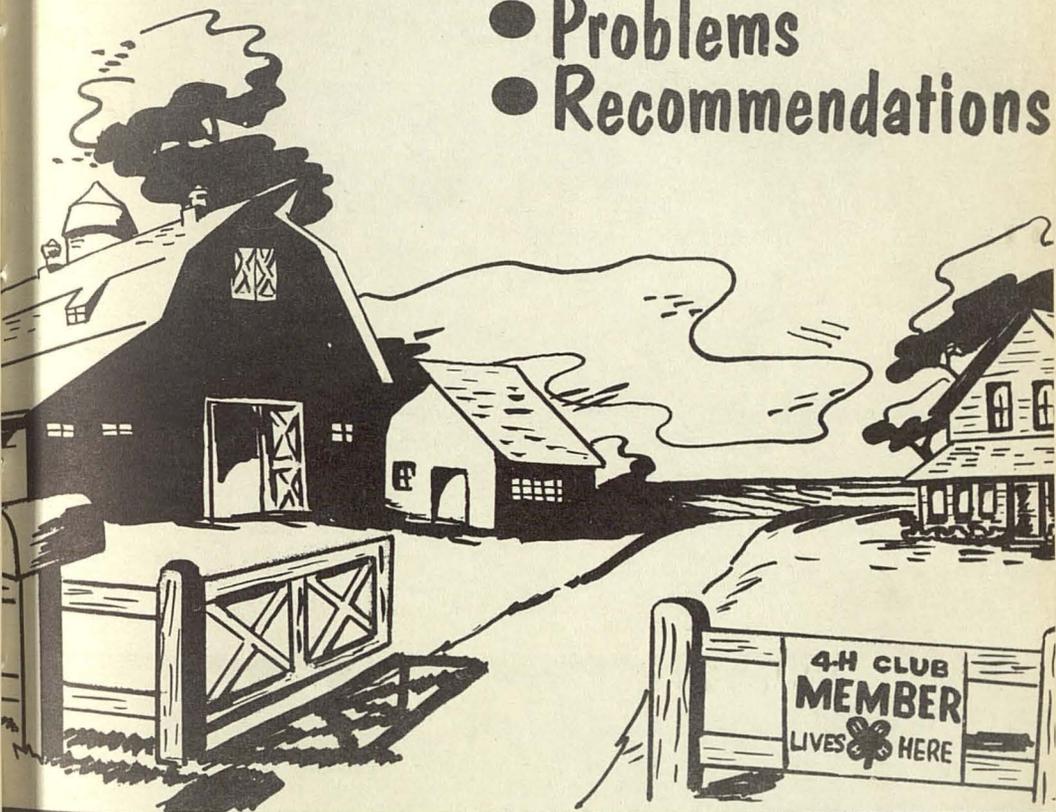


*Looking Ahead in*  
**Extension Work**  
*in*  
**Mille Lacs County**

- Situations
- Problems
- Recommendations



*Prepared Cooperatively by*  
**Mille Lacs County Extension**  
**Long Range Planning Committee**

Milaca, Minnesota

To the People of Mille Lacs County:

We are all grateful to the many people who contributed time and effort in developing this guide for county Extension work. It will assist in reaching the goal of better farms and improved family living for all areas of our county through agriculture, home, 4-H, and community work.

Your County Extension Service started in Mille Lacs County in 1918 with Vern Stewart as the first County Agent. The service was discontinued in 1923 and for the next 11 years there was no Extension program carried on in the county. In 1934, Lester Gilmore came to the county as an Emergency Agent. W. H. Turner was appointed as the first County 4-H Club Agent in 1933. The service has been maintained ever since to bring Mille Lacs County people information on changes and new practices in agriculture. Home-making information has been provided since 1944 with the employment of the first Home Demonstration Agent.

We live in a good county with ambitious people. It is our duty to use our resources wisely so that our people can enjoy a good standard of living. We are interested in the maintenance and improvement of our schools, churches, and other community institutions.

Our County Extension Office and Staff are equipped to help us in accomplishing our goals. As a citizen of this county you are urged to review this report carefully and cooperate in any way that will best serve you and your county.

Respectfully,

THE MILLE LACS COUNTY  
EXTENSION COMMITTEE

Reuben Johnson, chairman  
Bernard Swiderski  
Clem Haeg  
Arthur Harms

Albert Sundberg, secretary  
Otto Rick  
William Heidelberg  
Mrs. Oscar Loosen  
Leander

# Why This Report ---

The County Agricultural Extension Service - officially called the Cooperative Extension Service because the federal, state, and county governments all contribute to its support - is directed by the County Agricultural Extension Committee. This committee, made up of two county commissioners, the county auditor, and six farm men and women appointed by the county board of commissioners, plans the program and helps direct Extension work.

Since the Extension Service is a cooperative arrangement, County Extension Agents are members of the faculty of the University of Minnesota and the staff of the U. S. Department of Agriculture. The educational facilities of these institutions are available to county workers and financial support is provided by the County Extension Service through the University and the U. S. Department of Agriculture.

In view of the very great changes in agriculture in recent years, the Extension Committee, together with the County Extension Agents and representatives of the University of Minnesota, studied our county situation and Extension program to determine if it meets the needs of today.

This project to plan ahead for County Extension work was begun in February, 1956.

The following persons were directly associated with the planning process: County Commissioners Reuben Johnson, Bernard Swiderski, Henry Kunkel, Albert Olsen, and Maurice Herzing; County Extension Committee members Clem Haeg, Arthur Harms, William Heidelberg, Otto Rick, Mrs. Oscar Loosen, and Mrs. Arthur Leander; and University of Minnesota District Extension Supervisors Glenn McCleary and Minerva Jenson. The committees appointed to consider and report on specific areas are listed near the end of this report.

## COUNTY EXTENSION STAFF

Clayton E. Grabow, County Agricultural Agent; Nau-rine Higgins, County Home Agent; Elaine Lukazewski, County 4-H Assistant; Sonja Eggen, Office Secretary.

# COUNTY EXTENSION WORK

THE COUNTY EXTENSION COMMITTEE  
DETERMINES ANNUAL PLAN OF WORK

which is carried out by . . .



A TRAINED COUNTY STAFF  
MAKING CONTACTS  
with . . .



