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The Effects Of Adult Agricultural Education Program In The Ennis Independent School District

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THE EFFECTS OF ADULT AGRICULTURAL EDUCATION PROGRAM
IN THE ENNIS INDEPENDENT SCHOOL DISTRICT

BAKER

1954

THE EFFECTS OF ADULT AGRICULTURAL EDUCATION PROGRAM
IN THE ENNIS INDEPENDENT SCHOOL DISTRICT

By
Roy Baker

A Thesis Submitted in Partial Fulfillment
of the Requirements for the Degree of

Master of Science
in the
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of

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R. B.

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INTRODUCTION

The much discussed parity prices among all classes of farmers have caused much agitation in the United States.

It is becoming apparent that this age of technology and the economic status of farm people should be in a close harmony with that of industrial standards.

In the Ennis Independent School District, agriculture in addition to supplying the basic human needs, is a way of life, a means to honorable employment, and a source of wealth. In short, agriculture affects the life of every home in this school district. While it would be presumptuous at this time to measure the full effects of this program, the writer believes that his eight years of close contact with the people comprising this valuable occupation, has given him the background, knowledge and experience necessary to accurately gauge beyond reasonable doubt the effects of the adult agricultural education program on the people of Ennis, Texas.

Historical Background

In the year, 1917, and in the 64th Congress of the United States of America the Smith-Hughes Act was passed. During the past 37 years many changes have taken place.

The Texas Vocational Board during the middle forties

felt that it was too big a job for a man to serve as principal or superintendent of a school.

So the principal of the Carver High School was advised to accept one or the other; so he gave up vocational agriculture and accepted straight principalship.

In the summer of 1946, the writer resigned his job at Fisher High School, Athens, Texas, to accept a job as vocational agricultural teacher at Carver High School, Ennis, Texas.

It would be presumptuous at this time to measure the full effects of his endeavors, but after the passing of eight years, the time is ripe to begin an impartial analysis of the effects of the agricultural program in the Ennis, Independent School District.

Since adult education in a democratic society calls for the expenditure of some money, it should affect the well being of the people, challenges the interest and support of many individuals and influence the welfare of democracy itself. The true economic test of recommended agricultural practices is whether or not farmers generally find them profitable when applied to their businesses. Human nature is prone to attribute apparent success or failure to the wrong cause. Farmers are continually experimenting and gaining experiences in the operation of their businesses. If the practice of most of the better farmers can be enumer-

ated and analyzed statistically, their true relationship to the income of farmers can be accurately determined. This will provide farmers and other agricultural workers with valuable information.

Ellis County is one of Texas leading crop growing counties on black land of the North Central part of the state. Stable native white population with considerable Negro population depends primarily on agriculture for livelihood.

The Ennis Independent School District has an area of 156.31 square miles. The largest town in the district is Ennis; it has a population of 7,817. Industries carried on are: Cotton ginning, oil mill work, Poultry Packing and Flour Mill Industry.¹

The writer was reared on a farm in East Texas, and came to Prairie View Agricultural and Mechanical College and majored in Agriculture.

He attempts to put this information to good use in the Ennis Independent School District.

Many farm practices were taught and encouraged. The writer secured the assistance of a related agency. This related agency was soil conservation service. This service co-operated with landowners and operators to attain soil

¹Texas Almanac, 1954-1955. Published by the Dallas Morning News, p. 547.

conservation objectives.

Some of the many practices that the farmers were aided with were soil conserving practices such as contouring, running terrace lines and staking off ponds in pastures to furnish water for livestock.

Definition of Terms

Adult Agricultural Education as used in this study is a branch of education. As stated in Section 10 of Original Smith-Hughes Act, such education shall be of less than college grade, and be designed to meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm or the farm home.

Effect is used in the following sense; to bring to pass, execute, accomplish, to produce. Education has to do with inducing growth and change in people.

Statement of Problem

Supervised farming serves as a basis for instruction which has as its outcome the development of persons for proficiency in the vocation of farming and the improvement of farm life. The problem of this study is to analyze the adult education program in Ennis, Texas, for the purpose of determining whether or not these objectives are being realized.

Scope and Method of Securing Data

This is a study which covers a period of eight years, from the year 1946, to the summer of 1954. It deals with members in the writer's evening school classes. They are scattered over the Ennis Independent School District which has over 156.31 square miles.

