

Looking Ahead in

EXTENSION WORK

in Lyon County

out 2-12-57

- **Situations**
- **Problems**
- **Recommendations**



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Prepared by

Lyon County Extension

Long Range Planning Committee

LYON COUNTY EXTENSION SERVICE LONG-TIME PROGRAM PLANNING

The agricultural and home data in this folder were compiled from many sources. However, the main sources are: --- "The History of Lyon County" by: A. P. Rose, Minnesota Agricultural Statistics, and The United States Census of Agriculture. County information was gathered by questionnaires sent to people that were familiar with the community.

This information was used in assisting committees with long-time program planning for the county.

The committee members are listed in this folder along with their reports and recommendations on program planning.

Special credit is due to the efforts of Miss Julieanne Princen, office secretary.

Raymond J. Reuell

AGRICULTURAL AGENT

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 in the county by the county Agricultural Extension Committee. This committee, made up of two county commissioners, the county auditor, and six members (farm men and women) appointed by the county board of commissioners, plans the programs and helps direct Extension work. Each year it has met with the county Extension agents and a group of farm people to review the past year's program and to plan next year's program.

In view of the very significant changes in agriculture in the past 10 years, the county Extension Committee, working with the county agents and representatives of the University of Minnesota, decided to study our county situation and Extension program to see if it meets the needs of today.

The committee decided to do a more extensive job of planning about every five years, looking ahead as to the direction the program should take. This would give more continuity to the Extension program and would simplify the yearly preparation of plans of work.

With this in mind, each member of the Extension Committee selected 8 farm people from his commissioner's district. These people were called upon to attend a general over-all program planning meeting early in 1956 at which statistical data pertaining to agriculture, home, and youth were presented. The group next discussed the question, "What Do You Consider To Be The Needs Of Lyon County Farm Families--Present and Future?"

After summarizing the ideas brought out, it was decided that Extension workers should put more emphasis on the following five major fields: youth, farm and home management, livestock, conservation, and methods of bringing information to farm people. Committees were set up for each field and a chairman and co-chairman were nominated. Their job was to obtain 6 to 8 farm people who would assist with a phase of the long-time Extension program plan. (See lists of committees at end of this report.)

The recommendations and suggestions of these committees as they worked out in 1956 are included in this report. They will be used as a guide for the County Extension Committee in planning the County Extension program and in preparing yearly plans of work.

Farm and Home Situation

BRIEF HISTORY OF LYON COUNTY

Before Lyon County was organized, it formed a part of Wabasha, Blue Earth, Brown, and Redwood Counties. After these counties were formed, Lyon County, in 1865, became part of Redwood County. In 1869, Lyon County came into existence, and, at that time, it included the present county of Lincoln. The bill for the creation of Lincoln County passed the Legislature in the Spring of 1873, thus leaving Lyon County as it is today, with 20 townships. The year 1873 also saw the change of the county seat from Lynd to Marshall.

The first white man, a trader, settled in Lyon County in 1835. After the close of the Civil War and the subjugation of the Indians, there was a great tide of immigration to the western country. The fertile lands in this area brought many homesteaders, the first in 1866. Agriculture developed very slowly in the early days.

In 1872 when Lincoln and Lyon Counties were still one county, only 676 acres of land (a little more than one section) was planted to crop. Of these, 342 acres were in wheat, 98 in oats, 167 in corn, 6 in barley, 13 in buckwheat, 45 in potatoes, and 5 in beans. From this acreage, 6,690 bushels of wheat, 3,889 of oats, 5,274 of corn, 165 of barley, 3,651 of potatoes, and 88 of beans were produced. Wild hay cut that year amounted to 2,574 tons. The dairy products consisted of 7,166 pounds of butter and 4,850 pounds of cheese.

In 1872, according to the assessors' figures, there were less than 500 head of cattle and only 90 sheep in the county. Agriculture became much more important with the opening of the railroad in 1873. This brought hundreds of new settlers to Lyon County. The county grew rapidly from 268 in 1870 to 2,543 in 1875; 6,257 in 1880; 7,978 in 1885; 12,425 in 1895; 15,722 in 1910; 21,569 in 1940; and 22,253 in 1950. In 80 years the population has increased 20 times.

Nationally, it is expected that there will be a 17 percent increase in population from 1950 to 1965. The increase will

not be this great in Lyon County, but, no doubt, it will increase because of Lyon County's agricultural importance and geographic location.

Land was continually being broken for agricultural purposes as shown in the table below:

Acres of Major Crops Harvested, Lyon County, 1872-1955

Year	Wheat	Oats	Corn	Barley	Soy-beans	Flax	Total acres of major crops
1872	342	98	167	6			613
1879	27,377	6,248	2,379	659			36,663
1883	26,307	13,110	3,541	2,210			45,168
1940	15,100	75,200	111,600	55,300	500*	50,300	308,000
1950	4,850	84,000	134,700	27,000	5,300	50,300	306,150
1954	1,530	102,000	149,700	8,300	20,600	35,900	318,030
1955	570	89,200	156,900	7,200	26,800	35,500	316,170

* 1941 figures.

Over the years crop production in Lyon County has shifted greatly. Wheat acreage has continually decreased, whereas, corn has continually increased. Soybeans have become increasingly important since 1940; new varieties and better production methods have made soybeans an important cash crop. Other small grain production has decreased.

Changes in cropping systems are due to many reasons including prices, continued poor yields, new and improved varieties, government supports, and all around improved farming methods which enabled farmers to produce some crops more efficiently than others.

In addition to the changes in crops, there has been an increase in cropland acres. At present there are 441,000

acres available as cropland in Lyon County.

Livestock numbers increase steadily as Lyon County becomes important in agriculture. For example, in 1925 there were 43,400 head of cattle (including cows and heifers for milk), while on January 1, 1956 there were 64,700 head. The county ranks among the top 10 in the state in livestock numbers.

MAKEUP OF LYON COUNTY

Population

The total population in Lyon County has increased very rapidly over the years. Rural farm population increased steadily up to about 1940. From that time on, there has been a slow migration of rural population to towns and cities. People were seeking positions in war factories and other industries, as was noted by the sharp increase in total industrial output.

