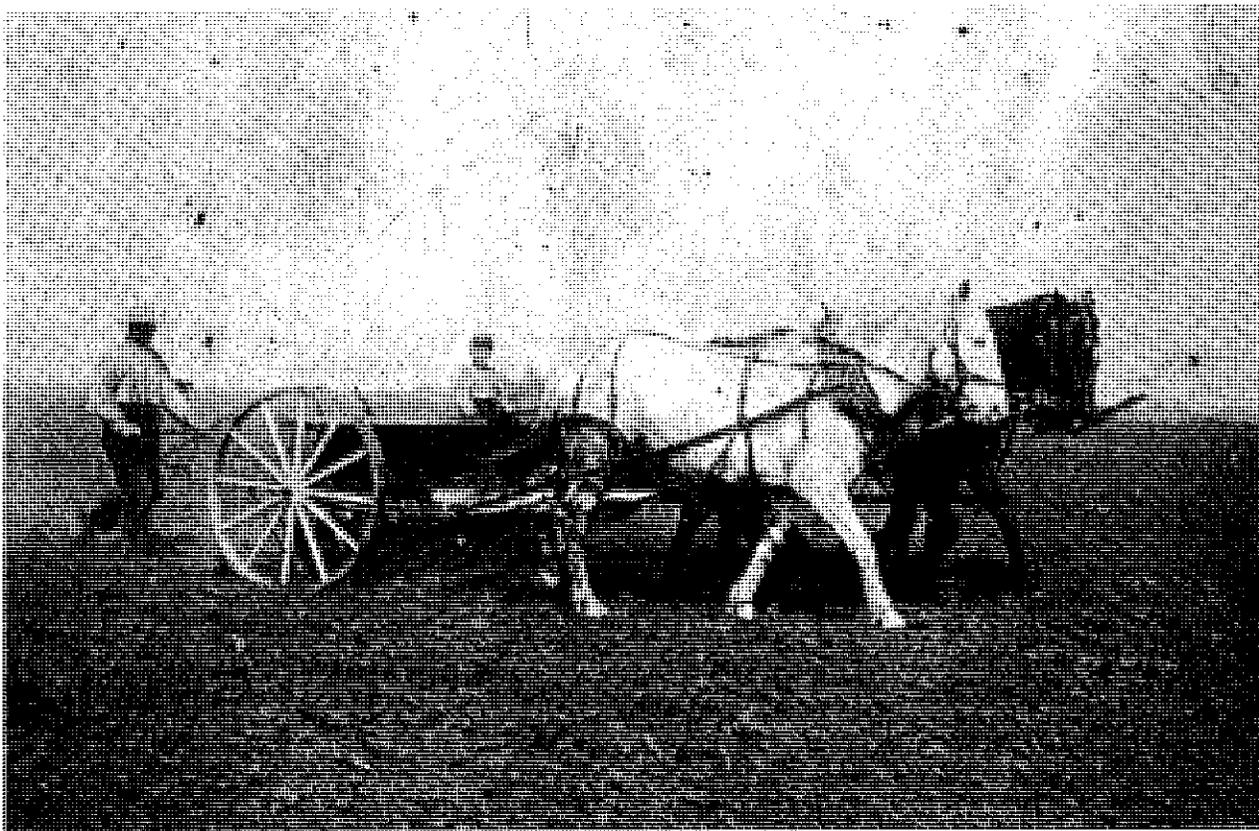
In 1880 M. W. Dale took seed from cottonwood trees along Lake Traverse and planted them around sloughs. In the spring of 1881 he pulled the small trees, bundled

them and sold them for \$2.00 a bundle. Thus the first windbreaks and farmstead groves were planted by the initiative of one man.

By 1881 all government claims had been entered (homesteaded) except sections of school and railroad land that were being contested. Generally the farms consisted of 160 acres. There were several large farms. One farm in Tintah Township, owned by Joy and Baldwin, contained not less than twenty sections. The Hulgertson farm, eight miles east of Maudada, was as large. Another large farm had been developed by the Putnams in the Tintah area by 1920, when they had 800 acres of wheat, 140 of oats, 40 of corn, and 30 of barley, plus a dairy operation, with their total tract being 1100 acres. The whole farm was tiled for drainage. In plowing time they used a gasoline tractor which they operated 24 hours a day. In addition 31 horses were used for field work. This operation is further described in the "Century Farms" section.

Livestock was not plentiful in the county for several reasons, all having to do with labor or lack of money. Hay was harvested with a scythe. It was needed for horse feed for power before cattle for milk or meat. There was also a water problem. The first wells were dug by hand, were usually only a few feet deep, would go dry in drought season, and were therefore not dependable for livestock water. Fences had to be built, requiring money for wire and posts. In 1889 a number of farmers in the northern part of the county formed a syndicate and bought a thoroughbred Clydesdale stallion imported for \$1800.00 in order to improve the quality of horses in the area.

