8-15-1944

Evidences Of Effectiveness Of Instruction In Vocational Education In Agriculture In Houston County, Texas

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EVIDENCES OF EFFECTIVENESS OF INSTRUCTION IN VOCATIONAL EDUCATION IN AGRICULTURE IN HOUSTON COUNTY, TEXAS

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1944

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By

Henry Clay Langrum

A Thesis in Agricultural Education Submitted
in Partial Fulfillment of the Requirements for the
Degree of
Master of Science

in the
Graduate Division
of
Prairie View State Normal and Industrial College
Prairie View, Texas

August 15,1944

DEDICATED

To

My Mother and Wife

Mrs. Malissa Langrum and Mrs. Mabel Langrum

who encouraged me that I might

begin and continue

My Educational

Career

.....

H.C.L.

ACKNOWLEDGMENTS

The author acknowledges the assistance given him by Dr. E.M.Norris,Chairman of the Committee on Graduate Studies, also Chairman of his Advisory Committee, Prairie View State College, for directing the study and for his criticism of the procedures, data, and organization of subject matter, and Dr. H.A.Bullock, Professor of Sociology, Prairie View State College, for his assistance in arranging tabular references and for application of critical analysis.

BIOGRAPHICAL SKETCH

The author of this study was born at Fodice, Texas, February 25,1894. At the time of his birth, his parents, William and Malissa Langrum, were living on a small farm which they purchased in 1870. This homestead is still owned by the surviving heirs born to this union. He received his elementary training in the public school at Fodice, Texas; he entered Prairie View State Normal and Industrial College October 7,1911, from which school he completed his high school work in May 1912, and the Normal Course July 31,1914. He worked his way through college. During his junior year, 1912-1913, he was awarded a gold medal for the highest grade of any boy in school. He was president of the senior class year, 1913-1914.

His professional career began in October 1914 at Tadmore, Texas, now in the Kennard Consolidated School District, Kennard, Texas. He resigned this position after two weeks of service to accept the principalship at Sand Flat, a rural school four miles west of Athens, Texas. He served there until October 31, 1917 at which time he was called to the army where he advanced to the rank of sergeant; he served ten months overseas with the American Expeditionary Forces in France. He received his honorable discharge from the armed services at Camp Bowie, Waco,Texas, March 20, 1919. After having returned home from overseas, he accepted the princi-

palship of Fodice High School for the year beginning October 1,1919; while serving in that position he conducted a summer normal at Mary Allen College,Crockett,Texas, during the summer of 1920. He married Miss Mabel Tarver, November 24,1920. He attended Tuskegee Institute, Tuskegee, Alabama, on a General Education Board scholarship the summer of 1921 and taught in the summer normals at Prairie View College in 1922 and 1923. He entered the Cooperative Extension Service as County Agricultural Agent,resigning his position at Fodice, Texas, February 1, 1924. His connection with the Extension Service terminated July 31, 1933. He became principal of the Porter Spring Colored High School September 1, 1933. He received his B.S.Degree in Agriculture from Prairie View State College, August 10,1935, and resigned principalship of Porter Spring Colored High School in May 1936 to accept the Vocational Agriculture work in the same school July 1, 1936, which position he now holds. He began his graduate work at Prairie View State College in the summer of 1940.

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CHAPTER I

INTRODUCTION

During the past several years which have been marked by an increasing demand on part of the American public for economy, the field of secondary education has not been overlooked. Numerous questions respecting the extent to which the adoption of improved farm practices, general farming and farm improvements are and have been influenced by vocational agriculture instruction are being raised relative to the effectiveness of vocational agriculture instruction in the eight Negro school districts of Houston County, Texas, where vocational agriculture has been taught from three to twenty-two years.

A. Historical Background of Vocational Agriculture Education In The United States

There have been vast changes in agriculture in the United States in the past 150 years. These changes have been characterized by attitudes, institutions, and, as Paul H. Johnstone[1] points out, have influenced the very essence and character of rural living and even the philosophies, the ideas of right and wrong. In agriculture, new methods of cultivation were developed. Washington and Jefferson were among the first to put aside traditional prejudices and tackle agricultural prob-

1. Johnstone, Paul H., "Yearbook of Agriculture", Washington, D.C., United States Department of Agriculture, 1940, p.7.

lems scientifically.