The 1950 Census listed the total population of Lyon County as 22,253. Of this, approximately 37 percent was rural farm. The number of foreign born was 1,332. Lyon differs from surrounding counties in percentage of rural farm population. Lincoln has 61 percent, Redwood 50 percent, Yellow Medicine 53 percent, and Murray County 62 percent rural farm population.

Number, Size of Farms

With the decrease in rural farm population, the total number of farms in the county decreased. In 1944, there were 2,027 farms; in 1949, 1,945; and in 1954, 1,911.

For the past few years, there has been little variation in total acres of farm land. Agricultural land was taken for the expansion of towns and villages, but at the same time, new land was made available to agriculture by clearing and drainage. In 1954, 96.6 percent of the total land area (456,320) was in farms. This points out the importance of

agriculture to Lyon County in comparison with the state. The state average proportion of total land area in farms is 63 percent.

Community Facilities

There are 15 villages and towns in Lyon County. The community facilities are good in the following respects: health, young people's groups, womens' groups, farm organizations, and industry and business as they relate to agriculture.

Health facilities include a 54-bed hospital in Marshall, a 36-bed hospital at Tracy, plus a 16-bed clinic. In addition, there are 14 dentists and 13 physicians and surgeons serving the community.

There are 20 grade schools and 8 high schools. Due to consolidation, "the old country school" is a thing of the past. There are only four ungraded elementary schools in Lyon County. There are four FFA and 5 FHA groups in the county.

There are 19 organized 4-H clubs, with a total membership of 551. These 4-H groups are under the supervision of the County and State Extension Service.

Recreation facilities for youth consist of roller rinks, 8 theaters, bowling alleys in some of the towns, and several ball diamonds. Two of the towns have swimming pools; others use lake facilities for swimming lessons. There is one state park, Camden State Park, located in the heart of the county plus several city and roadside park areas that are used heavily in the picnic season.

There are 32 clubs with a total membership of 452 women enrolled in the Home Program. These clubs offer an opportunity for adult educational work to the farm and urban families.

Churches play a very important role in community development. There are 48 churches (6 are country churches) representing almost all denominations.

There are two farm organizations, Farmers Union and Farm Bureau. These groups have great social and educational value. Members are interested in new things in agriculture and home, and so the organizations are wonderful outlets for educational information.

The Lyon County Agricultural Society makes up the Fair Board members. The Fair Board is cooperative in bringing an excellent fair to county people and is especially interested in the agricultural phase.

The Lyon-Lincoln Dairy Herd Improvement Association serves 25 farmer members (490 head of cattle): 17 members are located in Lyon County. Six technicians with the Minnesota Valley Artificial Breeders Association service approximately 550 herds (4,200 head). Their areas are plated to facilitate members in telephoning for service. Only one technician has all of his work in the county, the others carry on a good share of their work in neighboring counties. As yet dairy herds make up almost all of the herds service. There are 10 veterinarians that service the many livestock feeders and breeders in the county.

Commercial and Marketing Facilities

There are nine banks within the county plus 12 loan agencies as places for possible credit.

The county is well supplied with grain elevators (24). Most of these are dealers in farm chemicals, fertilizers, seeds, and feeds. Besides the many elevators that handle fertilizer there are two fertilizer plants in the county. One recently formed is a blending plant, while the other contemplates setting up a blending process. There are two concerns that have fairly large storage capacity for anhydrous ammonia and one that has a storage capacity of the 41 percent nitrogen solutions. There are many sub-dealers in the county that have taken on the application business for anhydrous ammonia (82.5 percent nitrogen) and nitrogen solutions.

Lumber for construction of farm buildings and homes is available through 18 lumber yards.

There are 30 implement dealers, plus many dealers that only handle a few minor farm repairs and machines.

There are 21 creameries and produce stations that receive and/or pick up farm operators' eggs, cream, and poultry produce. There are 7 firms that deal mainly with dairy products and also 8 hatcheries in the county.

One seed dealer has a plant that is approved by the Minnesota Crop Improvement Association for cleaning certified seed. Twenty-two members are enrolled in the Lyon County Crop Improvement Association and grow registered and certified grains. The board of directors and the agricultural agent make up the distribution committee for the allocation of registered and certified seed to eligible growers. The Extension Service assists the organization in setting up small grain observation plots each year. They are very active in planning the annual crop show and a booth at the County Fair.

Since Lyon County is an important livestock area, there are several buyers representing associations that visit Lyon County frequently and have set up contacts with many of the feeders. There is usually a trucker or a representative for a concern that keeps close contact with the feeders in this area for the key men. A very small number of buyers deal directly with the farmer. Most barter and advise for their organization, with the final cash payment coming when the livestock is delivered at the market.

There are 6 firms that are in the dead animal remover services. One is a processing plant in Marshall.

Several oil companies are represented by gas and bulk stations.

The people of the county seeking information as to the many laws can obtain assistance from 22 attorneys representing 17 different firms.

Nine real estate firms are in business throughout the county dealing in farms and homes.

Communications, Transportation

Communication and transportation facilities are good. There are 7 newspapers in the county, one daily, 5 weeklies,

and one weekly sub-division. There is one radio station, plus telegraph offices and telephone systems throughout the county. In 1954, 76 percent of the farms in Lyon County had telephones.

The Great Northern and the Chicago North Western Railroads serve the county. Bus service is available at many points, enabling people to reach larger cities. There are two airports, one for small passenger planes for the local area plus one municipal airport that services twin engine aircraft. The county has a good network of highways, including:

County roads -- 103.4 miles bituminous and 371 miles of gravel (1 unimproved).

Township roads -- 676 miles of gravel (30 unimproved).