ORGANIZED GROUPS and INTERESTED INDIVIDUALS

in

THREE BROAD EDUCATIONAL AND  
SERVICE AREAS



FARM  
BUSINESS



COMMUNITY  
AFFAIRS



THE FAMILY

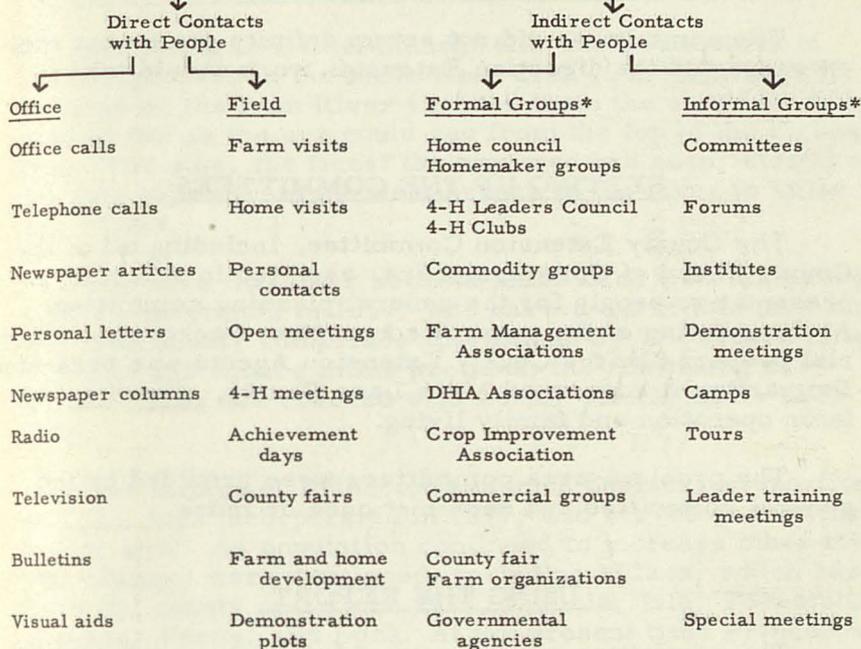
with the final goal of . . .

"A BETTER WAY OF LIFE FOR THE PEOPLE  
OF MILLE LACS COUNTY"

ALL COUNTY PEOPLE HAVE AN  
OPPORTUNITY TO TAKE PART  
IN PROGRAM PLANNING

County Extension Staff

Teaching Methods



To make the program truly meet local needs, the many cooperators were asked to assist in various capacities. This report of long-time program planning for Mille Lacs County covers a series of fact-considering meetings.

The committees did not set up definite goals, but rather suggested the direction Extension work should take in the county.

### SETTING UP THE COMMITTEES

The County Extension Committee, including all of the County Board of Commissioners, assisted in selecting representative people for the general planning committee. At the meeting of the general committee, background material prepared by the County Extension Agents was presented. Primarily, it concerned Mille Lacs County, covering both farm operation and family living.

The problem-area committees were provided by the general committee and each met once or more.

### USING THE REPORT

The committee sessions provided fairly clear evidence of needs for Extension education. A quite definite selection of fields of effort is shown by this report. This can be a very helpful guide in planning for several years.

# Farm and Home Situation

## HISTORY HIGHLIGHTS OF MILLE LACS COUNTY

According to Daniel Stanchfield, who led a party of early explorers in the Mille Lacs area in the fall of 1847, the pine on the Rum River reached from the shore on each side as far as the eye could see from the top of the highest tree. The pine, the finest the explorer had seen, stretched for fifty miles from the west branch of the river to Mille Lacs Lake.

The area that later became Mille Lacs County, by legislative enactment in 1857, was carved out of this pine forest. The county comprises approximately 700 square miles, of which 583 square miles are land; the remaining 117 square miles are covered with water, mainly Mille Lacs Lake.

The village of Princeton assumed business proportions in 1856, was incorporated in 1877, and served as the first county seat. As population continued to increase other towns and villages were developed, including Milaca, which has been the county seat since 1923, Onamia, Isle, Foreston, Wahkon, Pease, and Bock. At the present time Princeton, with a population in 1950 of 2, 108, is the largest town, followed by Milaca with 1, 917.

Lumbering was the most important business during the early years. However, some farming was reported as early as 1855 in the vicinity of Princeton, in the extreme southern part of the county. Farming gradually replaced lumbering in economic importance, first spreading into the townships adjacent to Princeton. By 1885 farming was pushing north into the townships of Bogus Brook, Borgholm, and Milaca. Some farms were also developed during this period in Isle Harbor, South Harbor, and East Side townships, all lying adjacent to Mille Lacs Lake. Agricultural development has been scattered and more recent in the rest of the county. Even now only about 60 percent of the land area in the county is in farms.

## POPULATION MAKEUP OF COUNTY

### Population

Population in the county increased rather slowly until about 1940, when it reached 15,558. Between 1940 and 1950 there was a decrease of about 400 people; since then it has been rising again, until in 1956 it was reported at more than 17,000. A significant change has taken place in the occupational composition of the population during the past 15 years. In 1940 farmers constituted 58 percent of the total population. By 1956 they constituted approximately one-third of the entire county population. The farm population declined quite substantially in numbers during this period.

The population is quite cosmopolitan in its background. The early settlers were mainly of native American stock, coming to the county from the Eastern states. At the present time farmers of Swedish and Norwegian ancestry predominate, but there are also considerable numbers of German and Dutch, and smaller numbers of Polish, French, Finnish, and Latvian descent. About 400 Indians live in Kathio Township along Mille Lacs Lake.

### Community Situation

The school system in Mille Lacs County has undergone substantial changes in the past 20 years. In 1955-56 records show that there were 34 rural schools operating as compared to 61 in 1935-36. At present there are four high schools in the county, well located geographically for both farm and town youth. Total school enrollment, including grades and high school, increased from 2,569 in 1934-35 to 4,353 in 1954-55. In 1950 the four high schools enrolled 84 percent of the 16- and 17-year-olds living in the county, as compared to only 60 percent in 1940. Three of the four high schools have vocational agriculture departments and all four have home economics programs. In addition to school activities, farm boys and girls have had an opportunity to participate in 4-H Club work. About one-third of the eligible farm youth enroll in this program each year.