This information was secured through questionnaires from 31 key farmers in Ennis Independent School District.

Size of Business

Farming is an industry of small independent units.

In farming, the unit of organization is small. In this respect farming is similar to the small retail trade enterprises and the local shop or neighborhood industries.²

The size of business is directly related to labor income during favorable farming years, and inversely related to labor income in poor years.

In all similar farm management studies, this has been strikingly shown. It is not possible to make a very large loss or very large profit with a small business.

Generally farms among Negroes in the black land areas are small as compared to East Texas Farms. However they are far more productive and the yield is much greater.

²G. W. Forester, Farm Organization and Management, New York: Prentice-Hall, Incorporated, 1946, p. 10.

PRESENTATION AND ANALYSIS OF DATA

The Economic Conditions During Post War Years

During the year 1946, many men were still in various branches of the armed forces of the United States. Some had returned home to join in the family food front.

The adult farmer who had remained on the farm during the war years and helped to grow much of the food and fiber needed in the war had to readjust himself to conditions that had come upon him. The war years of 1942-43-44 and 1945 had established a false sense of economy for him.³ Civilian demands remained high during this time. Much of the output of war goods came to a sudden end after Victory day in Europe, but factories were soon cleared for their old tasks. Even though the farmer of 1946, had to become accustomed to feeding many people of foreign countries, more farm machinery was made available for this task and all previous records were broken.⁴ Purchasing power remained strong. Total spending increased but prices that farmers received for their produce were good.

Following Mr. Talley's prediction, the year, 1946, was a most significant peacetime year.⁵ Despite reconversion problems in industry, farmers looked forward to a strong

³L. R. Neel, "Economic Conditions During War Years," The Farm Outlook for 1946, Vol. I, (January, 1946), p. 41.

⁴The Farmer Stockman, (January, 1946), p. 42.

⁵Ibid., p. 49.

year for agricultural products.

Plant Enterprises and Distribution of Farm Acreage

One-crop farming generally is considered to be risky from the standpoint of income, soil depletion erosion, and form disease infestation of the soil. In some areas, some cropping of the same field over and over again brings serious problems regarding soil maintenance and the infestation of weeds.⁶

Table I shows the diversified crops in the Ennis Independent School District. It is also shown that there is a definite increase in major cash crop as well as in supplementary crops.

TABLE I

DISTRIBUTION OF FARM ACREAGE IN THE ENNIS INDEPENDENT SCHOOL DISTRICT

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954
Cotton	802	998	1109	1102	1236	1271	1247	1380	893
Corn	82	148	153	152	148	200	213	201	177
Pasture	153	239	303	322	267	337	287	323	331
Forage	56	62	60	79	88	89	77	79	68
Hay	78	75	75	103	102	96	96	91	90
Peas	22	23	22	29	25	23	36½	39	27

⁶"Planning the Farm for Profit and Stability," Farmers Bulletin, U. S. Department of Agriculture, 1951, p.22.

Although cotton is the leading cash crop in the south, production is confined, as a rule, to a few months of the year. The writer has encouraged diversified farming in spite of the fact that farmers usually find work through the summer, late fall, and winter. Cotton is a soil depleting crop when it is planted from year to year. When the plant food becomes used up, the yield is much smaller and staple, shorter.

If cotton is to retain its title, "King Crop" of the south, certain improved practices should be added, such as soil conserving and soil building practices. Crop failures, although they may occur occasionally on any farm, are much more likely to occur in some areas than others.

Farming risk can be greatly reduced by following sound farm practices. Diversification of crops, whenever possible, gives a farmer income even if one crop fails. The use of tested seed makes more certain a good stand and will be secured. Hybrid seed from proved lines assures yields.

The application of certain high analysis fertilizers has caused a great increase in crop production.

The Ennis School District has long been recognized as an outstanding crop producing area.

The planting of one crop continuously has caused the law of diminishing returns to set in. This law is briefly

TABLE II

THE YIELD PER ACRE OF THE MAJOR CROPS GROWN IN THE ENNIS
INDEPENDENT SCHOOL DISTRICT

Year	1946	1947	1948	1949	1950	1951	1952	1953
Average Yield Cotton per Acre	850	900	1000	1000	900	1000	1000	1750
Average Yield of Corn per Acre	20	25	28	30	35	40	45	50
Average Yield per Acre in Bales of Hay	100	200	250	300	350	400	450	475

stated as follows, "when a variable factor is applied to a fixed rule, the rate of production will increase per acre at a diminishing rate."