U. S. and State highways -- Nos. 14, 59, 19, 91, 68, and 23--142.4 miles (.8 miles gravel).

Size of Farms

The size of farms in Lyon County according to the Minnesota Census of Agriculture has fluctuated somewhat in the past 10 years as shown here:

<u>Size</u>	<u>1944</u>	<u>1949</u>	<u>1954</u>	
Under 30 acres.....	163	95	106	} (11.5%)
30 to 99.....	123	138	117	
100 to 179 acres.....	617	591	542	(28.3%)
180 to 259 acres.....	486	518	500	(26.2%)
260 to 499 acres.....	583	548	583	(30.5%)
500 and over.....	55	55	63	(3.5%)
Average size farm (acres).....	220	225	231	

These figures show there is a slight increase in 260-499 acre farms and a very small increase in farms of 500 acres or more. At the same time there is a decrease in the number of farms that are from 100 to 259 acres. There is a

quite clear trend for farms to become larger, but on a percentage basis, this trend is not happening fast.

This county has the largest average size farm (231 acres) in the southern third of the state. The farms also have the largest average amount of cropland acres.

Type of Farms

There are few specialized farms in the county, according to the Minnesota Census of Agriculture. The type of farm given below was determined by whether the sales or anticipated sales of a product or a group of products had represented 50 percent or more of the total value of products sold. Thirty-nine percent of the farms were cash grain and 38 percent were livestock farms other than dairy or poultry. The types included these:

	<u>1949</u>	<u>1954</u>
Cash grain	662	753
Other field crops.....	5	-
Dairy farms.....	14	15
Poultry farms.....	24	35
Livestock farms other than dairy and poultry.....	740	724
General farms.....	435	310
Miscellaneous.....	60	85

Tenancy

In Minnesota the percentage of owner-operated farms is perhaps somewhat higher than one would expect. In 1954 only one-fifth of all farms were operated by tenants. A somewhat different situation prevails in Lyon and surrounding counties. In Lyon County in 1950, 44.7 percent of the farms were operated by tenants, and in 1954, 46.3 percent. Eight counties in the area have over 40 percent of the farms tenant operated.

Value of Farm Products

In 1954 the total value of all farm products sold in Lyon County was \$18,379,048.00. This was \$839,955.00 more than in 1950. Even though sales have been greater, net income has been less because of high expenses. Farmers must cut down expenses on such items as labor and unjustified equipment. However, expenses cannot be cut to the point of practicing false economy, thereby sacrificing economy of production.

Farm income has been supplemented by more earnings from off-the-farm jobs. In 1940, 15 percent of the farm operators worked 100 days or more off the home farm, in 1950 there were 23 percent in this category. In Lyon County (1940) only 65 operators worked 100 days or more off the farm, whereas in 1954 the total was 126 operators.

Of the total amount of products sold in 1954 approximately 39 percent of it was from the sale of crops (about 51 percent of this total was from the sale of corn); 5 percent dairy products; and 6 percent from poultry and poultry products (89 percent from sale of eggs). Livestock and livestock products, other than dairy and poultry products, made up the remaining 50 percent of the total farm income. Of this, 22 percent was from the sale of hogs and 2 percent from the sale of sheep, lambs, and wool. This points out that feeder cattle and swine are very important to Lyon County.

Land Values

The average value of land and buildings per farm in 1954 for the county was \$33,700.00, and the average per acre was \$140.00 compared to \$118.00 in 1950. This amount is considerably smaller on a per acre basis when comparing it to surrounding counties because of the larger average farm size--231 acres.

Soils

There are several different soils in the county, some needing more careful management than others to get the most efficient production from them.

Many of the soils are highly alkaline, and drainage is a problem on 15 percent of the land.

Additional plant food has become necessary because of continued farming operations. Farmers have become aware of these problems, and some of them have perfected a systematic rotation and fertilizer program.

Plant food needs, alkali, or acid conditions of the soils in the county may fairly well be shown in the following figures. These figures were based on 253 soil samples from Lyon County farmers received by the University of Minnesota Soil testing laboratory from July 1, 1954 to December 31, 1955.

<u>pH test</u>	<u>Percentage of samples</u>
Less than 5.5-----	0
5.5 to 6.2-----	21.7
6.3 to 6.9-----	25.3
7.0 to 7.4-----	20.2
More than 7.4-----	32.8

Available Phosphorus
(pounds per acre)

0 to 10 Low and very low-----	35.3
11 to 20 Medium-----	38.3
21 to 30 High-----	13.0
More than 30--very high-----	13.4

Exchangeable Potassium
(pounds per acre)

0 to 90 Low and very low-----	0
91 to 220 Medium-----	26.1
221 to 260 High-----	17.8
More than 260 very high-----	56.1

Seventy-four percent of these samples were high to very high in available potassium. Seventy-three and a half percent of the above samples showed medium to low and very low in available phosphorus per acre, pointing out that phosphate fertilizers in general are more important than potash fertilizers.

Twenty-two percent of the samples showed a pH of 6.3 or less, which means an acid condition. pH 7 is neutral and anything above pH 7 is classified as alkali. Most of the soils in the county are well supplied with calcium (lime). However, in some cases the lime has leached from the top soil, thus showing an acid condition. Most of the crops prefer a slightly acid soil, but when the acidity is too severe it is sometimes difficult to establish stands of legumes and get good growth on other crops. In this case, lime is needed.

Water

A few farmers have perfected methods for top crop production. In these cases rainfall has become a limiting factor for increased production. Average rainfall for the area is 23 to 24 inches.

Water and wind erosion are problems in certain areas also. Some farms, larger towns, and cities in the south western area have been threatened with water shortages. At the time of the writing, the city officials of Marshall and the County Commissioners have cooperated in hiring government officials to investigate the water supplies in the county. They should be commended for their foresight on such a project. There is no report at this time.

Two farmers in the county are known to have irrigated crops with success, one garden vegetables, and the other farm crops.

Level of Living

The farm operator's family level of living index for Minnesota counties is based on percentage of farms with electricity, telephones, automobiles, and average value of products sold or traded in the years preceding the Census. In 1950 only 10 counties in the state of Minnesota rated higher than Lyon County in level of living.