The county is well supplied with churches of many denominations. It is fortunate in having three hospitals, located at Princeton, Milaca, and Onamia. There are eight medical doctors and seven dentists in the county. The county also employs a Public Health nurse.

Most of the industry and the business of the county is dependent on or related to agriculture. Cooperative creameries are operating in each of the communities except Wahkon. The Milaca Cooperative Creamery is one of the largest in the state from the standpoint of butterfat volume.

Railroads, busses, and truck service make for good transportation facilities for both out-shipment of commodities and livestock and in-shipment of goods. On the whole, highways are good, but there is room for improvement, especially of farm-to-market roads.

### Agricultural Situation

The year 1956 found 1,505 farms in the county, a decrease of 441 since 1950. They covered a total area of 193,232 acres and had an average size of 126.4 acres, as compared to 116 acres in 1950 and 98 acres in 1940. Mille Lacs is a county with a high proportion of owner-operators. According to the 1954 U. S. Census of Agriculture, 94 percent of the farmers were listed as full or part owners and only 6 percent as tenants. Between 1950 and 1954 the proportion of tenants declined from 6.9 percent to 6 percent of all farmers. The average value of land and buildings per acre increased from \$63.23 in 1950 to \$67.25 in 1954.

The southern half of the county and a four-to-five-mile strip along the southeast and east sides of Mille Lacs are the most fertile areas agriculturally. Dairy farming predominates in most areas as indicated in the following table, which lists the numbers of farms by type as shown in the U. S. Census of Agriculture for 1950 and 1954.

<u>Type of Farm</u>	<u>1954</u>	<u>1950</u>
Dairy	1,160	1,246
Livestock(other than dairy)	102	108
Poultry	60	42
Field crop	41	33
General (crop, livestock, crop and livestock)	71	135

As of 1954, 74.5 percent of the total cash receipts came from the sale of dairy products plus the sale of dairy cattle and calves. Of this 59 percent was from dairy products. The second-largest source of farm income was poultry and poultry products, accounting for 11 percent of cash farm receipts. Other sources of income were hogs and pigs, 7 percent; field crops, 6 percent; sheep, 1 percent; forest products, 1 percent; and miscellaneous items, 0.5 percent.

Hay and forage crops are the most valuable of the crops grown. In 1955 a total of 58,100 tons of hay was produced, for an average of 1.88 tons on 30,900 acres. Corn was raised on 23,700 acres with an average yield of 55 bushels, producing a record crop of 1,303,500 bushels. Next crop in importance is oats, which was raised on 21,400 acres in 1955. An average yield of 43 bushels produced a total of 920,200 bushels.

Soybeans were almost unknown in the county previous to 1945. In 1955, 2,500 acres were planted, and in 1956 more than 4,500 acres. This trend indicated an increasing interest in the crop and an outlook for a continued upsurge in plantings. Other field crops, such as rye, barley, wheat, and flax, are found in the county but are of minor importance. Potatoes, at one time a major crop in the county, have long since ceased to be of commercial importance, and now are grown mainly for home use.

### Climate

Mille Lacs County, together with the rest of Minnesota, has a continental climate, characterized by rather short, hot summers and long, cold winters. In most respects its

climatic conditions lie between the Minnesota extremes found respectively in the southern and northern parts of the state.

The mean temperature is 41.7°F., with the lowest monthly mean temperature of 9°F. in January and the highest mean of 69.7°F. in July. Precipitation averages about 25 inches annually, as compared to approximately 32 inches in the extreme southeast corner of the state and 20 inches in the northwest corner.

The average length of the growing season is 131 days, although there is considerable variation from one season to another. The average date of the last killing frost is May 16 and the first killing frost in the fall occurs about September 24.

### Soils

The soils of Mille Lacs County are typical of a considerable area in the southern and eastern section of the formerly pine-forested area of northeastern Minnesota.

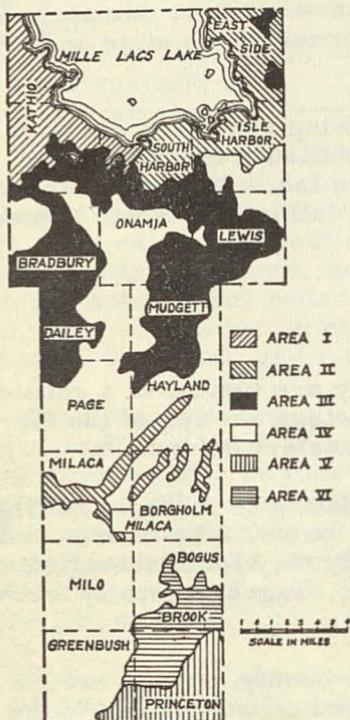
Topography ranges from undulating to strongly rolling. The soils vary from peat to sandy loams, clay loams, and loams, generally with clay or sandy clay loam subsoils. The inherent fertility of these soils ranges generally from fair to good.

In many places throughout the county, stones are numerous at and below the surface and constitute one of the handicaps to developing crop land. Many tree-covered peat bogs are interspersed with areas of mineral soil. The soils are generally acid. There are considerable areas of land that still are undeveloped for farming.

In 1954 the Mille Lacs County Soil Conservation District was organized. Its purpose is to provide a local organization through which landowners and renters may cooperate with each other and with federal, state, and local agencies to conserve soil moisture and fertility. The District includes all of Mille Lacs County except land used for purposes other than farming, and includes a total of 363,520 acres.

MAP SHOWING SOIL CONSERVATION PROBLEM AREAS IN THE DISTRICT

MAP SHOWING SOIL CONSERVATION PROBLEM AREAS IN THE DISTRICT



Area I -- Soils are dominantly light-colored sandy loams, underlain with sands and gravels, with minor areas of silt loam soils. Topography is hilly to rolling, with many potholes and small peat areas. Glacial stones and boulders are common. Problems in this area are water erosion and adequate crop rotations on the farmed areas, and forest management and use of forest products on timbered lands.

Area II -- Soils are predominantly light-colored, fine sandy loams and silt loams. Glacial stones and boulders are common. Topography is mainly rolling with some nearly level and some hilly areas, also many small ponds and peat areas. Water erosion control, proper land use, and drainage of the wet soils are problems in this area. Forest management is needed on the steeper wooded slopes.