One of the earliest land sales was a quarter of land in Croke Township which sold for \$7.00 an acre in 1891. A quarter of land sold for \$2,850.00 (\$18 per acre) in 1901, another quarter sold for \$2,800.00 in 1909. By 1910 the price of land was increasing more rapidly, with a half section in Leonardsville selling for \$70.00 an acre and a quarter in



Seeding the rich prairie land in about 1910. This photo, taken in Lake Valley Township, shows John Johnson walking behind the drill while his young son, Ernest, gets a ride.

Tara for \$65.00 an acre. By 1913 it was generally selling for \$60-85.

An early farmers' organization was the Farmers Alliance, founded upon patriotism and good fellowship with members seeking fair, honest government. The goal was to bring greater prosperity to farmers and the whole country. Another early organization was the Traverse County Threshermen's Organization formed in 1894 to protect owners and operators of machines. Another early group was the Traverse County Stock Breeders Association which held its first annual combination stock sale the last day of the county fair in 1908. The association had distributed 500 catalogs with listings including Black Polled, Red Polled, Hereford and Shorthorn cattle; Poland China, Duroc, and Chester White hogs; Angora goats; and Percheron stallions.

State farm institutes were held in Wheaton periodically in the late 1800's and on to bring information from the experiment stations to the farmers. Experiment stations were started under the Land-Grant Act of 1862 with land-grant colleges in every state carrying on experimental projects and relaying their findings to farmers in every community.

The earliest crops for sale could be marketed through the Wells and Schroeder general merchandise store in Wheaton, which was offering 5 cents over market price on wheat in 1885 if used in trade at their business. No. 1 wheat sold for 60 cents a bushel and the average yield was only 18



August and Ernest Johnson loading bundles from shocks onto a wagon in West Lake Valley Township.

bushels per acre. In 1891 wheat sold for 77 cents to 89 cents a bushel, but \$1.00 was allowed for it on merchandise and horses with wheat yielding 35 bushels per acre. A market report for May 9, 1895, showed wheat at 65 cents, No. 3 corn at 51 cents, oats 32 cents, barley 50 cents, rye 65 cents, hogs \$4.20, and prime cows \$4.00 to \$4.50.

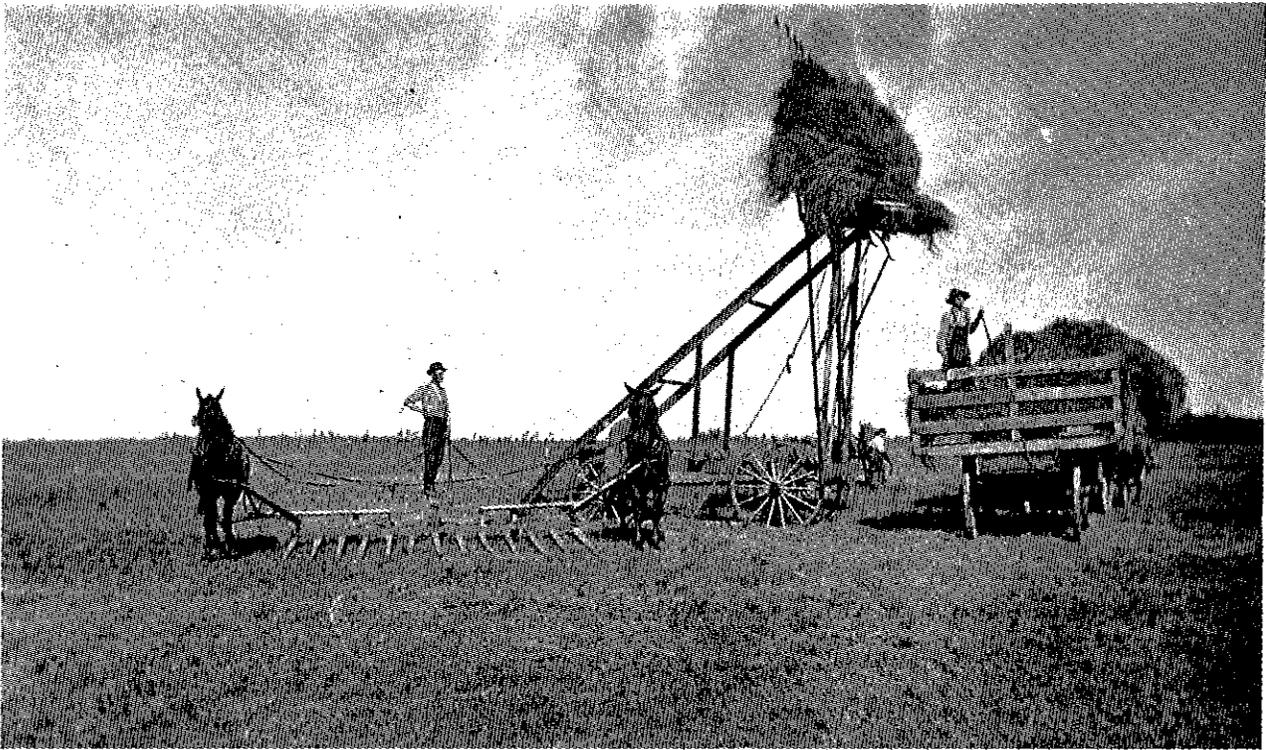
A new crop was introduced in 1899. Farmers interested in producing sugar beets could obtain seed at the county auditor's office. The same rules for production applied then as now: if a contract was obtained, the farmer would be guaranteed a price and a market. The results of this experimental planting are not known.