Seventy-six percent of the farm homes have telephones and 97 percent have electricity. Approximately 34 percent have private toilet, bath, and hot running water. Fifty-four

percent have piped running water. Landlords seem to be more cooperative on this score. However, in some cases tenants are paying these expenses for their own convenience.

Farm families are much more aware of conveniences and laborsaving devices for the whole farm operation, especially in the home. Many farm homes have new ranges, refrigerators, washers, clothes driers, and freezers. About one-sixth of the farms had freezers in 1950. Forty-one percent of the farms had freezers in 1954.

Twenty percent of the farm families in Lyon County now have television.

There are still many homes in the county with a long way to go in making home improvements. This is especially true on tenant-operated farms where facilities are lacking.

Farm families purchase the larger share on their clothing--about 10 to 20 percent of it is being made in the home, a greater share of this being the women's and children's clothing. Farm people are very interested in the new textiles that are available on the market.

Education

Lyon County farm families are aware of the needs of continued education for their boys and girls. In 1950 the county ranked 28th in the state in 16- and 17-year-old boys and girls in school with 81 percent enrolled. In 1940 the county had ranked 31st in the state with only 66½ percent enrolled in school. With the complexity of farming as it is today more agricultural education and information is needed especially by the young farm family operators.

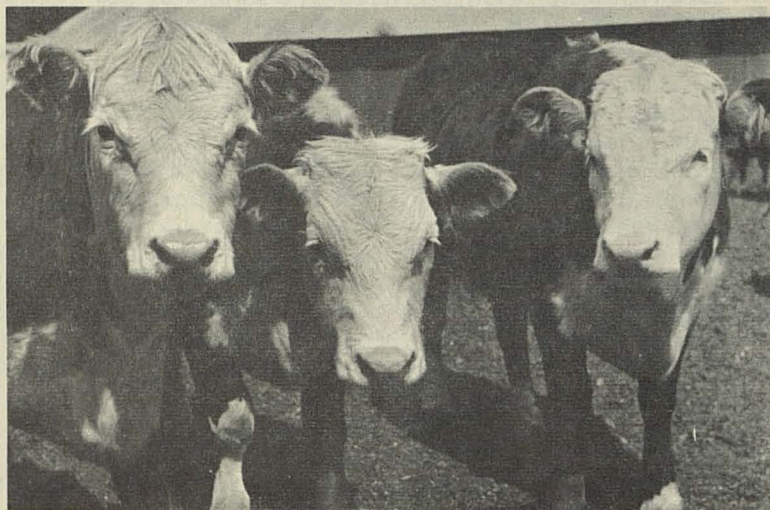
Recommendations for Extension Programs

LIVESTOCK

Livestock is one of the major sources of income for Lyon County farmers. Sixty-one percent of the total farm income comes from livestock and livestock products sold. This has been the trend for the past few years in spite of some changes in kinds of livestock.

The average size of the livestock enterprise in Lyon County was as follows in 1954:

Sows farrowed on farms farrowing -----	13.4	
Dairy cows per herd on farms with herds-	7.6	
Chickens (number per flock) on farms		
with chickens-----	284	
Sheep (ewes in breeding flock) on farms		
with sheep-----	26	
Number of cattle sold per farm, both		
dairy and beef (calves		
excluded)-----	18	(2nd highest in state)



With such a large livestock program, rotations, permanent pastures, feeding and management, and marketing constitute the major problems.

There are large acreages of permanent pastures in the county that are low in production. Tame hay yields are low ($1\frac{1}{2}$ to 2 tons per acre). Pasture and hay are extremely important in good livestock programs.

The committee recommended that educational information on all livestock enterprises should continue to be made available from the Extension Service to our livestock producers. They also recommended that livestock projects should be continued through 4-H work and that feeder projects could be started.

Beef Cattle

Most of the cattle income in Lyon County comes from the sale of slaughter cattle which have been purchased from the range country directly or through nearby dealers. The committee thought that many times the problem was the type of feeder cattle bought.

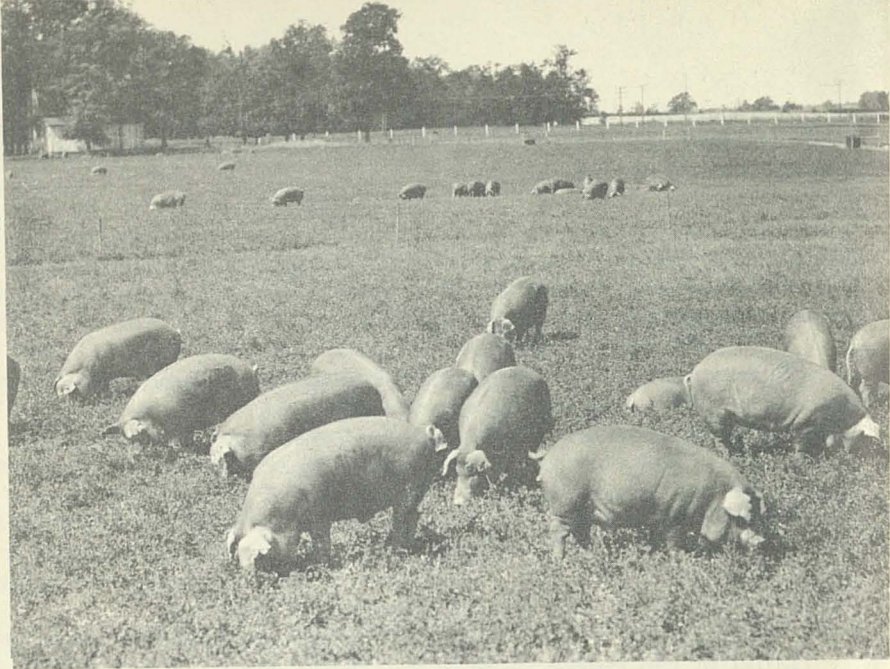
The committee discussed the importance of encouraging producers to use a better roughage program. It was pointed out that new feeding methods and new rations were arising so rapidly that the average feeder could not keep up with them. Work in this line through the Extension program should also be continued.