Area III -- This area is dominantly wet peat land with little or no agricultural development. Because of climatic conditions, it is questionable if it would be economically sound to develop this area. The problem is one of proper land use. Part of the area has been purchased by the State Conservation Department for use as a wildlife refuge.

Area IV -- Soils are light to moderately dark-colored, very fine sandy loams, silt loams, and silty clay loams which cover over one-half of the land area in the District. Topography is gently sloping to rolling, with numerous nearly flat wet areas. Slopes are generally long and even. The problems in this area are water erosion on the long gentle

slopes, crop rotations to control soil loss, and the relatively impervious subsoil. Drainage is a problem on the more level wet mineral areas.

Area V -- Soils are generally sandy and light colored; some are deep fine sands, and some are fine sands underlain by finer material. Topography ranges from nearly level to rolling, with wind erosion, drouth, and crop rotations being the major problems. Water erosion is a problem on the steeper slopes.

Area VI -- Light-colored, nearly level to rolling silt loams and silty clay loams. The main problems are water erosion on the sloping lands, drainage on the flat wet areas, and crop rotations.



Land judging events like this help both our young people and adults learn more of Mille Lacs County soils.

## Farm Income and Living Conditions

Farm income in Mille Lacs County compares favorably with the counties in northeastern Minnesota, but is substantially below that for Minnesota as a whole. According to the U. S. Census of Agriculture for 1954, sales from farm products averaged \$2,743 per farm in comparison to \$5,920 per farm for all farms in Minnesota. Of the 1,725 farms shown in the 1954 census, 1,439 or about 85 percent were classified as commercial farms, with sales of farm products totaling \$250 or more.

The following table shows the income classification of the commercial farms for the years 1950 and 1954 as reported in the U. S. Census.

### . Sales of Farm Products--Commercial Farms, Milaca County, 1950 and 1954

<u>Class</u>	<u>Sales of Farm Products</u>	<u>Numbers</u>	
		<u>1954</u>	<u>1950</u>
I	\$25,000 or more	6	2
II	10,000 - 24,999	12	9
III	5,000 - 9,999	190	209
IV	2,500 - 4,999	581	697
V	1,200 - 2,499	475	479
VI	250 - 1,199	175	177

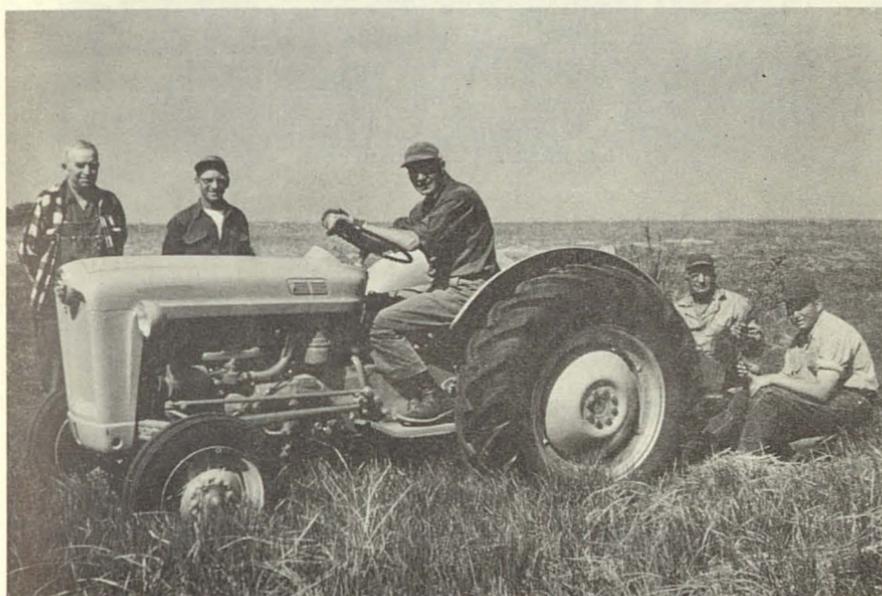
Living conditions in Mille Lacs County have shown a continued rise since 1930 but are still somewhat lower than the average for all of Minnesota. One indication of the changes in living conditions that have taken place in the last few years is an increase in the percentage of farmers who have electricity, from 70 percent in 1950 to 90 percent in 1954. In 1950 telephones were found on 59 percent of farms. By 1954 this had increased to 66 percent. Home freezers were found on 9 percent of the farms in 1950 and on 26 percent in 1954. Piped running water was on 44 percent of the farms in the county in 1954 as compared to 57 percent for all Minnesota farms.

# Committee Reports --

## LAND USE

### Situation

Mille Lacs County has a total area of nearly 700 square miles, of which about 117 square miles are water. Approximately 60 percent of the land area is in farms. In 1956 these farms covered a total of 193,232 acres. Approximately one-half of the land in farms is cropland, most of the balance being open pasture, woodland pasture, or non-pastured woodland. Mille Lacs County contains a high percentage of Class II land, which is quite productive when ready for cropping. A shortage of cropland of high productivity has limited income on many of the farms in the county.



Mille Lacs County has much land more suitable for growing trees than for any other use.

## Problems

1. Poor drainage on much of the partially productive land.
2. Large acreage with poor inherent fertility for cropping, much of which is fairly suitable for tree growth.
3. Rocks and stumps substantially handicap development of economic farm units.
4. Small use of fertilizer and of soil testing, although much is known about the use of fertilizers.
5. Too few farmers follow well-adapted rotations. Some farmers in the county do follow rotations that are well adapted, and which help to maintain an adequate soil fertility level, when combined with good fertilizer practices.
6. Lag in tree planting. It is generally recognized that there is land in the county which is better adapted to the growing of trees than for any other purpose. A start has been made in tree planting but a shortage of trees has been somewhat of a handicap in furthering this program as rapidly as desired.

## Recommendations for Extension

1. Assist in providing a basis for deciding what land to use for crops, including rotation pasture; permanent pasture; and trees.
2. Help farmers with economic methods of rock and stump removal where necessary to square up fields or provide economic farm units.
3. Carry on a soil-management program with special emphasis on soil testing; use of fertilizers based on soil tests; tillage methods; and suitable methods of drainage.
4. Encourage tree planting on land best adapted for forest purposes.