Ellis County many years ago produced better than a bale of cotton to the acre and good yields of corn per acre. However, the one crop system has caused it to be slightly off in production. The writer has caused an upward trend in production of cotton, corn, and hay.

Table II shows a general increase in production brought on by planting soil conserving crops, use of high analysis fertilizer, and the eradication of insects through the use of poisons.

The purchasing of hybrid seedcorn and improved cotton seeds have caused production to double during the past eight years.

The cropping system should provide, first sufficient roughage, pasturage, and a large part of the concentrates for all livestock on the farm; second, for maintaining the fertility of the soil; third, at least two cash crops for which there is a good market; fourth, rotation with reference to insect and disease control.

There should be an adequate home garden, orchard and feed production to supply the needs of the farm.

Planting seed should be of known and adapted varieties, pure and free from seed borne diseases and they should receive good care.

They may be obtained on the farm, at least cotton and corn should be field selected or purchased from reliable sources.

Table III shows some of the plant enterprise problems and the results obtained.

The plant enterprises are the major enterprises in Ennis Independent School District.

With the application of fertilizers, better seed and eradication of insects, these enterprises will continue to bring large returns.

Table III also shows that there were 8 farmers

TABLE III
PLANT ENTERPRISES

Job or Problem	Before Taught	In year Taught	After Year Taught	No. saying results were:			
				Good	Fair	Poor	Total
Crop Production Selection of Improved Seed	8	5	12	5	12	8	25
		6	19	6	19		25
Treatment of Disease and Insects	2	10	13	13	10	2	25
Planting and Cultivation	8	7	10	7	10	8	25
Use of Fertilizer	5	8	12	8	12	5	25
Home Vegeta- ble garden Fertiliza- tion	10	5	10	5	10	10	25
Improving Nut and Fruit Trees	10	5	5	10	10		15
Budding and Grafting		8	7	7	8		15
Selecting Trees from a reliable Nursery	3	12	7	12	7	3	22

producing crops; many lived on the farm but high prices paid for labor in industrial areas caused many of them to give up the farm. However, some were lovers of farm life and remained on the farm and 17 have continued producing crops, with five going on to do a good job; whereas, 12 are only doing a fair job.

None of the farmers already engaged in farming were using improved seed, this greatly hindered yield and staple. In the year it was taught there were 6 farmers who began buying improved seeds; after it was taught, 19 took on the approved practice. Of this number six are doing a good job; 19 are doing a fair job.

Treatment of diseases and insects generally means the success of any crop farmer. In our economy production to its fullest capacity is always stressed. This is often hindered by diseases and insects.

There were 2 farmers who were treating their crops for disease and insects; 10 farmers began in the year it was taught; 13 began a year after it was taught; 13 were doing a good job; and 10 were doing a fair job.

There were 8 farmers planting and cultivating crops before being taught; yet their success or results were poor. In the year it was taught, 7 began to cultivate and plant as they were taught; 10 began the year after it was taught. Seven are doing good jobs, and 10 are doing fair jobs.

The use of fertilizer to increase production was used

by 5 farmers. They were not as successful as they might have been due to use of the wrong fertilizer. Black land is usually high in nitrogen but low in phosphate, the application of a high nitrogenous fertilizer only increases the stalk. It does not aid the fruiting of cotton or cause corn to have large average ears. Now there are 20 farmers applying fertilizer; 8 were doing a good job; 12 were doing a fair job.

There were 10 farmers growing gardens but they were not very successful. With everything high, they felt they could make enough money to buy vegetables without growing them. However, five farmers began growing gardens the year it was taught and are doing a good job; 10 began the year after it was taught and are doing a fair job.

Such nuts as pecans and fruits, such as peaches, pears, and figs, were not produced. The idea still prevailed that it was practical for farmers to buy nuts and fruits. However, in the year it was taught 10 people began improving nuts and fruit trees with 10 doing a fair job. Five began a year after it was taught and are doing a good job.

Many trees grow wild but are very valuable if properly budded and grafted. These problems were not undertaken by the farmers. In the year it was taught 8 farmers began grafting, with all eight doing a fair job. Seven began a year after it was taught. They are doing a good job.