Selling animals at proper weights has always been a problem. The committee felt that information to the producers on the extra costs and risks involved in feeding cattle after they have reached market weights would be beneficial.

Labor saving devices in the beef feeding operations are also becoming more important to the producer.

Hogs

Twenty-two percent of the sales from livestock and livestock products sold comes from hogs. The newest



program in meat production is the Certified Meat Type Hog Program. The committee recommended that it should be promoted in the county.

The size of the litter and the number of pigs raised is also extremely important. Figures on these important aspects are given below:

Year	SPRING			FALL			TOTAL		
	Sows farrowed	Pigs per litter	Pigs saved	Sows farrowed	Pigs per litter	Pigs saved	Sows farrowed	Pigs per litter	Pigs saved
1950	14,400	6.0	86,400	3,600	6.4	23,000	18,000	6.1	109,400
1953	10,500	6.9	72,400	4,100	6.4	26,200	14,600	6.8	98,600
1954	12,300	7.0	86,100	4,500	6.7	30,200	16,800	6.9	116,300

The size of litters has increased since 1950. In 1954, 6,900 more pigs were raised from 1,200 less sows than in 1950. Figuring the average price of pork and the average cost of production (taken from University of Minnesota Farm Management Records) this netted Lyon County farmers an additional \$62,100.00.

Sanitation methods have improved. The committee recommended work in this field be continued.

New rations and feeding methods are continually coming up from the many feed companies represented in the county.

Multiple farrowing programs to distribute the hog producers income should be stressed.

A good marketing program is just as important for the hog enterprise as it is for the other livestock enterprises.

Better housing and farrowing stalls, along with better sanitation methods, would again raise the percentage of pigs saved over the figure given in the table for 1954.

The Extension Home Program could emphasize the use of pork in the diet to urban and farm families alike.

Poultry And Eggs

Only 6 percent of the livestock income comes from the sale of poultry and poultry products.

More information is needed on the values of larger size flocks, good housing methods, disease control, feeding, and management.

The committee was quick to recognize that consumers are demanding better quality eggs and pointed out that information on egg quality, through better handling and marketing, is important. Modern egg coolers and special markets are important in poultry production.

Laborsaving equipment is especially important to the poultry producers who have larger size flocks. A poultry enterprise properly managed will produce returns as good as other livestock enterprises.

Sheep

Sheep, lambs, and wool make up the smallest percentage of the total farm income from livestock and livestock products sold in Lyon County.

The committee recommends that encouragement should be given to interested farmers in certain areas of the county on sheep production. Some of the rougher land is better adapted to this type of enterprise. When handled properly, profits from sheep production compare favorably with other livestock production.

Dairy

Dairying is not as important to Lyon County as it is to counties that are closer to fluid milk outlets.

The average number of milk cows in the herd is a significant factor in efficient milk production. Lyon County averages 7.6 cows per herd. The committee felt that many of the smaller herd owners would be better off utilizing feed and labor through other livestock enterprises.

The following figures on average butterfat production per cow shows the importance of Dairy Herd Improvement Associations:

	<u>1954</u> <u>pounds</u>	<u>1955</u> <u>pounds</u>
County average-----	193	--
State average-----	220	--
Lyon-Lincoln DHIA average---	336	389
State DHIA average-----	357	358

If the county average butterfat (193 pounds) were increased to the Lyon-Lincoln DHIA average butterfat average (336 pounds), it would mean an additional 143 pounds of butterfat or \$93.00 more per cow.

Using roughages and better pastures are ways that the dairyman could improve his efficiency. Ration-A-Day grazing was also considered.

No doubt, there will be an expansion in the dairy business in Lyon County when markets are developed. Special encouragement and helps should be given to the dairyman who is interested in the dairy enterprise.

EDUCATIONAL METHODS

This committee was formed because at the general over-all program planning meeting there was considerable discussion centered around methods that could be used in teaching our young people and adult groups. It recommended that agents:

1. Consider the possibility of establishing a clearing station for meetings so there wouldn't be as many conflicts for time.

2. Set up more combined meetings, i. e., with other organizations. (ASC, SCS, VOC., Ag., and VET. AG.)

3. Give full information on meetings, time and place of starting, finish time, etc.

4. Continue tours as one of the best methods of education.

5. Get information out not only on meetings but also on timely bulletins and subjects to leaders of farm organizations. Leaders of groups should be informed as to importance of informing their people of a meeting.

6. Set up a newspaper column where local papers cooperate.

7. Have radio broadcasts when possible.

8. When possible, use telephone as a means of reminding folks of meetings.

9. Set up meetings where farm and city groups participate, creating better understanding by both parties.

10. Publicize experimental information.

YOUTH

Youth Situation

At present, the Extension program assists youth mainly through the 4-H program. The following maps give the 1956 4-H picture.

The map on 4-H FAMILIES gives the number of families in each township (total 298) that are reached through the Cooperative Extension Program.

The map on 4-H MEMBERS gives the members in each club (total 551) and the club location.

4-H FAMILIES

Eidsvold	Westerheim	Vallers	Lucas
14	9	15	3
Nordland	Grandview	Fairview	Stanley
7	20	16	13
Island L.	Lynd	L. Marshall	Clifton
14	19	19	14
Coon C.	Lyons	Sodus	Amiret
9	12	21	24
Shelburne	Rock Lake	Custer	Monroe
13	21	19	16

4-H CLUBS AND MEMBERS

Eidsvold "Lucky Star"		Vallers "Goal Hunters"	Swan Lake "Skippers"
26		22	28
Nordland "Top-Notchers"	Grandview "Willing Workers"	Fairview "Greens"	Stanley "Busy Beavers"
24	38	29	21
Island Lake "Zeps"	Lynd "Lions"	L. Marshall "Eagles"	Clifton "Happy Workers"
35	30	34	27
Coon C. "Cheer-Ful Workers"	Friendly "Lyons"	Sodus "Hi-Fliers"	Amiret "Busy Bees"
24	20	35	38
Shelburne "Progressives"	Rock Lake "Go-getters"	Garvin "Hi-Fliers"	Tracy "Comets"
21	45	31	23

There are 19 4-H Clubs in the county. As yet, no club has been organized in Westerheim township. The members there belong to adjoining clubs. In many cases families from one township have members in another club.