## CROPS

### Situation

Farmers in Mille Lacs County depend to a large extent on three crops, with a fourth one showing considerable promise. Hay is the most important crop in acreage, followed by corn and oats. Soybeans, almost unknown in the county before 1945, have shown sizeable increases in acreage during the past few years, going from approximately 2,500 acres in 1955 to more than 4,500 acres in 1956. Small acreages of barley, wheat, and flax are raised, but are of no commercial significance.

The index of crop yields for the county stands at 100, the Minnesota average, and the highest index for any north-east Minnesota county. The 10-year average yield per acre of corn was 39 bushels, four bushels under the state average and 16 bushels below the county average for 1955 and 1956. Oat yields have averaged 26 bushels, far below the average for the past two years. Forty-five percent of the total corn acreage is made into silage and much hay and some oats are also converted into silage. Most families depend greatly on the family garden for vegetables and some fruit.

### Problems

1. Much stony land makes harvesting of forage crops difficult.
2. Lack of soil fertility. This persists in spite of an increasing use of fertilizers.
3. Continued dependence on non-recommended varieties of crops by many farmers. This is especially true of oats.
4. Shortage of silage space on many farms.
5. Pastures, both rotational and permanent, are also producing less than their capability.
6. Reduced yields of garden and fruit crops because of lack of good crop sequences, spraying, pruning, and fertilizing.

## Recommendations for Extension

1. Assist in finding economical equipment for stone removal in pastures and fields.
2. Encourage farmers to use recommended varieties of crops.
3. Assist farmers to greater and more effective use of fertilizers to reach and maintain high fertility levels.
4. Acquaint farmers with advantages of suitable rotations, including hay crops in the rotations.
5. Encourage rotational grazing of pastures.
6. Campaign for improvement of pastures.
7. Encourage farmers to provide sufficient space for silage, and to make more use of hay and oat silage.
8. Place greater emphasis on selection of varieties and management of fruits and vegetables, especially those raised for home use.

## LIVESTOCK

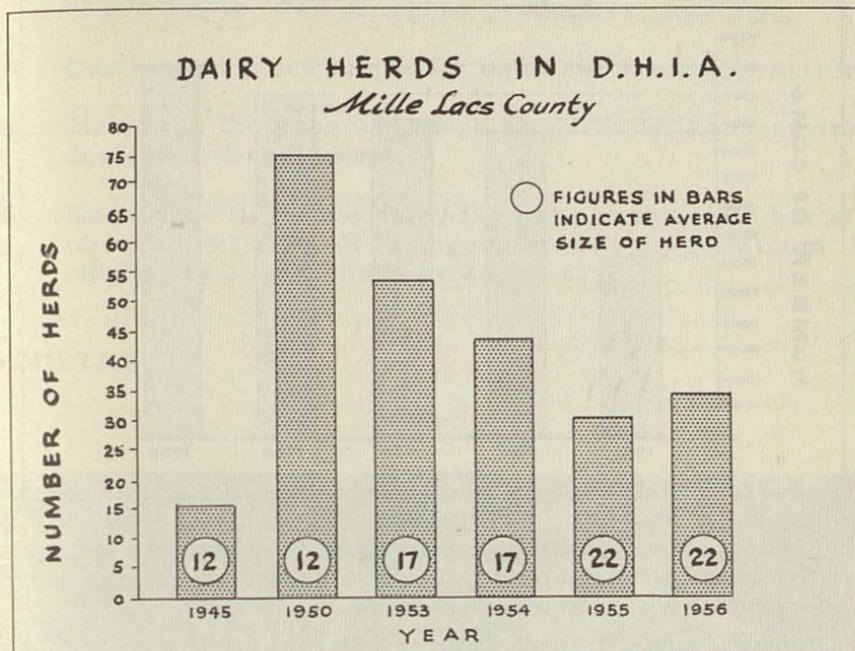
### DAIRY

#### Situation



Dairying is the major enterprise on most of Mille Lacs County farms, with practically 75 percent of total farm income from dairy cattle and dairy products. Generally the herds are quite small, with an average of approximately 12 milk cows per farm. Milk production per cow was reported to be 6,700 pounds per cow in 1956, up substantially from production of 6,100 pounds

in 1954 but considerably below the 7,900 pound production in one Minnesota county. Contrast this with an average of 9,610 pounds produced by the average herd in the Mille Lacs County D. H. I. A.

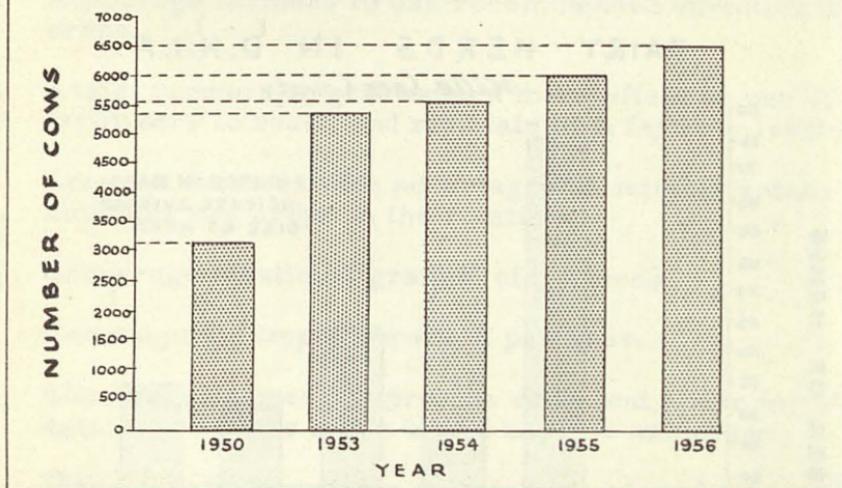


Relatively few herds are in Dairy Herd Improvement Associations. The top enrollment was in 1950 with 76 herds enrolled and an average of 12 cows per herd. A gradual drop in numbers of herds took place from 1951 to 1955. Recently the trend is improved with 34 herds enrolled in 1956 with an average of 22 cows per herd. The trend is toward larger but fewer dairy herds.