The idea of selecting trees from a reliable nursery had been started. There were three farmers who were doing this practice. The peaches and nut trees selected did not do good in the black land, however, some care has been given to select what will best grow in this area and as a result 12 farmers began a careful selection of trees; 12 are doing a good job. Seven began a year after they were taught and are doing a fair job.

Beef Cattle Offer a Great Supplement to Cotton

The writer believes that beef cattle is one of the soundest investment one may have on the farm, because of the wide price cycle which lasts from 7 to 15 years.

Through proper breeding, feeding, management and marketing, the growing of beef cattle is one of the coming enterprises in the Ennis Independent School District.

Table IV shows a definite increase in beef cattle. It gives the farmer ready cash before he finishes his cotton crop since the best time to market beef cattle is late winter and early spring.

During the past eight years the writer has taught pasture improvement and encouraged more forage crops for livestock.

Cattle are raised chiefly on pasture and hay although large quantities of grain are used in finishing cattle.

In the black land of Ellis County large quantities of hay, forage crop, and cover crops are now grown very

TABLE IV

BEEF CATTLE GROWN IN THE ENNIS INDEPENDENT SCHOOL DISTRICT

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954
Grown	18	29	44	61	82	100	92	99	87
Sold	0	0	10	18	26	48	46	54	44
Home Use	18	29	34	43	56	52	46	45	43
Total	18	29	44	61	82	100	92	99	87

TABLE V

DAIRY CATTLE GROWN IN THE ENNIS INDEPENDENT SCHOOL DISTRICT

Year	1946	1947	1948	1949	1950	1951	1952	1953	1954
Grown	22	30	42	54	74	88	82	90	82
Sold	0	2	5	15	25	30	35	39	32
Home Use	22	28	37	39	49	58	47	51	50
Total	22	30	42	54	74	88	82	90	82

extensively for livestock production.

During the war a large percentage of the people throughout the nation were rejected on account of malnutrition. The Texas Feed Standard calls for one quart of milk for each child and one pint of milk for each adult.

Although there are 55 dairies in Ellis County, the writer believes the best way for a farmer to have ample milk and butter is to produce it on the farm.

Table V shows an increase in dairy cattle. Milk and its products are basic as well as popular foods. Dairy cows utilize efficiently the large quantities of roughage which many of the farms produce, also dairy farming is an intensive enterprise, a large business can be built on a small acreage.

American agriculture is headed for a livestock economy, the longer prosperity lasts, the faster the changes will be pronounced in the South, which now is recognized by the United States Department of Agriculture experts as the chief "coming" livestock region. Agricultural and business leadership must stress the feeding of more livestock on farms for the sake of the soil. It must bring about a balance use of farm labor. It must bring about more diversified income, greater returns from farm growth roughages, better pastures, and the feeding of grains in proper balance with concentrated

protein.⁷

TABLE VI
DAIRY ENTERPRISE

Job or Problem	Before Taught	In year Taught	After year Taught	No. saying results were:			
				Good	Fair	Poor	Total
Feeding a Dairy Ration		3	12	3	12		15
Growing Young Heifers	3	5	10	5	10	3	18
Selecting a Dairy Breed		8	10	8	6	4	18

Table VI shows that before 1946, there were no farmers feeding a dairy ration; three were growing young dairy heifers, and none of the adult farmers were selecting a dairy breed. Since that time 15 farmers are feeding a dairy ration; 15 are growing young heifers and eighteen are selecting a dairy breed. Sixteen of these are doing a good job, and 28 are doing a fair job.

⁷Wayne Darrow and Porter Hedge, Farm and Ranch Agriculturist, Vol. 80, No. 6, (June, 1950), p. 9.

Feeding the proper ration along with proper selection of a dairy breed and growing young dairy heifers are some of the most important jobs confronting the dairy farmer.

The writer primarily pointed out that farming is made up of small individual units; since that is true, a farmer should grow into business rather than go into the business of farming.

Beef Cattle Production

The feeding of cattle for beef production affords one of the most practical ways of disposing of grain and roughages produced on the farm.