There are 46 adult leaders who assist with the 4-H program, plus 86 junior leaders who help the younger 4-H members with their club work.

4-H Club enrollment has increased steadily as is shown in the table below:

<u>YEAR</u>	<u>CLUBS</u>	<u>BOYS</u>	<u>GIRLS</u>	<u>TOTAL</u>
1945	21	184	204	388
1950	20	239	252	491
1955	18	248	256	504
1956	19	273	278	551

Club enrollment and numbers of clubs fluctuate due to many reasons, such as leaders dropping out without replacements or dissatisfaction with club work among older members. At present, 32 percent of the rural boys and girls of 4-H Club age are reached through the Extension program.

Opportunities For Youth

Farms are operated on an average of 33 years by each owner or operator. This would mean about a 3 percent turn-over each year (or 55 farms in the county). In a recent University of Minnesota publication, "Important Aspects of Minnesota Agriculture", by W. H. Dankers, Extension Economist, and F. L. Olson, Extension Marketing Assistant, it was found that about 39 percent of the farm boys in Lyon County who started farming can probably expect a gross income of over \$5,000.00 per year. There are 47 percent that would probably gross less than \$2,500. This means that many boys will be seeking other occupations.

In agriculture there are eight important fields that create some 15,000 jobs for young men and women with college training. At the present time these positions are not filled. The eight fields and the number of employees needed are listed below (there are several sub-phases for each field):

Agricultural Research-----	1,000
Agricultural Industry-----	3,000
Agricultural Business-----	3,000
Agricultural Education-----	3,000
Agricultural Communications-----	500
Agricultural Conservation-----	1,000
Agricultural Services-----	1,500
Farming and Ranching (Special)-----	2,000

Even though all youth may not be able to stay on the farm, this shows there are still ample opportunities to remain in the field of agriculture.

Recommendations

The committee recommends that the Extension program include work with youth through the home, 4-H (ages 9 through 21), and young men and women (ages 18 through 30). Their recommendations are as follows:

1. Through the home

1. Encourage continued education. Study problems of school drop-outs.
2. Hold family life conferences with greater emphasis on values of family working together to obtain goals.

2. Through young men and women and young married couples

1. Provide counseling and discussion for young groups on opportunities, thus preparing them for better futures
2. Form a Rural Youth Group.
 - a. Keep active members.
 - b. Add members by promotion of the program.
 - c. Make program 50 percent education, 50 percent social and recreational activities.
3. Provide farm and home management information and facilities for young married couples.

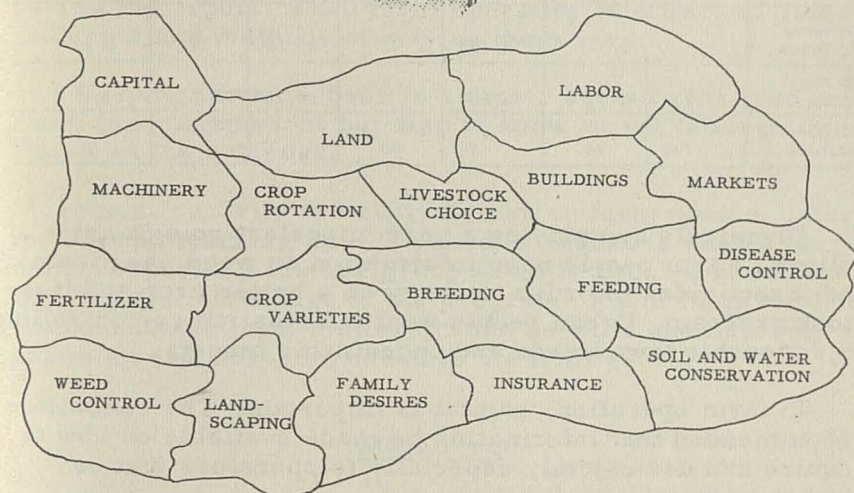
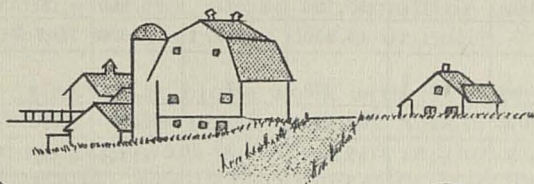
3. Through the 4-H group

1. Consider graduating 4-H members at a younger age.
2. Have projects that are of more interest to older members. Promote more progress projects.
3. Develop adult and junior leadership. Give more assistance in training leaders for their roles.
4. Study reason for drop-outs. Use the other approach and find out why 4-H members continue.
5. Prepare for making future plans, decisions.
6. Develop better cooperation with schools.
7. Form additional 4-H clubs when and where needed.



Farm and Home Management

FARM AND HOME MANAGEMENT, MARKETING AND LEASING ARRANGEMENTS



By viewing the picture above one may see that to properly manage a farm there are several phases to consider. Think of the picture above as a puzzle, if one segment is enlarged or reduced it will not fit until the other segments are properly adjusted.

While increasing production may not be necessary in the next few years, there is still a need for efficient and orderly production. The committee recommended that Extension continue giving assistance in improving crop yields.

Average crop yields and acres of crops for the county are given below:

Crop	1940		1950		1954		Percent of Cropland
	Acres	Yield per acre	Acres	Yield per acre	Acres	Yield per acre	
Corn	111,600	39	134,700	40	149,700	45	40.8
Flax	50,300	12	50,300	10.5	35,900	10	9.7
Wheat-all			4,850	17.9	1,530	9.0	.4
Small grain							
a. Rye	1,600	19	800	17			
b. Oats	75,200	49	84,000	39	102,000	35	27.8
c. Barley	55,300	34	27,000	30	8,300	26	2.2
Soybeans for beans			5,300	12	20,600	20	5.6
All hay-tame	27,700	1.73	32,600	1.49	32,200	2.1	8.7
Irish potatoes	700	74	40	90			

Chemicals are playing a very important role in agriculture. Farm people need information on weed chemicals and insecticides in order to carry on a better crop and livestock program. Urban people want information on controlling objectionable lawn weeds and undesirable insects.