Artificial breeding has "grown of age" in the past six years in the county. In 1950 cows bred artificially numbered 3,200. By 1956 approximately 30 percent, or 6,500 cows, were bred in this manner. With the better techniques practiced in recent years the trend has been upward.

## NUMBER OF COWS BRED ARTIFICIALLY

### *Mille Lacs County*



Mille Lacs County has some advantages in dairying, but the committee also sees some disadvantages, the more important of which are listed below.

### Problems

1. Many herds are bred indiscriminately.
2. Few herd owners keep records of production on which to base a feeding and culling program.
3. Too little attention is paid to feeding.
4. Little attention is given to labor-saving equipment and methods.
5. Herds generally are too small.

### Recommendations for Extension

1. Give further attention to the use of production records as a basis for feeding and culling. Milk production per

cow should average 9,000 to 10,000 pounds, depending on the breed.

2. Encourage wider use of artificial breeding as a means of producing cows of higher productive capacity.
3. Continue to place emphasis on better feeding practices.
4. Include in the program more attention to labor-saving devices and equipment.
5. Encourage full-time dairy farmers to maintain herds of sufficient size. It is suggested that the minimum number in a dairy herd be 25 cows.

## POULTRY

### Situation



In 1954 poultry and poultry products were the second-largest source of farm income, providing about 11 percent of cash farm receipts. In spite of the importance of this enterprise it is recognized that there is much inefficiency and a narrow margin of profit on many farms. A small broiler-fryer plant is operating in Milaca. A high percentage of the birds are trucked in from outside the county.

### Problems

1. Small flocks of 50-100 are common.
2. Egg production averages substantially below that of the better flocks in the county.
3. Approximately 33 percent of the eggs marketed fall below Grade A, indicating a lack of quality production on many farms.
4. Many poultry houses are small and inadequate for flocks of profitable size.
5. Although feeding and management practices have shown general improvement in recent years, they still present a problem on many farms.
6. Lack of building facilities on most of the farms and credit problems appear to be "road blocks" in establishing the broiler-fryer enterprise on county farms.

### Recommendations for Extension

1. Encourage the keeping of flocks of adequate size for profitable production - 500 or more laying hens.
2. Encourage systematic culling as one phase of good management.
3. Emphasize good feeding practices.
4. Emphasize quality production and market demands through suitable methods, such as an Egg Institute.
5. Make assistance available in connection with the planning of new poultry houses and the remodeling of existing buildings for poultry production.
6. Work with bank officials in providing more adequate credit for broiler-fryer enterprises.

## HOGS

### Situation

Although hogs and pigs provided only 7 percent of farm receipts in 1954, they are of considerable importance on some farms and are of some significance on many farms.

### Problems

1. Prevalence of disease and parasites.
2. Inadequate pastures.
3. Small litters.
4. Production of too many lard-type hogs.

### Recommendations for Extension

1. Stress the raising of meat-type hogs.
2. Encourage approved sanitation and management practices.
3. Emphasize good breeding for profitable production.
4. Emphasize the importance of good pastures and how to obtain them.
5. Give further attention to good feeding practices.

## SHEEP

### Situation

The sheep population is small as compared to earlier years in the county, latest census reports showing only some 4,000-5,000 head. Wool incentive payments appear to be having a bearing on increasing the number of flocks as well as the size of flocks. Certain handicaps to profitable production are recognized.

## Problems

1. Use of poor-quality rams.
2. Sheep parasites.
3. Poor feeding and management on some farms.
4. Inadequate housing.

## Recommendations for Extension

1. Encourage the use of quality rams.
2. Give special emphasis to culling.
3. Emphasize the need for and methods to use in connection with control of parasites.
4. Bring to attention of sheep growers the need for adequate housing.

## MARKETING

### Situation

The marketing of dairy products received the greater emphasis, since 59 percent of the farm receipts come from the sale of dairy products. Local dairymen are producing milk for the manufactured milk market, receiving Grade B prices. We are competing with dairymen in the southern states who can produce dairy products more economically.

There are seven creameries in the county, all manufacturing butter except one, which is a receiving station for milk. The Isle Cooperative Creamery recently installed new spray-dry equipment. A Land O'Lakes milk drying plant, located in Milaca, collects skim milk from Land O'Lakes creameries in the area.

Several creameries have been considering Grade A. Some creameries in Minnesota are manufacturing 92-score

butter with evacuator process, using cream with more than 25 percent acidity. The majority of butter produced in the county is AA grade (93 score or better).

Eleven percent of the total cash farm receipts came from the sale of poultry products in 1954. This represents a 15 percent decrease percentage-wise since 1949. The principal egg markets in the county are the Land O'Lakes creameries at Milaca and Princeton. Huber's Produce, Pease, is a jobber of eggs which are sold on the Chicago market. Poultry producers in the Mille Lacs Lake area find a ready tourist market for their eggs in the summer months.

The percent of total cash farm receipts from hogs amounted to 7 in 1954, an increase of 1 from 1949. A number of pigs are sold on the little pig market at Little Falls.

One thousand, one hundred forty-nine of the 1,725 farms in the county have telephones. The farm-to-market roads showed the following changes from 1945-1954: Federal-State Aid +12 miles, county aid -9 miles, and township -149 miles.

### Problems

1. Milk-marketing orders in Eastern markets place our dairymen at a disadvantage.
2. Inadequate cooling of much marketed milk creates problems for local creameries at certain times of the year.
3. "Shall we convert to bulk handling?" This question is and will be confronting dairymen.
4. Operation of equipment for dry milk production presents problems.
5. Poor-quality eggs are marketed.
6. Poultrymen lack current marketing information.
7. Too many lard-type hogs are being marketed.

8. Many hogs are sold on a "low-price market."
9. Little pig market has some disadvantages for buyer and seller.

### Recommendations for Extension

1. Prepare educational material on good milking practices - exhibits, news stories.
2. Bring results of marketing studies to the attention of dairymen.
3. Carry out educational programs on producing quality milk and quality eggs through Farm and Home Institute or Egg Institute type of program.
4. Help provide more adequate market information.
5. Promote the production of meat-type hogs in the 4-H program as well as through adult groups.
6. Assist groups in working for improved farm-to-market roads.
7. Work with creameries and chamber of commerce groups in developing improved markets.