Action was instituted early to control weeds. On June 15, 1895, a resolution was passed by the county commissioners to destroy Russian thistle and wild mustard on railroad right-of-ways, cultivated land, and roadsides under a state law dealing with this weed problem. A few years later barberry bushes, probably planted by an unsuspecting farm wife for yard beautification, were found in the county. They acted as alternate hosts to crop diseases.

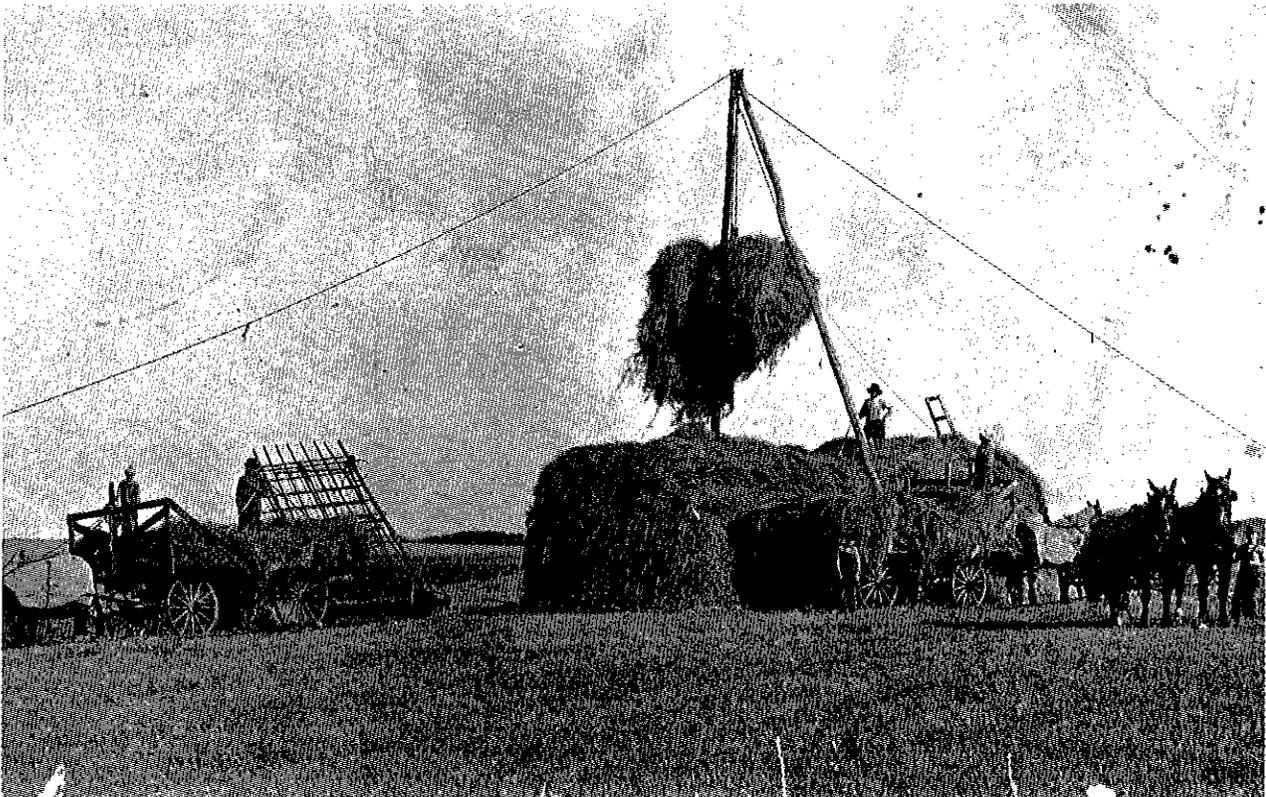
During the first decade of the 1900's experienced farmers could plan to accomplish any of the following in one day with tools of the period: mow ten acres of hay with one team, plant twenty acres of corn, cultivate ten acres of corn with two horses or twenty acres with four horses. By 1906 corn planters with eighty rods of wire to check corn were available, selling for \$30. In 1911 the Universal One Man Farm Tractor was proclaimed to do the work of sixteen horses and four men.

The state passed legislation in 1912 that allowed counties to hire extension agents if the Farm Bureau had enough members to pay part of the wages and costs. Traverse County was the first to have an agent, Fred Marshall, who commenced work September 1, 1912. He distributed information and also furnished individual services such as laying out drain tile, which was being tried at that time. In 1916, 161,000 feet of tile were placed in the ground at a cost of \$5 to \$8 an acre.