This industry favors diversification in agriculture and makes possible a well-balanced distribution of labor throughout the year, seventy-five per cent of the fertilizing constituents of feed, given to livestock is returned in the manure; consequently, when manure is saved and applied to the land, feeding operations largely maintain soil fertility.

On most farms in the Ennis Independent School District where beef cattle are grown, they are fed before marketing. The length of feeding period varies from about two months to as much as 12 months, older cattle are usually fed a short time, whereas yearlings and cattle two years old and of good quality, in average feeding condition require from 4 to 9 months to attain a suitable degree of finish.

Table VII shows many of the problems connected with this enterprise and the favorable response the adults in the Ennis Independent School District are making. In the year, 1946, there were only 5 farmers growing beef cattle but they were not using improved practices related to beef enterprise today.

TABLE VII
Beef Enterprise

Job or Problem	Before Taught	In year Taught	After Year Taught	No. saying results were			Total
				Good	Fair	Poor	
Feeding Beeves for Market	5	15	5	5	15	5	25
Vaccination for Black Leg and Anthrax		3	7	3	7		10
Pasture Improvements	5	5	15	5	15	5	25
Winter Grazing	4	6	15	6	15	4	25

Table VII also shows that there were five farmers feeding beeves for the Market before 1946. None of them were vaccinating for Black Leg and Anthrax. Five were engaged in pasture improvements and 4 planted rye for winter

grazing.

Since 1946 there have been 20 farmers feeding beeves for market, of this number, 5 were good, and 15 were fair. The high price of feed and the falling price of cattle caused a decline in feeding practices.

Only five people were improving their pastures before this job was stressed and taught. Since that time 20 people have applied lime and phosphate to their pastures, and cut weeds and bushes. Only 4 farmers practiced winter grazing in the year 1946. Since that time 21 farmers plant winter cover crops which is a soil conserving practice as well as an aid to growing better livestock. The long growing season, mild winters, improved pastures and winter grazing make a very favorable outlook for this enterprise.

On improved pastures, with winter grazing cattle will do their harvesting, thereby saving labor and at the same time building up the soil.

Poultry Enterprise

The poultry enterprise is one which can be grown on very limited areas and does not require a large amount of labor; yet it may bring in money every month in the year.

The writer believes that the poultry business, just as any other business, must keep abreast of the time by altering his management practices in the light of new information, if it is to meet competition and continue to grow.

Table VIII shows some of the problems connected with the poultry enterprises and how well the farmers with the aid of the writer was able to solve them. Only three used improved practices before 1946, now 28 are using better feeding practices; 25 are culling hens; 18 are growing broad breasted turkeys; 18 are growing turkeys for the November market. With the use of improved practices along with favorable location this may become one of the leading poultry producing areas.

Table VIII shows that out of eleven jobs taught on poultry enterprises, there were four being practiced. Only two were treating poultry diseases. Today there are thirty farmers who are treating their birds for diseases such as sore head, muscular weakness, and colds. Fifteen are doing good, 15 are doing a fair job.

None were actually vaccinating for cholera. Cholera is a very dreadful disease usually causing a high death rate in poultry. Fifteen farmers are now carrying on this approved practice. Five are very successful and 10 are doing a fair job.

Such diseases as Roup and Diarrhea are very common in the black land in the winter and spring. Only three were treating birds for these disease. Today, 28 people treat their birds for these diseases. Ten are doing a good job,

TABLE VIII
POULTRY ENTERPRISES

Job or Problem	Before Taught	In Year Taught	After Year Taught	No. saying result were			Total
				Good	Fair	Poor	
Poultry Diseases	2	15	14	15	14	2	31
Better Feeding	2	10	18	18	10	2	30
Vaccination		5	10	5	10		15
Use of medicine for Diarrhea and Roup	3	10	18	10	18	3	31
Poultry Production	8	10	13	13	10	8	37
Culling Hens		5	20	5	20		25
Feeding and egg laying Ration		10	17	10	17		27
Selection of Hybrids		5	9	5	9		14
Treating Turkeys for blue comb		8	10	8	10		18
Selection of broad breasted turkeys		10	8	8	10		18
Feeding May Turkeys for November Market		8	10	10	8		18

and 18 are doing a fair job.

Culling hens for egg production was not practiced. Now 25 farmers cull their laying flocks. Five are doing a good job, and 20 are doing a fair job.