One element in the background of rural America was a vigorous movement for self-education as a means of enriching life. There was an agitation for public schools and colleges to teach agricultural science. The Morrill Act of 1862 established the agricultural colleges. Education by this time had become more than a means of attaining culture. It was considered the road to social and economic advancement.

The "Success Philosophy" had begun to take root in this country. Thus farming came to be considered increasingly as a commercial pursuit rather than primarily as a way of living. Agricultural journals, schools, and colleges urged farmers to take the businessman as a model. As this viewpoint was more widely accepted, the whole picture of the farm enterprise changed. The farmer found himself faced with the business problems of the commercial world. He was forced to accept the methods of that world even though the frequent inequalities under which agriculture was practiced placed him at a disadvantage.

To keep pace with these changes of attitudes, relations of farmers and business, and the philosophy of success, Agricultural Education fostered the philosophy of commercial success. Although there was a group of educators, among them Kenyon Butterfield and Liberty Hyde Bailey[2], who emphasized

2."Yearbook of Agriculture", 1940,Washington,D.C.,United States Department of Agriculture, p.9.

cultural values in rural living, on the whole, the educational drive was strongly directed toward economic advancement based on scientific and technical progress.

In brief, ideas and ideals that had become dominant in the United States through commerce and industry inevitably spread to the farmer. Thus there had developed almost a complete reversal of many old customs and attitudes. Farmers no longer content with just growing the crops they needed for home use, but began commercialized farming in the production of cash crops and depended more upon the economic conditions of the world rather than upon their own independence. They gradually accepted urban standards of living instead of holding a disdain for it, they also considered no longer hard work and thrift as the primary virtues.

According to Johnstone[3], none of these changes took place universally and all at the same time, or without conflict and struggle. Indeed, the outstanding fact, he points out, is that changes have meant conflict and struggle, and are accompanied by a sense of uncertainty and fear.

The year 1862 saw the founding of Land Grant Colleges under the Morrill Act, and in 1887, under the Hatch Act, Congress authorized a national system of State experiment stations.

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3. Johnstone, Paul H., "Yearbook of Agriculture", Washington, D. C., United States Department Of Agriculture, 1940, P.9.

Meantime agricultural education went through a period of early growth with very limited funds until the Land Grant College Act granted large tracts of land to States to be used for establishing and maintaining agricultural and mechanical colleges. These colleges in turn sponsored agricultural courses in grade schools, beginning with Wisconsin in 1905, and eventually this led to the Smith-Hughes Act of 1917, granting Federal Funds to the States for agricultural education in secondary schools.

> "The passage of the Smith-Hughes Vocational Education Act practically created a system of vocational education of broad scope as a permanent part of the public school organization of the United States. The first meeting of the Federal Board for Vocational Education was held July 21, 1917, and the first bulletin was issued in November 1917. By January 1, 1918, each State in the union had through legislation of the governor accepted the provisions of the act, had submitted plans which met with the approval of the Federal Board, and had been certified to the Treasury for allotment for the fiscal year which ended June 30, 1918."[4]

4. True, A. C., "A History of Agriculture in United States 1785-1925," Washington, D. C., United States Printing Office, 1929, p. 326.

B. Historical Background Of Vocational Agriculture Education In Houston County, Texas

Records show that vocational agriculture instruction began in Houston County under the Smith-Hughes Act September 1,1922 at Fodice,Texas; seven other departments were established by 1941, and in the following order: Post Oak,1925; Gudeblye,1926; Friendship, (now Kennard) 1927; Lovelady, 1927; Porter Springs, 1930; Crockett, 1932; Glover, 1938; and Grapeland, 1941. Other agencies of an agricultural nature operating in the county are the agricultural and home agents of the Cooperative Agricultural Extension Service, Farm Security Administration supervisors,county, district, and community committeemen of the Agricultural Adjustment Agency, and personnel of the Soil Conservation Service.

These groups were organized October 1939 into a Houston County Vocational Workers Association. However,other groups such as the Chamber of Commerce, Commissioner's Court,Federal Land Bank,Productive Credit Association,and Smith-Hughes teachers of home making are represented in this county association of vocational workers. Programs are formulated on a county-wide basis for the development of agricultural enterprises and the adoption of improved methods of farming.

C. Purpose Of The Study

After twenty-two years of vocational agriculture instruction in the Negro schools of Houston County, it seemed wise to undertake an investigation to determine the extent to which instruction and supervised farming programs with adult evening school classes have influenced the adoption of improved farm and home practices.