In 1912 a seed company in Wheaton distributed 15 sacks of seed barley to boys at school in an effort to improve the seed



Horsepower was used to operate a buckler for stacking hay on a wagon on the Peter Johanson farm in Clifton Township.



Putting up hay on the John Johnson farm in Lake Valley Township.

barley in the county. The boys were to plant the grain, keep the first twenty bushels, and return the rest to be given out the next year. However, it was a wet year, and only one boy was successful in harvesting his plot. That same year potatoes yielded 100 bushels per acre, while the expectation was for twice that yield. Since hybrid corn was not yet available, the selection of seed corn ears was encouraged. It was proven that seed from a well-selected group of ears would yield six to nine bushels more per acre than field-run ears. Winter wheat was tried for the first time in 1922 because of rust in spring wheat varieties.

Hog cholera was a problem in 1914 and continued for several years. The extension office held training schools to teach farmers to vaccinate and handle the serum. Serum distributed to farmers completing the training totaled 350,000 c.c. the first year. Swine losses were very heavy on some farms.

The supply of good feed for livestock was a problem in 1915 and the growing of alfalfa instead of wild grass hay was urged. It was also at this time that the use of silos

for corn was demonstrated. By 1918 there were 65 silos in the county according to tax lists.

The first fertilizer trials were held in the county in 1915, using 6-5-16 and 6-18-16 analysis at rates up to 500 pounds per acre.

Isaac Lee, local implement dealer, was selling 1916 model 8-16 tractors for \$725.00 f.o.b. Chicago. "Moguls" were designed to operate on kerosene, saving a third of their price each year in fuel costs alone.

Involvement in World War I in 1917 necessitated increased food production for the Allies as well as Americans. Farmers were asked to plant 15 percent more wheat and 20 percent more corn. At that time the county produced potatoes commercially, and a special order of five carloads of seed was sent to Wheaton with an additional three carloads to Dumont and two to Tintah. The American Defense League set wages for farm help at \$4.00-4.50 per day.

With seed germination very bad because of wet conditions in 1916, county commissioners authorized the purchase of hun-



When harvest time rolled around back near the turn of the century, this is the way things looked. This photo was taken in 1890 on the Swan Carlson homestead in Monson Township. Swan Carlson came from Illinois in 1882 to homestead. He was born in Sweden and migrated to the United States. Not long after settling in Monson Township, Carlson became the owner of one of the first steam engine threshing rigs, harvesting his own crops and then moving the rig to the farms of others who all joined in to form the threshing crew. Swan Carlson, as a homesteader back in 1882, was one of the county's earliest farmers. He is pictured in the photo, the bearded man just to the left of the straw pile behind the thresher.



A horse owned by Peter Elfstrom, who farmed near Wheaton, gained a great deal of notice throughout the area because of her mane. The animal had a mane that measured 11 feet in length. She is pictured here being held by an unidentified relative of the Elfstroms. Both the hide and the 11-foot mane of the animal are now exhibited at the Traverse County Museum in Wheaton.

dreds of "rag doll" seed testers in 1917, which were distributed through the country schools. The county agent and some township people helped the teachers and students check the germination. In this manner several hundred samples were checked.

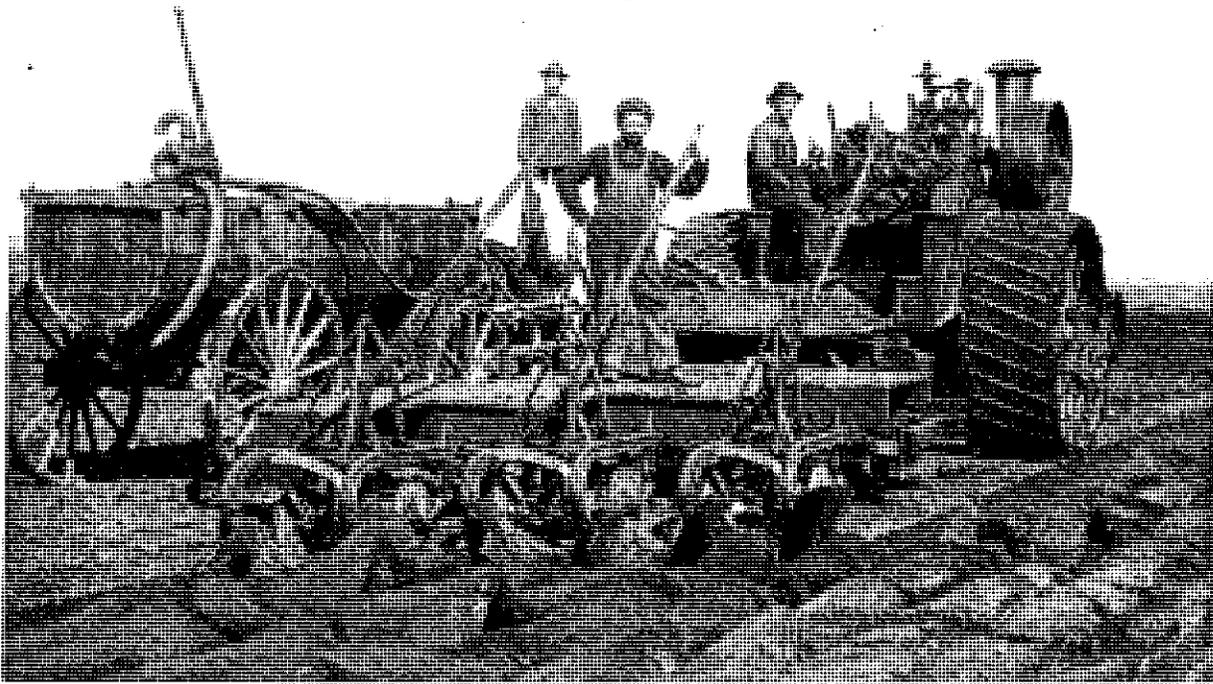
Fred F. Moore became county agent August 1, 1919, retaining the position until 1925. An extension activity at that time was in-depth farm account and income tax assistance, with Moore spending two months making out individual tax forms.