Producing plenty eggs for human consumption and for marketing purposes cannot be done unless one feeds an egg laying ration. Twenty-seven farmers are feeding an egg laying ration. Ten are doing a good job; 17 are doing a fair job.

Hybrids are the results of several crosses which produce a bird that lays more eggs and consumes less feed. When one can hold down the feed bill, there is a much better chance for profit. Fourteen farmers have taken on this approved practice. Five are doing a good job, and 9 are doing a fair job.

Many farmers will not grow turkeys because of certain peculiarities of the birds. They are very easy to take contagious and communicable diseases. None of the farmers were growing and marketing turkeys. Today large numbers are grown and sold in Corsicana, Dallas, and Fort Worth; 18 farmers are engaged in this enterprise. Eight are doing a good job treating them for blue comb and selecting broad breasted type. Ten are doing a good job feeding for November market, and 8 are doing a fair job.

High mortality, good feeding, management and a

favorable market are some of the important problems which determine whether one will succeed or fail in the poultry enterprises.

Crops and Livestock May Be Complementary

It is often feasible to add livestock to the organization for the purpose of utilizing unmarketable products, such as roughage, pasturage, damaged grain, or other crops which ordinarily cannot be directly marketed at a profit. One type of livestock may be added to the farm for the purpose of consuming products which otherwise would be wasted by another class of livestock. Hogs are often added to the farm for the purpose of utilizing the corn wasted by steers when the steers and other livestock are being fed in dry lots.

Through approved practices in swine production, in feeding, breeding and management, the writer believes hogs are developing into one of the leading complementary farm enterprises.

Since the trend in the district is to raise more home grown feeds and provide better pastures, the favorable location for marketing--30 miles from Dallas and 57 miles from Fort Worth stock yards--can be capitalized upon.

In general, the hog enterprise on the farms studied was small. However, the writer encouraged wholeheartedly

SWINE GROWN IN THE ENNIS INDEPENDENT SCHOOL DISTRICT

Date	1946	1947	1948	1949	1950	1951	1952	1953	1954
Hogs Grown	110	133	156	388	317	347	353	330	204
Hogs Sold	45	70	76	192	226	256	247	248	132
Used at Home	65	63	88	96	91	91	106	139	72
Total	111	133	156	288	317	347	353	330	204

swine production. This is because the hog enterprise is supplementary to the production of crops and could be conducted without reducing either the amount of crops and the attention given to crop production and without increasing the labor force.

Table IX will show a definite increase in swine production. In the year 1940, there were 10 families growing hogs in the Ennis Independent School District. Today there are 25 families growing hogs. In 1946, there were 110 being grown each year; today, the farmers are growing 204 hogs.

A hog is an efficient machine for changing farm grain into pork. Whether this machine pays depends on a number of things, such as good quality of stock, comfortable clean quarters, plenty of pure water and shade, freedom from disease, good pastures skill in marketing, the price of hogs

versus the price of feed, the amount of surplus grain on hand, and proper methods of feeding.

Texas farmers produce fewer hogs now than they did fifty years ago.

Texans are found to be fond of pork. Farm and commercial slaughter of hogs produced in Texas provide a per capita supply of pork that falls short of Texas needs. Annually thousands of live hogs and millions of pounds of pork products are shipped into Texas from states to meet this demand.

The production of swine has an advantage that help make it profitable. They are prolific. They require little labor and the equipment necessary for handling them need not be expensive.

Table X shows the production of the swine enterprise and how the farmers have begun to solve them.

TABLE X
SWINE ENTERPRISE

Job or Problem	Before Taught	In year Taught	After Year Taught	No. saying results were:		
				Good	Fair	Poor
Feeding Hogs for Market	3	6	19	19	6	3
Selecting Pure Bred Hog	1	10	15	15	10	1
Sanitation		12	13	12	13	
Butchering	4	15	10	15	10	4

Before 1946, as is shown in Table X, there were three people feeding hogs for market, one selecting pure bred hogs, and none practicing sanitary measures, and four were butchering.

Since that time there are 25 feeding hogs for market, and 25 selecting pure bred hogs, 25 practicing sanitation, and 25 butchering hogs.

The two great problems affecting the swine enterprise are feeding and selections. Without these jobs being properly performed, it is impossible to succeed. There are 19 farmers feeding hogs for market. Nineteen did a good job. Fifteen are selecting pure bred hogs, and 15 are doing a good job; 6 are doing a fair job of feeding and marketing hogs, and 10 are doing a fair job of selecting and breeding.