D. Statement Of Problem

In this study, the writer proposes to answer the following question: What are the evidences that improved farming practices have been influenced through the teaching of votional agriculture in the school districts of Houston County?

E. Scope Of The Study

This study involves a survey of one hundred Negro farm families residing in the eight Negro school communities of Houston County, Texas, where vocational agriculture has been taught from three to twenty-two years.

F. Similar Studies

In order to get the necessary background of information for the study of this problem, similar and related studies were consulted. Myers[5] states that:

> "The effectiveness of vocational education in agriculture in selecting the students to be farmers, or in directing high school students into agricultural occupations has been measured repeatedly and consistently found highly satisfactory. Careful and comprehensive studies need to be made to determine the effectiveness of this instruction for improvement of the efficiency of these farmers and also what types of instruction are most effective. Such studies will be more difficult than occupational studies, but they should also be even more significant."

In a study embracing six townsites in Iowa, covering the effect of vocational agriculture upon the use of legumes, Hamlin[6] discovered that:

> "The instructed groups planted a higher percentage of tillable land in alfalfa, and the percentage of tillable land in legumes in the area served by the vocational agriculture departments was nearly three times as great as for the county as a whole. Subsequent surveys showed that those farmers within reach of vocational agriculture departments and receiving instruction continued to show an increase over the first survey in the percenttage of tillable land sown to legumes. For the county as a whole the increase in the percenttage of tillable land in legumes was negligible during the interim between the two surveys."

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[5] Myers, E.C., Effectiveness of Vocational Education in Agriculture, Washington, D. C. , Federal Board For Vocational Education, 1930, p. 40.

Dewolf[7] found that the effectiveness of vocational agriculture instruction is in direct proportion to the teacher's attitudes toward the work, his ability as a teacher, the amount of services he renders to the community, the spirit he has toward cooperating with related agencies, and to some extent his experiences.

Bunyard[8] stated that he found in his dairy enterprise in Central Iowa: "An increased number of evening school members began reading farm magazines, and 70 percent of the improved practices adopted the first year were traceable to the evening schools."

Dean[9] stated that:

> "Although the subjects taken up for discussion in the evening schools by the teachers were selected after individual conferences with the farmers who attended the schools, 60 percent of them objected to keeping records notwithstanding that 80 percent of the enrollment attended all the meetings and carried from two to five supervised practices as a result of the instruction."

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6 Hamlin, H.M., Measurement of Effects of School Instruction Through Changes in Community Practices, Thesis, University of Missouri Library, 1930.

7 Dewolf, Oscar Hall, Factors Influencing the Results of Instruction in Vocational Agriculture in Missouri, Thesis, University of Missouri Library, 1930.

8 Bunyard, Claude Lee, A Technique for Measuring the Effectiveness of Agricultural Evening Schools, Thesis, Ames, Iowa, Iowa State College Library, 1930.

9 Dean, Charles, Exavior, A Survey of Agricultural Instruction Offered in Evening Schools for Negro Farmers in North Carolina and Virginia, Ames, Iowa, Thesis, M. S., 1930.

G. Definition Of Terms

For the purpose of this study:

Education is thought of as the acquisition of knowledge, skill, and attitude and the application of these in the solution of farm problems. This knowledge, skill, or attitude may or may not be based upon high school or college training.

Instruction emphasizes the imparting of information and the development of skills and attitudes.

Effectiveness is a measure of the influence of vocational agriculture teaching on the adoption or improvement of farm and home practices in keeping with good farming techniques.

In order to be able to measure any material, activity, or concept, it is first necessary to be acquainted with the standards of measurement for the particular commodity, activity, or concept which is to be measured. A program of instruction in vocational agriculture is as effective as it influences the adoption and maintenance of the practices set up in its local goals and complies with the major objectives of vocational education in agriculture.

Tenure has to do with the type of operator whether owner, cash renter, third-and-fourth renter, or sharecropper.

School districts are referred to as communities. However, several of these schools are in the same geographical trade area.

CHAPTER II

COLLECTION AND COMPILATION OF DATA

A. Criteria For Selection

A set of criteria was decided upon for selecting farmers to be surveyed for this study.