## FARM AND HOME MANAGEMENT

### Situation

The management of each home in Mille Lacs County calls for skills in anticipating expenses for food, clothing, utilities, savings, and insurance. There is also the question of purchased food versus home-produced and home-preserved food, as well as that of purchased versus home-made clothing. Quite a number of homemakers work part-time to supplement the family income.

A home survey showed that one-third of our homemakers do considerable sewing. Nearly all keep records

of some type. However, for the most part, the checkbook and a plain notebook are used.

A survey also showed that the average family cans 200 quarts of vegetables and fruits. Almost everyone depends on a family garden. Fifty-five percent of the families have an income of \$2,000 or less.

Fifty-nine percent of the rural population are in the age bracket 16-65 years. Forty-four percent of the family heads were 45-64 years old. Most of the farms are owned.

### Problems

1. Lack of farming opportunities for younger generation.
2. Lack of understanding of agricultural situations and trends.
3. Poor knowledge of budgeting food, clothing, and other costs.
4. Inadequate farm and home records.
5. Poor planning in processing foods.
6. Only 60 percent of students avail themselves of the schools' hot-lunch program.
7. Little regard given to farm and home safety on many farms.
8. Lack of good crop and livestock management plans.

### Recommendations for Extension

1. Work with Vocational Agriculture Department in providing farming opportunities for students having initiative.
2. Plan for providing information on agricultural policy through newspapers, meetings, and farm forums.
3. Provide for leader-training meetings on "money management and home accounts."

4. Encourage wider use of the Minnesota Farm Account Book.
5. Assist Homemakers and 4-H Club members in demonstrating the proper procedure in food processing.
6. Emphasize the value of hot lunches through health information presented at 4-H club and Homemakers' meetings.
7. Conduct farm and home safety campaigns among Homemakers and 4-H groups.

## FORESTRY

### Situation

Most of the land in the county was originally in native timber. The majestic stands of white pine and other species have gradually disappeared from the time of William Dunham's steam sawmill in 1856.

Much tax-forfeited land is to found which would be ideal for the planting of seedlings. Here and there one finds much



Thousands of maple trees are tapped for syrup each spring.

second-growth stands of timber. Interest in tree planting has shown a steady growth since 1951, when 38,000 trees were planted on farm land. A high point was reached in 1956, when 103 people planted 254,500 trees on private lands in the county.

Many acres of hard maple dot the landscape around Mille Lacs Lake. Thousands of trees are tapped for syrup purposes each spring. The industry includes quite a number of small family-size operations. This industry would seem to have a good future.

There are about a dozen sawmill operators in the county turning out wood products. Considerable timber is sold by local farmers to itinerant timber buyers.

Much fencing is being done on farms. As more land is planted to trees and pasture and other crop lands are made more productive, there will be a demand for good posts.

#### Problems

1. Too many woodlots being used for pasture.
2. Second-growth timber stands poorly managed.
3. Many farms lack shelterbelts or windbreaks.
4. Sale of much timber at a sacrificial price to itinerant timber buyers.
5. Variable quality of maple syrup produced by some operators.
6. Maple syrup processors lack a marketing organization.
7. Fences built with little regard to using treated posts.

#### Recommendations for Extension

1. Emphasize "Keeping Cows Out of Woods."
2. Work with State Forester in assisting farmers to develop individual forest-management plans.

3. Encourage tree planting and forest conservation through news articles, illustrated talks, and other media.
4. Work with State Forester in informing woodlot owners on how to make selective cuttings and acquainting them with proper valuation of trees in stand.
5. Work with Extension Forester in assisting maple syrup processors through meetings and individual contacts.
6. Emphasize post treating through mass media, demonstrations, and exhibits.

## EDUCATION

### Situation

As a county we rank 16th in 16- and 17-year-old youth attending school. This is well above the average for the state. Thirty-nine one-room rural schools are open at present. One or more years of college training has been completed by 3.5 percent of people over 24 years of age. This is well below the average for Minnesota, which is 5.9 percent.

Four high schools serve the county. They are located at Princeton, Milaca, Onamia, and Isle. In some instances teachers with below-average qualifications have been employed. This applies to both rural and town schools. One hundred thirty-one teachers are employed to teach 3,294 students in the schools of the county. Three schools maintain Vocational Agriculture Departments. The Milaca school has two Vocational Agriculture instructors and one Veterans' Agriculture teacher. The Isle and Princeton schools have one Vocational Agriculture instructor in each of the departments.

Five libraries are maintained in the county. Four of them are established in the high schools. One is located in the Milaca Village Hall and is maintained by the Civic Club. One-third of the boys and girls are enrolled in 4-H clubs. Three families are enrolled in farm and home development.

### Problems

1. Shortage of elementary teachers.
2. School financial problems relating to basic aids and appropriations.
3. Maintenance, building programs, equipment, and supplies.
4. Lack of facilities and equipment have handicapped capable teachers in some instances.
5. School drop-outs.
6. Poor parental support for 4-H Club program in several areas.
7. Need for additional Extension personnel to handle Farm and Home Development work and additional 4-H Club and Extension responsibilities.
8. Outside activities, including TV, vie for the time of adults who would otherwise be interested in adult education.

### Recommendations for Extension

1. Work with PTA groups in conducting educational programs, i. e., Farm and Home Safety, Agricultural Policy, etc.
2. Urge top 4-H Club members to consider teaching or Extension work as a profession.
3. Cooperate with vocational-guidance instructors in school career days.
4. Pass on research findings in rural sociology and education to schools, farmers' groups, and other organizations.
5. Stress value of a high-school education when speaking to 4-H Clubs and to other farm groups.

6. Plan and carry out effective and timely leader-training meetings in the 4-H Club program as well as the Home Extension Program.
7. Plan and carry out effective result demonstrations with field crops, fertilizer, and livestock.

## COMMUNITY SERVICE

### Situation

About one-third of the youth are reached in the 4-H Club program. A fair percentage of boys and girls are active in FFA, FHA, Boy Scouts, and other youth groups. There is no 4-H Club work carried on at present among the Mille Lacs Lake Indians.

Nutrition of school children is inadequate in some areas - 50 percent of children do not take hot lunch. TB incidence in human population in the county is above average. Brucellosis continues to be a problem among the dairy cattle. Health problems may be related.