Many hogs are grown and marketed at home. This gives a basic market for a few hogs at all times.

The big problem in conserving food is to prevent or control the activities of germs or organisms which cause foods to spoil. These are yeast, mold, bacteria, and enzymes. The most dangerous causes of spoilage in canned foods are spore forming bacteria which cause serious illness.

The problem of food conservation has been favorably solved by adults in the Ennis Independent School District.

Twenty-three of 31 adults canned extensively. This was made possible through the writer giving demonstrations

in food preservation.

Almost all members of adult classes do some type of food preservation.

TABLE XI
FOOD PRESERVATION

Date	1946	1947	1949	1950	1951	1952	1953
Food Canned	2293	2501	2495	2553	3480	3390	4217

Whenever food prices rise noticeably consumers want to know why, and they often ask how much farmers are getting out of these higher prices they are paying.

Farmers look at prices they are paying, and they want to know what becomes of the difference between the two figures.

These questions also have concerned Congress which recently authorized a special investigation into price spreads between farmers and consumers.

Approximately two thirds of the adults in the Ennis Independent School have attempted to solve the food problem by canning in the spring and early summer when foods are plentiful.

The canning centers organized in the Ennis Independent School District have done much to solve the food

situation in this district.

Annual purchases for a family of three are as follows:

Peaches	5	Number	2½ cans
Snap-beans	5	Number	2 cans
Corn	10	Number	2 cans
Peas	11	Number	2 cans
Tomatoes	14	Number	2 cans
Others	70	Number	or pounds.

The study revealed that of the 31 farmers studied, before they were taught, only 3 were growing hogs for market; one was selecting pure bred hogs and 4 were butchering hogs.

Now 25 are feeding hogs for market, selecting pure bred hogs, practicing sanitation and butchering hogs.

There were five persons feeding beeves for market; five were improving pastures and four were planting winter grazing pastures. Now 20 are feeding beeves for market; 20 are growing winter grazing pastures.

In the plant enterprises there were eight farmers selecting improved seed; two were treating crops for disease and insects; eight were using improved methods of planting and cultivation; five were using fertilizer; ten were growing home gardens and three were selecting fruit trees from a reliable nursery. Since these problem areas have been taught, there has been an increase in acreage and yield; seventeen farmers are selecting improved seed; twenty-three are treating crops for disease and insects; seventeen are using fertilizers. Fifteen are growing vegetable gardens, and improving nuts and fruit trees. Nineteen are selecting trees from a reliable nursery.

The study also reveals that two were treating poultry disease and carrying on better feeding; three were using medicine for Diarrhea and Roup; eight were engaged in poultry

production.

Presently twenty-nine farmers treat poultry for diseases; twenty-eight use better feeding practices; fifteen vaccinate for Cholera; twenty-eight use medicine for Diarrhea and Roup; twenty-five cull hens for egg production; twenty-seven feed an egg laying ration.

In conclusion, on the basis of information revealed there is an opportunity ahead for the farmers to do more in the future than in the past.

A continuation of the balance between crops and livestock, the addition of approved and improved practices, will add to soil fertility and will result in financial gains to farmers.

These data were analyzed in eleven tables and the results were revealed as follows:

1. There was an increase in acreage and, also, yield.
2. Twenty farmers are feeding beeves for market; twenty are improving pastures, twenty-one are planting winter grazing crops.
3. Twenty-five are feeding hogs for market, selecting pure bred hogs, and are practicing sanitation and butchering.
4. There are fifteen feeding a dairy ration and growing heifers; and eighteen are selecting a dairy breed.
5. There were seventeen farmers selecting improved seed.

Twenty-three were treating crops for disease and insects. Seventeen were using improved methods of planting and cultivation.

Twenty were using fertilizers.

Fifteen were growing vegetable gardens and improving nut and fruit trees by budding and grafting, while 19 were selecting trees from reliable nurseries.

Changes were brought about in Ennis Independent School District as a result of patience, faith, and hard work; during the past eight years, all indications point to rapid progress in years to come.