A. To be selected, a farmer must have been:

1. a member of an evening school class
2. a resident-farmer of the school district in which he was surveyed, and
3. carrying a supervised farming program at the time he was surveyed.

B. Vocational agriculture teachers were asked to supply information respecting:

1. jobs taught and abilities developed, and
2. course content in relation to farmer-needs.

B. Source Of Data

Practically all sections of the county were represented in the survey with the exception of those in the extreme southwest and extreme northwest portions where no vocational agriculture departments have been established. All of the farmers included in this survey live in the East, Southeast, Northeast, and west central sections of the county.

Information on phases relevant to the problem was secured from questionnaires, notes made on personal visits, interviews, and reports in the State Office of the Board of Vocational Education of Texas, and from general observations. Farmers, vocational agriculture teachers, and operators of business enterprises were interviewed. The bulletin, "Agricultural Situation", of the bureau of Agricultural Economics, was used to ascertain the demand of the buying public generally. The latter source was used primarily in ascertaining the Nation's needs thereby permitting the planning of farm programs in Houston County around those commodities for which there was the greatest demand. The Texas agriculture section of the 16th census of the United States, the files of the County Extension Agent's Office, Soil Conservation Service, Agricultural Adjustment Agency, and Farm Security records also furnished valuable assistance in securing data for measuring the effectiveness of vocational agriculture instruction based on progress reports of farmers participating in the programs of afore mentioned agencies and institutions.

C. Construction Of The Survey Schedule

During September and October of 1941, the author made several farm and home visits, interviewing individuals, located in his and the other school districts, who had been picked at random from evening school class rolls, in an effort to determine the type of information which should be secured from the farmers for measuring the effectiveness of vocational agriculture instruction through the adoption of improved farming practices. Prior to the visits, considerable time was spent in studying and devising schedules that might meet demands of the study. A copy of the forms finally decided upon are shown in appendices S and T.

The period over which data for this study were collected covered the major part of two crop seasons. Some of the farm and home practices improved were begun and finished in this period; some were continuation projects from previous years while others are now in progress but sufficiently advanced to be classified as improved practices.

Exaggeration, of facts in information supplied by vocational agriculture teachers to boost the ratings of their respective departments, was discouraged.

D. Collection Of Data

A survey was made of 100 farmers residing in eight school districts of Houston County where Negro vocational agriculture departments were established. The field work for the study began in July 1941 and ended July 1942. The listings of the activities covered in this period of twelve months are indicative of what the general program of work was centered around.

The securing of the data for the study, to determine the effectiveness of the vocational agriculture instruction in these school districts, required detail planning. The following procedure was used:

1. grouping the farmers surveyed according to tenure;
2. listing farm practices improvable as checked on inquiry forms by the farmers in an effort to ascertain the point of emphasis that should be made to encourage the adoption of farm practices to efficient production;
3. listings of the frequency of farm problems needing solution as expressed by the farmers' answers in the questionnaires;
4. ascertaining the number, kind, and scope of farm practices improvable;
5. ascertaining the hindrances encountered or factors

preventing satisfactory adoption or supervised farming programs, and

6. checking other practices and activities which were not considered by the farmers as major difficulties, but which did reflect instructional value.

E. Tabulation Of Data

In order to get a true picture of the activities of the survey, a plan was devised whereby the inquiry forms from the school districts were grouped separately and entered on a summary sheet designed for recording all necessary information to be included in the survey. The improved practices of highest frequency were divided into six groups, namely: soil conservation, livestock improvement, poultry improvement, field crops, home orchards, and home improvement. A check was made of the vocational agriculture teachers' course content to ascertain whether the evening school topics for discussion corresponded with the data included in the survey. Summaries by school districts were made, and a general summary for the 100 farmers surveyed was compiled. Index numbers were given each farmer and information on him was entered upon the tabulation sheet.

Because of differences in the interpretation of certain questions asked, and of the limited academic training of some of some of the farmers surveyed, there were some misgivings respecting the correctness of some of the statements, but averages were set up and calculations made on the type of question answered to determine the validity of the answers before making final entries on the summary sheet. Most frequent occurrences of this nature appeared in the section under soil conservation where both acres terraced and number of yards

of terrace lines run were submitted. The writer having had extended experience in terracing land in Houston County evaluated in acres the yards reported and entered this item as acres terraced. Since this study was based upon monetary advancement, efforts were made to secure such information as would be necessary in making proper calculation from data submitted.