In farm operation, capital is important. The committee recommended that information be made available on how to acquire and use capital, especially to operators just beginning to farm.

Leasing Arrangements

Farm tenancy is high in Lyon County (46.3 percent). The committee felt that through the Extension program a better tenant-landlord relationship could be attained on such things as leases and home improvements. This would involve such things as:

- * Clearly written leases (some long-time provisions).
- * Joint responsibility for planning and sharing costs on conservation problems. (Share government payments).
- * Emphasis on importance of hay and pasture to the livestock operator.
- * How to share costs of repair and upkeep.

General Management

Many farms have an inadequate size of business. The committee realized that high costs of power equipment were forcing operators to increase their volume of business in order to make it profitable to own. This increase in volume is not always in acres of land, but it is the trend. With farms becoming larger, those too small or insufficient will be squeezed out whether they like it or not.

There is need for more work with farm families on an individual basis. This would perhaps enable a family to see their whole management picture as it is shown in the first part of the report. Each farm operation is different. Hence problems and methods of solving them vary.

Keeping farm records is a must, not only for good income tax management but also to know where the farmer stands in the business.

Social security is relatively new to farm people. Information and teaching on this phase is needed to enable farmers, especially the age group about to receive benefits, to take rightful advantage of the program. Farm families desire information on legal matters, such as wills and how they are drawn up and what they mean to the family.

Marketing

The market is the end of the line for agricultural products as far as the farmer is concerned. There is a need for systematic marketing and marketing of higher quality products. This would mean producing the type of livestock and livestock products that the consumer demands, selling animals at correct weights, and selling clean grain.

Extension Home Program

The Extension Home Council is the advisory and planning group for the Extension Home Program. It is made up of home councilors representing the various townships in the county. Through this group much of the organization for

the home program is carried on. The Home Council assists in planning and carrying out the program in the county.

THE HOME PROGRAM

Eidsvold	Westerheim	Vallers	Lucas
42	31	7	7
Nordland	Grandview	Fairview	Stanley
29	36	3	10
Island L.	Lynd	Lake M.	Clifton
33	33	32	14
Coon C.	Lyons	Sodus	Amiret
29	24	23	19
Shelburne	Rock Lake	Custer	Monroe
11	18	35	16

32 CLUBS -- 452 MEMBERS

Information is needed on food preservation. Many families can or freeze some of their food supplies. Proper nutrition, food preparation, and adequate diets are increasingly important to the home manager.

The cost of maintaining a home has risen, and for this reason it is important that the home managers spend wisely. Information on home equipment should be available to them.

CONSERVATION

The Extension Agent works closely with the County Conservation Planner and the Soil Conservation District Supervisors on all phases of conservation.

The following figures on soil conservation practices prepared by the Soil Conservation Service gives an indication of the conservation work accomplished in the county and an estimate of what remains to be done.

The map gives the number of homemakers in each township (total 452 in 32 clubs) reached through the Extension program.

The remaining 46 percent of the farm homes in Lyon County that do not have running water, need what help there is available to obtain this and other labor saving devices for the farm and home operation.

Home and yard improvement is lacking on many of the farms. This includes landscaping, windbreaks, and lawns.

	Acres now on land	Acres estimated re- maining to be done
Contour farming-----	5,491	24,851
Contour strip cropping-----	1,808	9,637
Drainage-----	13,147	74,098
Conservation crop rotation--	73,490	282,732

The Conservation Committee recommends that the long-time Extension program should include teaching on the following phases of conservation both in work with adults and through the encouragement of conservation projects through 4-H, FFA, FHA, and other rural youth groups:

1. Improved Fertility
 - a. Crop rotation improvement and soil tilth improvement.
 1. Use of legumes and green manure.
 2. Importance of organic matter.
 - b. Pasture renovation.
 - c. Soil Testing--promote testing through our University of Minnesota Laboratory.
 - d. Use of commercial fertilizers. Better utilization of barnyard manure.
2. Erosion Control Practices
 - a. Pasture renovation--this is important in controlling erosion as well as improving fertility.
 - b. Use of legumes and green manure, organic matter.
 - c. Sod waterways.
 - d. Wind and water strips.
 - e. Stream improvement.
3. Wildlife Preservation, involving improvement of suitable wildlife habitat through providing food, cover, and perhaps predator control.
4. Forestry Improvement
 - a. Field shelterbelts are needed in some areas for wildlife and wind protection.
 - b. Tree and shrub replacements for landscaping and farm windbreaks.
 - c. Establishment of windbreaks on the many farms needing them.
5. Water - Problems of water retention, irrigation, drainage, river diversion and water laws and supplies have become increasingly important to the county.

The committee recommended that the Extension Service give consideration to the following: (1) Farm ponds; (2) Consider a water shed project; (3) Drainage-a. Sometimes only answer to soil problem; b. Needs for drainage should be checked.

Committees Working on Program

LYON COUNTY EXTENSION COMMITTEE MEMBERS:

CHAIRMAN,	Charles Raine, Marshall,	County Commissioner
SECOND MEMBER,	Joe Brewers, Minneota,	County Commissioner
	G. Oscar Carlson, Marshall,	County Auditor
	Mrs. Blake Nehls, Tracy,	5th Commissioners District
	Mrs. Ted Berends, Ghent,	2nd Commissioners District
	Henry Arndt, Lynd,	3rd Commissioners District
	Wm. Weidauer, Amiret,	4th Commissioners District
	C. J. Garry, Wood Lake,	1st Commissioners District
	Harry Wirth, Marshall,	Member-At-Large

OVER-ALL PROGRAM PLANNING COMMITTEE MEMBERS:

All of these members were contacted in regard to the Extension Program Planning Meeting by members of the Extension Committee; 36 were present at the meeting.