RECOMMENDATIONS

1. Develop better livestock and poultry.
2. Improve pastures and give vigorous support to soil and water conservation practices.
3. Practice producing field crops adapted to soils and climate, with emphasis on the use of home-grown feeds in feeding and finishing livestock for market.
4. Give full support to insect, rodent and predatory animal control work.
5. Employ better farm management practices, with regard to the inherent possibilities of the farm.
6. Continue home improvements that make for family happiness and contentment.
7. Sell products at a time when returns will be highest.
8. Utilize machinery to fullest extent.
9. Secure good seed and fertilizers.

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APPENDIX

QUESTIONNAIRE

Name _____

Address _____

Number of acres in pasture in: 1946 _____, 1948 _____, 1949 _____,
 1950 _____, 1951 _____, 1952 _____, 1953 _____, 1954 _____.

Number of acres in cotton in: 1946 _____, 1947 _____, 1948 _____,
 1949 _____, 1950 _____, 1951 _____, 1952 _____, 1953 _____,
 1954 _____.

Corn: 1946 _____, 1947 _____, 1948 _____, 1949 _____, 1950 _____,
 1951 _____, 1952 _____, 1953 _____, 1954 _____.

Hay: 1946 _____, 1947 _____, 1948 _____, 1949 _____, 1950 _____,
 1951 _____, 1952 _____, 1953 _____, 1954 _____.

Forage: 1946 _____, 1947 _____, 1948 _____, 1949 _____,
 1950 _____, 1951 _____, 1952 _____, 1953 _____, 1954 _____.

Peas: 1946 _____, 1947 _____, 1948 _____, 1949 _____, 1950 _____,
 1951 _____, 1952 _____, 1953 _____, 1954 _____.

Food conserved, number of cans: 1946 _____, 1947 _____,
 1948 _____, 1949 _____, 1950 _____, 1951 _____, 1952 _____,
 1953 _____, 1954 _____.

Do you own your own home? _____

If "yes", for how long? _____

Number of Hogs grown:	Year	No. Sold	No. Used by Home	Total
	1946	_____	_____	_____
	1947	_____	_____	_____
	1948	_____	_____	_____
	1949	_____	_____	_____
	1950	_____	_____	_____
	1951	_____	_____	_____
	1952	_____	_____	_____
	1953	_____	_____	_____
	1954	_____	_____	_____

Beef Cattle grown:	1946	_____	_____	_____
	1947	_____	_____	_____
	1948	_____	_____	_____
	1949	_____	_____	_____
	1950	_____	_____	_____
	1951	_____	_____	_____
	1952	_____	_____	_____
	1953	_____	_____	_____
	1954	_____	_____	_____

Dairy Cattle grown:	1946	_____	_____	_____
	1947	_____	_____	_____
	1948	_____	_____	_____
	1949	_____	_____	_____

Dairy Cattle grown:	Year	No. Sold	No. Used Home	Total
	1950	_____	_____	_____
	1951	_____	_____	_____
	1952	_____	_____	_____
	1953	_____	_____	_____
	1954	_____	_____	_____

Poultry Disease	When started	When studied	How performed	Grew out of Evening School Instruction	Results
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Better feeding

Vaccination

Use of Medicine for Diarrhea and Roup

Poultry Production Culling Hens

Feeding and Egg Laying Rotation

Selection of Hybrids

Turkey Production

Selection of Broad Breasted Turkeys

Feeding May Turkeys for November Market

Poultry Disease (Continued)

Treating
Turkeys
for Blue
Comb

	When started	When studied	How per- formed	Grew out of Evening School Instruction	Results
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Swine
Production

Feeding Hogs
for Market

Swine
Production

Selecting Pure
Bred Hogs

Sanitation

Butchering

Beef Cattle

Feeding Beeves
for Market

Vaccination for
Black Leg
Anthrax

Pasture
Improvement

Winter Grazing

Milk Production

Feeding a Dairy
Ration

Growing Young
Heifers

Selecting a Dairy
Breed

Crop Production

Selection of Im-
proved seed

Treatment of Dis-
ease and Insects

Planting and Cul-
tivation

Use of Fertilizer

Landscaping--Selection
of Shrubbery

Treatment of Disease
and Insects affecting
Shrubbery

Home Vegetable
Garden

Fertilization

Planting and Cul-
tivation

Eradicating
Insects

Improving Nut and
Fruit trees

Budding and
Grafting