By 1918-19 prices of grain as well as of land were edging up. Wheat sold for \$2.07 and flax for \$3.40 with a top price paid for land at \$125 an acre.

Financial conditions on Traverse County farms were bad in 1923. Prices were unfavorable, there were rust problems with

wheat, there was tuberculosis in cattle, and swine cholera was a serious problem. In addition 55 percent of the land was owned by absentee landlords (this had increased to 60 percent by 1930) with the result that renters were unable or unwilling to invest in better equipment to improve their farm capability. The American Wheat Growers Association held a meeting presenting plans to hold wheat and force buyers to pay the cost of production. Traverse County went to the expense of having all cattle in the county tested for tuberculosis — one of only two counties in the state to do so. Vaccination for cholera continued.

Other farm organizations which started about this time were the Traverse County Poultry Association and a Dairy Herd Improvement Association (DHIA), as well



Turning over soil with a six-bottom plow, pulled by a steam engine tractor. Alongside is the water wagon carrying water to the tractor to generate steam. The water wagon was pulled by horses. Edward Larson is seated on the tractor. Others on the photograph not identified. The picture was taken in Lake Valley Township in about 1920.

as a Wheaton Sheep Club. Eighty 4-Her's attended the first 4-H camp held in the county, which was conducted by Harold Pederson. The DHIA disbanded in 1929 after their third annual meeting due to lack of members.

One of the first years of the 1930's drought period was 1931, a year of low crop yields, poor prices, and comparatively high prices for those supplies which needed to be purchased. The first rather large-scale fertilizer trials were started, but because of the drought the desired early advantage disappeared. It was also a year of much smut. By 1932 over 150 farmers had federal seed loans, and several carloads of cracked corn and wheat were shipped in by the Red Cross for emergency feed. The county took one of many cost-cutting measures and discontinued the extension service on July 1, 1932. The years of 1933 and 1934 continued to be very dry. The following actual total production figures (not yield per acre) were recorded in the family Bible of a Monson

Township family: 27 A. wheat, 0 bu.; 55 A. oats, 59 bu.; 28 A. wheat, 15 bu.; 45 A. oats, 20 bu.; 12 A. barley, 0 bu.; 28 A. wheat, 42 bu.; 35 A. oats, 70 bu.; and 22 A. barley, 51 bu. — only the lowest areas were harvested.

March 8, 1933, was the birthdate of the Agricultural Adjustment Act (AAA), the result of the Great Depression and huge "dustbowl" conditions. The first AAA program was the wheat allotment. In 1934 wheat acreage in the county was reduced by 6,463 acres. The system started then is in use today, except that the township members at that time had a great deal more responsibility. There was also a corn-hog program during that time which controlled the number of acres of corn to be planted and the number of pigs a farmer could sell.

Experimental sugar beet production carried on in 1933 by 25 farmers showed that the soil was adaptable to producing large yields. The experiment was sponsored by the Wheaton Commercial Club. Beet

factories were paying \$5 a ton on the open market.

The drought years were especially difficult for anybody with livestock, and most farms were grain-livestock operations at that time. In 1933 farmers with insufficient feed to winter stock and without funds could apply for drought relief to the Traverse County Relief Committee. In 1934, 7,800 cattle were purchased by the government and shipped out. During the cattle movement the most shipped in one day was eighteen carloads. Prices paid varied from \$20 and down. Two hundred eighty-two sheep were also purchased at \$2 each. In an effort to save the breeding stock left in the county the farmers requested a county-wide Bangs and tuberculosis test. The Bangs test of the first 270 herds showed that 44.2 percent of the herds were infected (12.6 percent of the animals). Lack of feed in these years also caused breeding problems in cattle, and cholera damaged swine production. In April and May, 1935, 100 carloads of hay and straw, much of it poor quality, were shipped in. Seed was also

shipped in because the seed produced the previous year was very poor. The grain produced was so poor that very little qualified for storage in the first year of the federal grain storage program in 1935. The following year the soil conservation program got its start. It wasn't until 1937 that Traverse County farmers could again enjoy good crops, since moisture conditions started to improve in 1936-1937.