Three hospitals are to be found in Princeton, Milaca, and Onamia, with a total capacity of 55 beds. Seven doctors of medicine and seven dentists are practicing in the county.

Library facilities, as explained under Education, are located in the various schools and in one instance in a Village Hall. Many TV programs watched by our children are sponsored by liquor and tobacco industries. Public welfare per capita has almost doubled in the last 10 years.

### Problems

1. Difficulty in obtaining local leaders for 4-H, Boy Scouts, and other youth organizations.
2. Lack of money to finance projects for Indian children who could be in 4-H.
3. Failure of a great percentage of homemakers to pasteurize milk produced on the farm.

4. Cases of undulant fever because some farm operators fail to dispose of brucellosis reactors.
5. Need for greater hospital facilities.
6. Inability of low-income families to afford hot lunches for school children.
7. County tax income is being forced to assume more of the load of the welfare program, though program is very adequately administered.
8. More comic books than good library books are being read.

#### Recommendations for Extension

1. Carry on a stimulating 4-H Club program throughout the county.
2. Help develop ways to finance 4-H Club work among Indian children.
3. Carry out an educational program through demonstrations, exhibits, and other media in the Home Program on Home Milk Pasteurization.
4. Continue educational work on brucellosis control through newspapers, creamery meetings, and other groups.
5. Help low-income families improve net income through following better methods, culling low-producing livestock, and finding added source of income.
6. Assist in developing better library facilities.
7. Assist in publicizing educational TV programs.

# Summary

The recommendations included in this report will serve as a guide for the Extension annual program for several years. A summary of the general recommendations which will be stressed by Extension follows:

## Land Use

1. Help land owners to decide what land to use for pasture, forage crops, and trees.
2. Assist in a program to provide more economic farm units through a stump-testing and rock-removal program.
3. Emphasize especially soil testing and fertilizer use.
4. Refer drainage problems to Mille Lacs County Soil District.

## Crops

1. Encourage farmers to use recommended varieties.
2. Help farmers to use the fertilizer applied more effectively.
3. Acquaint farmers with advantages of suitable rotations, including hay crops.
4. Demonstrate the value of rotational grazing and improving pastures through demonstrations.
5. Stress the use of grass, legume, and oat crops for silage.
6. Place emphasis on selection of varieties of fruits and vegetables grown in home gardens.

## Livestock

1. Encourage dairymen to enroll in some form of production testing.
2. Advocate the use of artificial breeding in all dairy herds.
3. Place emphasis on better feeding practices.
4. Include a program, giving more attention to labor-saving devices and equipment.
5. Encourage dairymen to keep a herd of at least 25 cows, using a butterfat or milk record in arriving at number.
6. Recommend that a poultry flock be at least 500 hens.
7. Help to improve quality eggs and good feeding and management practices through institute programs.
8. Provide specialist help to poultrymen planning remodeling of existing buildings.
9. Stress the raising of meat-type hogs.
10. Emphasize the importance of good hog pasture and approved feeding practices.
11. Encourage the use of quality rams.
12. Provide specialist help in sheep management.

## Marketing

1. Encourage good milking practices through exhibits, slides, and news stories.
2. Provide results of marketing studies for dairymen and general livestock producers.
3. Carry out educational program on quality milk and quality egg production.
4. Help to provide more adequate market information.

5. Promote the production of meat-type hogs.
6. Assist in working for improved farm-market roads.
7. Help in developing better markets for farm products.

#### Farm and Home Management

1. Work with Vocational Agriculture Departments in providing farming opportunities.
2. Provide agricultural policy information through newspapers, meetings, and forums.
3. Arrange for training meetings in money management.
4. Encourage wider use of the Minnesota Farm Account Book.
5. Assist Homemakers and 4-H Club members enrolled in food preservation in demonstrating the proper food-processing procedures.
6. Emphasize the value of hot lunches.
7. Conduct farm and home safety campaigns.

#### Forestry

1. Emphasize keeping cows out of the woods.
2. Develop, with the help of the forester, individual forest management plans and help land owners with selective cutting program.
3. Encourage tree planting.
4. Assist maple syrup producers through meetings, visits, and news articles.
5. Emphasize post treating through mass media.

#### Education

1. Work with PTA groups - farm and home safety, agricultural policy, etc.
2. Encourage top 4-H club members to consider Extension work or teaching as career.
3. Cooperate with vocational guidance instructor in conducting career days.
4. Pass on research findings in rural sociology.
5. Plan and carry out effective demonstrations with crops, fertilizer, and live-stock.

#### Community Service

1. Carry on a stimulating 4-H club program.
2. Carry out a program of demonstrations, exhibits, and news articles on home milk pasteurization.
3. Help low-income families improve their incomes.
4. Assist in developing better library facilities.
5. Publicize educational TV programs.

# Committees

<u>Committee</u>	<u>Chairman</u>	<u>Members</u>
Land Use	William Kalton	Chester Judd, Co-Chairman Clem Haeg Beryl Frost Frank Stalker Mrs. Floyd Muller
Crops	Abdon Peterson	Fred Timmer, Co-Chairman Maurice Herzing Eldon Johnson Mrs. Martin Paul Clarence Swedin
Livestock	Bernard Pearson	Loren Trunk, Co-Chairman Ben Casper Mrs. R. C. Larson Elmer Warolin
Marketing	Don Larson	Ted Musielewicz, Co-Chairman Otto Rick LeRoy Robinson Mrs. Vern Ablard Don Christensen George Grant
Forestry	Charles Benzie	Richard McKinney, Co-Chairman Henry Kunkel Carl Boquist Harold Lyback H. H. Lemke
Farm and Home Management	Mrs. A. Henry Anderson	Elvin Andrews, Co-Chairman Maurice Bergstrom Mrs. L. C. Idstrom Mrs. Al. Sorenson Mrs. Joe Horgen
Education	Albert Kurre	Thomas Nichols, Co-Chairman Oscar D. Berg Mrs. Arthur Leander Mrs. Gunnar Benson The Reverend William Hegge, Crosier Seminary
Community Service	Mrs. Marie Kapsner	Mrs. Harry Jacobson, Co-Chairman Jack Appenzellar Rolf Olson Grace Remus James Fish