Farm--Kermit Huso, Cottonwood; Nuel L. Olson, Cottonwood; James Cravens, Cottonwood; Bob Simmons, Marshall; Robert McLaughlin, Marshall; Norbert Laners, Minneota; Joe Schreiber, Minneota; Donald Daniels, Tracy; Philip Nelson, Tracy; Melvin Manguson, Tracy; Duane Pagel, Marshall; Wm. Weidauer, Amiret; Henry Arndt, Lynd; Charles Raine, Marshall; Joe Brewers, Minneota; Vincent Ford, Tracy; Alfred Roti, Cottonwood; G. Oscar Carlson, Marshall; Frank Cooney, Russell; C. J. Garry, Wood Lake; Henry Hansen, Amiret; Floyd J. Hovdesven, Cottonwood; Ed Rogers, Tracy; Floyd C. Schultz, Amiret; Harry Wirth, Marshall.

Agricultural Instructors--George Berg, Marshall; Wm. Christison, Tracy; Loyal McCann, Marshall; Harlan Beucler, Tracy.

Home--Mrs. Isadore Peltier, Marshall; Mrs. Clifford Peterson, Cottonwood; Mrs. Harold Gee, Cottonwood; Mrs. Roy Rankin, Marshall; Mrs. Ted Todnem, Marshall; Mrs. G. F. Londgren, Lynd; Mrs. Carleton Walker, Russell; Mrs. Tom Walters, Garvin; Mrs. Mike De Cramer, Ghent; Mrs. Wm. Fischer, Marshall; Mrs. Lester Robinson, Garvin; Mrs. Vera Orsen, Minneota; Mrs. Blake Nehls, Tracy; Mrs. Harry Stassen, Taunton; Mrs. Ted Berends, Ghent; Mrs. Wm. DeWitt, Balaton; Mrs. Charles Banks, Lynd; Mrs. W. A. Wichmann, Balaton; Mrs. Elmer Furgeson, Lynd.

Schools--D. G. Peters, Minneota; H. L. Point, Russell.

Church--Rev. Andrew Bosman, Russell.

Business--Ted Stark, Russell; Merrill Starr, Tracy; Kenneth Sheffield, Marshall; Art Persons, Marshall.

GROUP COMMITTEES

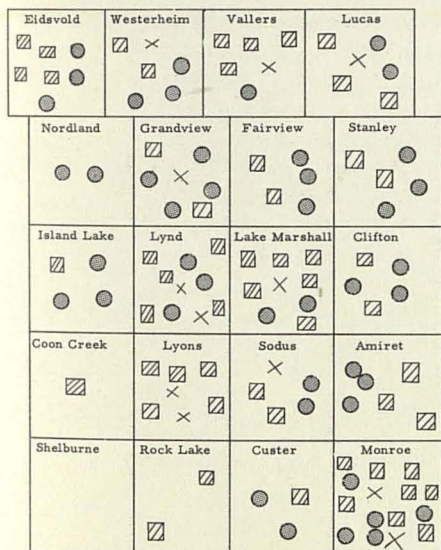
Livestock--Harlan Beucler, Tracy, Chairman; Robert Simmons, Marshall, Chairman; Mrs. Richard Marcotte, Marshall; Kenneth Lord, Milroy; Dr. D. B. Hicks, Tracy; Charles Klein, Tracy.

Educational Methods--Mrs. Ted Berends, Ghent, Chairman; Mrs. Charles Banks, Lynd, Chairman; Mrs. Robert Middleton, Marshall; Mrs. Elmer H. Ferguson, Lynd; Mrs. Floyd Harris, Lynd; Ted Anderson, Ghent; Vernon Christianson, Milroy; Henry Hansen, Amiret; Leo Balle, Lynd; Orren Reed, Cottonwood; John C. Boerboom, Marshall.

Youth--Henry Hansen, Amiret, Chairman; Mrs. Harry Stassen, Taunton, Chairman; Mrs. Blake Nehls, Tracy; Mrs. Gordon Chalmers, Marshall; David Josephson, Minneota; Mr. & Mrs. M. L. Hodges, Marshall; Harold Anderson, Garvin; Mrs. Lester Robinson, Garvin.

Farm And Home Management, Marketing, Leasing Arrangements-- Joe Brewers, Minneota, Chairman; Melvin Manguson, Tracy, Chairman; Norbert Lanners, Minneota; Mrs. Marvin Stensrud, Minneota; Mrs. Francis Claeys, Marshall; Wm. Culshaw, Minneota; Harold Gee, Cottonwood; Knute Dovre, Minneota; Mrs. Wallace Wichmann, Balaton; Mrs. Ted Todnem, Marshall.

Conservation--Floyd C. Schultz, Amiret, Chairman; Nuel L. Olson, Cottonwood, Chairman; Ed Rogers, Tracy; Ward Johnson, Lynd; Mrs. Roy Dierickx, Ghent; Mrs. Mike De Cramer, Ghent; Louie Caron, Marshall; Joe Brewers, Minneota; Alfred Roti, Cottonwood.



This map shows the location of those who were asked to participate in long-time program planning.

X - 12 - Extension committee members and county commissioners

- 55 - Over-all program planning

- 44 - Group committees

Conclusion

One average farm worker today supports himself and 18 others with his production of food, fiber, and tobacco. In 1940 he supported himself and 10 others. Farm output for human use has risen faster than population since about 1935. This tremendous output happened partly because of the outstanding progress in farm technology over the past 20 years, thus creating another problem "Surplus".

During the war and Korean outbreak each factory was encouraged to produce maximum supplies. Farm output was encouraged during the war years and the Korean outbreak. Perhaps we have not adjusted as well as other wartime factories. Now new agricultural programs are being developed in the hope of solving our problems.

According to recent information that came from the results of the thirty-fourth Agricultural Outlook Conference in Washington, on our present acreage we will be able to produce the food, feed, and fiber necessary for our increasing population until 1975. The main increase needed will be in livestock production. Livestock numbers will have to increase by one-third to take care of the predicted growth in population.

The Extension Service in cooperation with all agencies hope to reach farm and urban people with the information they need.