The start of large-scale tractor farming began in 1938 because of the epidemic of sleeping sickness in horses. Despite counseling to prevent loss of horses, the toll was very high. A vaccination program was tried but found to be ineffective. The Farm Security office, which was in Morris from 1935, was established in Wheaton in May, 1939, to serve Traverse County farmers. This was the forerunner of the present Farmers Home Administration office which remained in Wheaton until late 1978.

A major change in life on the farm occurred in 1941 with the completion of the first rural electrification lines. Meetings



Oscar Johanson covered the territory in his one-horse wagon, carrying on the job of census-taker. In the photo he is out taking the census in Redpath and Clifton Townships in 1910.

were held to encourage proper use of appliances and safe wiring for outbuildings. The greatest interest for many was the availability of home water systems to get away from the pump and the windmill and to modernize farm homes with running water and bathroom facilities.

With World War II declared December 7, 1941, ration boards were set up dealing with fuel, tires and machinery. Full production was encouraged on farms with "Food for Freedom" signs commonly found on elevators. With labor shortages, businessmen volunteered to help shock grain during the war years, many working several hundred hours over the four years of the war. German war prisoners were also used in harvest fields to shock and haul bundles or do other harvest work. They were based in Ortonville and usually were sent out only when several could be used in one locality. Milkweed pods were picked by school and youth groups to be used for life preservers, with more than 1700 bags collected in the county in 1944.

At this time insurance companies and

others who had acquired farms by foreclosure during the depression-drought era were advertising land for sale. Land sold for \$50-60 an acre. Metropolitan Life Insurance Company advertised land for sale with payments of \$60.00 per year for each \$1,000.00 owed. With a demand for farm products, better credit terms available, and improved prices for products produced, many farms were purchased at this time. In October, 1942, grain prices were \$1.34 for durum wheat, \$.65 for oats, \$1.00 for rye, \$1.10 for barley, \$.92 for corn, and \$2.80 for flax.

In 1944 Ceresan was being used for seed treatment to prevent seed diseases and produce stronger plants. Pasmio, a flax disease, affected most varieties grown at the time. Farmers were petitioning for Bangs testing of cows. Creeping jenny and leafy spurge were weeds on the hit list by the state weed department. There were 30-40 farm sales, some for labor reasons.

According to the 1945 farm census, 39 percent of the farm land was owned by the operators. The amount owed per acre on



A typical threshing scene near Wheaton, sometime prior to 1920, is shown on this picture postcard. Note the ladies beside the steam engine. Out in the field to bring lunch to the men, they appeared dressed more for a Sunday morning trip to church.

that land averaged \$10.96. In one township the average debt per acre was \$17.02, while the debt in three other townships averaged \$5-6 per acre. The maximum loan from the Farm Security Administration was \$2500.00. That year a new crop was catching on with over 1400 acres of soybeans harvested.

With the war over in 1945, by November 1 a total of 226 returning veterans had signed up for farm work or a farm loan. Fifty veterans signed up for vocational farm training under the G.I. Bill the next September with Douglas Peterson and Ralph Lauster as instructors.

The availability of smaller sprayers in 1948 made the effective use of 2-4D as a weed chemical in small grain profitable and a large increase in its use resulted in yield increases. The chemical had been listed for the first time as a weed spray for grains in 1946. Also in 1948 corn borers and blister beetles on soybeans caused enough damage to require control measures. Milk-house laws in Minnesota were being de-

veloped and creameries were encouraging milk coolers and bulk-tank systems. Flax acreage in 1948 was almost double that of wheat because of the farm program and the high price of flax (\$6.80 a bushel in January, 1948).

A very wet year was experienced in 1949 with between four and five thousand acres in the county not harvested because of wet conditions. A grasshopper infestation also occurred that year in the northern part of the county. A mixture of 50 percent kerosene and 50 percent 2-4D was used to spray leafy spurge. The Minnesota Valley Breeders Association formed with 171 members.

A very active group in the 1950's were the 4-H Clubs. As early as 1927 the first 4-H camp was held in the county, but members were exhibiting at the state fairs in the 1920's or earlier. Activity and membership peaked during a ten-year period commencing in the 1950's with the membership exceeding 450 members, mostly rural. In



John and Peter Elfstrom plowing in Lake Valley Township in 1912.

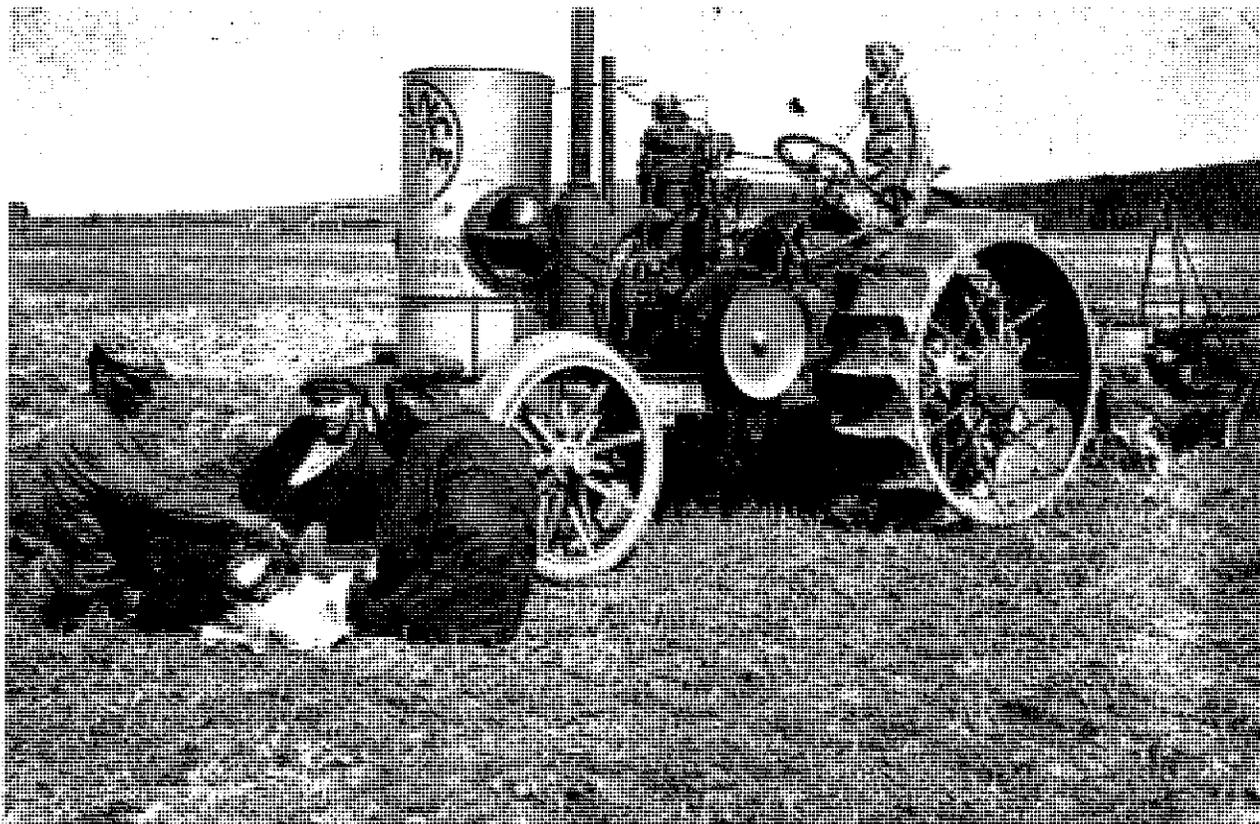
1951 the Traverse County Fair Association and the 4-H Federation completed a new 4-H building at the fairgrounds. While an active 4-H program has been carried out in the county over the years, the dwindling number of farm families is reflected in the 1985 membership, which stands at approximately 235, with 69 percent of those members rural children.

Farm crops are always subject to damage from weather, insects and weeds. In 1951 wild oats, mustard and foxtail seed in the crop seed being planted were predicted to do more damage than perennial weeds. In 1952 cutworms, cankerworms and webworms had to be controlled by Toxaphene and DDT. A rust epidemic in 1953 reduced wheat and oat yields, and in 1954 the worst army worm infestation for some time caused damage in oats and other lodged grain. In 1959 aphids did great damage to oats in much of the county, and wild sunflowers and kochia were listed as

the most damaging weeds by the county weed inspector. Sale of flax straw had become a big business, with ninety carloads of flax straw shipped to Winona in 1954.

Meantime farm machinery was becoming more modern. The first pull-type combines were in use in the 1930's, replacing the old threshing machines, and in the early 1940's self-propelled combines came into use, with Massey Harris first in the field. Heavy-duty John Deere two and three-plow tractors replaced models A and B in 1952, and a two-row self-propelled corn picker was being advertised in 1954. Along with the sunflower and sugar beet crops came special equipment for planting and harvesting.

Anhydrous fertilizer was used for the first time in 1954, with some poor results because of equipment failures. The use of all fertilizer was increasing rapidly, doubling between 1954 and 1956 due to the use



A typical scene during the early days of mechanization on farms. This trio of farmers takes a lunch break from plowing while a youngster has a chance to get behind the wheel. Note the big water tank for the steam engine tractor. Farmers on the photo are not identified, but the shot was taken in Redpath Township.



Taken in;
The late 1800's
or early 1900.

Judging day was a big day in Wheaton. That's the day when area farmers, competing in a wheat growing contest, would bring their production into Wheaton for comparison with all others. Farmers in the contest would be given one bushel of seed wheat in the spring. They would seed the wheat, harvest it, and then compete with others for production. Wheat was hauled into town in grain sacks stacked on wagons.

of soil tests which were required for ASC program practices and also the obvious higher yields on fields not cost-shared on government programs.

The first meeting of the Soil Conservation Service Board was held July 18, 1957, following a county election to approve its formation. This evolved as a result of a requirement that approval must be made before payments could be made for some ditching and cropping practices. The new Soil Conservation Office opened March 14, 1958, with Ward J. Aas as the Soil Conservationist.

In 1956 the Traverse County American Dairy Association was organized. Dairy production was changing rather rapidly due to milk-house laws and the cost of converting to facilities that would pass in-

spection. In 1955 there were 152 herds of dairy cows of ten head or more; in 1960 there were less than 50. A testing association was formed in June 1961.

The first county-wide meeting for sugar beet production was held February 9, 1961. Later in the spring the Traverse County Beet Development Association organized. It was later renamed the Western Minnesota Beet Development Association when interest in the Traverse County organization grew to a point where other counties became interested. Starting with sixty members, membership had grown to ninety-nine by late summer. A contract was secured and a forty-acre plot was planted on the Ray Frickman farm north of Wheaton. It was planted, hoed and thinned by Traverse County farmers, yielded close to ten ton per acre, and the beets were

hauled to Chaska. A local implement dealer had provided the planter. Two twenty-acre plots were planted in 1962. The first 100-acre sugar beet allotment went to Earl Davison of Tintah in 1967, establishing what has become a major crop in the northern half of the county with marketing done at a sugar beet factory located at Wahpeton, North Dakota.

Sunflower production started in the northern part of the county in 1968 and spread south. Sunflowers became a major crop for several years. By 1970 the dollar return from sunflowers was more than from soybeans, and in 1971 more than 8,000 acres were planted in this crop. Sunflower acreage had doubled by 1972, and by 1974 production neared 30,000 acres in Traverse County, one of the highest acreages per county in the state. Traverse County led the state in 1976 in sunflower production. The large concentration of one crop in one area resulted in insect and disease problems and led to a rapid decline in sunflower production in 1980. Today there are relatively few fields of sunflowers in the county. In 1973 the price of sunflowers on the market was \$7.75 cwt. Top prices ranged from \$20.00-24.00 cwt. and yields in excess of 3,000 pounds per acre were reported during the top production years.

Insects have continued to be a problem to our agriculture. In 1968 army worms invaded the county in August and damage was visible from the road in some areas. Serious grasshopper damage was reported in 1971, especially in wildlife areas because of lack of control. Thistle caterpillars and aphids were a menace in 1973, being especially damaging to soybean and sunflower fields.

Several large feed lots developed in the 1960's and continue today. This led to an emphasis on pollution control so that runoff from feed lots would not discharge into rivers and lakes.

Three farm organizations are presently active in the community, the Farm Bureau, Farmers Union, and National Farmers Organization (NFO). The Farm Bureau, organized here in about 1913, was the first county organization of the Farm Bureau established in Minnesota. Fred Lichtsinn was the first local Farm Bureau insurance

agent, a post now held by Jerry Schultz. In 1978 the Farm Bureau Women were organized. The Farmers Union has been organized in the county for many years, also. Only one local is still active, the Mustinka Farmers Union. The newest of the three is the NFO, which started here in 1963 and currently has a membership of about 100.

During the period 1975-1985 a great many changes in agriculture took place seemingly unnoticed. In 1978 the removal of the railroad through Wheaton was a great economic loss because truck movement of grain exceeds rail costs and is very wearing on roads. The size of farms increased rapidly in the 1970's, and large four-wheel drive tractors became a common sight in the field. Between 1978 and 1982 the average size of farms in Traverse County increased from 565 acres to 684 acres. Conversely, in the same period the number of farms decreased from 563 to 483. Between 1970 and 1980 the farm population went from 1,919 to 1,839 people.

Almost completed in 1985 is an in-depth, county-wide soil survey which has been jointly and equally financed by the county, state and federal governments. Basically a project of the Soil Conservation Service, the completed study should prove very valuable to farmers in determining fertilizer and other chemical needs, estimating crop yields, planning crop rotation, selling or buying land, spotting gravel deposits, and determining valuation of land for tax purposes and rental rates. The county's share of the project, which commenced in 1980, was \$110,000. The county was previously soil-mapped in the 1930's.

The adverse agricultural economy in the 1980's is having a direct effect on the sale of agricultural land and its price. Total farm sales went from eighteen tracts sold in 1984 to six in 1985. While bare land sales ranged from \$1,000 to \$1,300 an acre in 1984, prices had dropped to a range of \$750-800 an acre in 1985. Three of the six sales in 1985 were bare land sales and all three were located in the northern part of the county. This trend is expected to continue in the immediate future, reflecting the low prices being received for farm products on today's market versus the high cost of operations.