CHAPTER III

ANALYSIS AND INTERPRETATION OF DATA

A. General Information

> "Effectiveness of vocational agriculture education instruction with evening school class members in a community involves both the instructor and the farmer instructed. If the farmer fails to grasp fully and use wisely the instruction given in the evening school classes, or if the teacher fails to instruct efficiently the farmers on the bases of their needs, the effectiveness of the program will exert a proportionate influence for agricultural education in that community where the agricultural department is established."[10]

But with the supervised farming program in operation, this element of doubt is eliminated, for in the process of "learning to do by doing"[11] involving both instructor and student, when an ability is developed, the teacher has taught and the student has learned. Therefore, to measure the effectiveness of vocational agriculture instruction in a given school or schools, specific standards are necessary for guides. To determine the extent to which vocational agriculture instruction has been effective in Houston County Negro schools, the following procedures were used in analyzing and interpreting the data found in the survey.

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[10] Supervised and Directed Evening School Practices, Washington, D. C. , Federal Board For Vocational Education, 1930, p. 9.

1. The major objectives of education in vocational agriculture were used as a guide to determine the effect of instruction as reflected in the farmers' reactions to adopt farm and home practices.

2. Evidence factors were set up to determine whether these major objectives have been reached through this type of organized instruction by evening school members surveyed.

3. Evaluation of factors of evidence was computed on the basis of prevailing government and local prices of commodities and services rendered at the time the surveys were made.

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[11] Educational Objectives In Vocational Education In Agriculture, Washington, D. C. , Federal Board For Vocational Education, 1930, p.5.

B. Criteria

The major objectives of vocational education in agriculture are to develop effective abilities to:[12]

1. make a beginning and advance in farming;
2. produce farm commodities efficiently;
3. market farm products advantageously;
4. conserve soil and other natural resources;
5. manage a farm business, and
6. maintain a favorable environment.

C. Factors of Evidence

The study was confined to practices improved, with monetary evaluations, in the following enterprises as factors of evidence:

1. Soil Conservation
2. Livestock Improvement
3. Poultry Improvement
4. Field Crops
5. Home Orchards
6. Home Improvement

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[12] Training Objectives In Vocational Education In Agriculture, Washington, D. C. ,Federal Board For Vocational Education, 1930, p.8.

Before undertaking to analysyze and interpret the data on evidence factors used for measuring effectiveness of instruction in vocational education in agriculture with the group studied, it is important that certain information bearing upon the social and economic background of these men and their families be considered.

The surveu shows that these men are heads of families which range in size from two to twelve with an average size of five. The aggregate family membership was 547.

Tenure as farm operators is distributed as follows: owners, 60; third-and-fourth renters, 29; cash renters,9; and sharecroppers,2.

Eighty eight subscribed for farm magazines and 74 subscribed for daily newspapers.

They owned 48 cars and 74 radios.

The aggregate farm operating expenses for the 12 months' period were $15,218.48 or an average of $152.18 per family.

Further information concerning their social and economic background is given in appendices K and L.

D. Production Enterprises Studied As Evidence Factors

In keeping with the criteria objectives of vocational education in agriculture for measuring evidence factors for effectiveness of instruction, it may be well to restate here that each farmer surveyed was an evening school member who carried a supervised farming program, and, therefore, was established in farming.

The enterprises studied as evidence factors for determining the effectiveness of vocational agriculture instruction are shown in Table 1.

TABLE I

DISTRIBUTION OF FAMILIES BY TYPES AND SCOPE OF ENTERPRISE PRACTICES IMPROVED

Enterprises	No Families Participating	No of Types of Practices Improved	Scope of Practices Improved
Soil Conservation	53	5	1,715 Acres
Livestock Improvement	65	10	1,857 Head
Poultry Improvement	73	9	4,706 Head
Home Orchards	35	4	1,404 Trees
			386 Acres
Field Crops	59	6	112 Bus.
			19 Hotbeds
			20 Toilets
Home Improvement	39	3	16 Homes
			62 Screens

In the discussion which follows, an attempt is made to analyze and interpret abilities acquired based on the knowledge of the farmers to recognize problems and their efforts to improve practices in given enterprises.

As pointed out by Schmidt and Ross[13], "The best time for any one to learn anything is when he needs it. This is the basis of the fundamental argument for adult education."

This analysis was limited to six farm enterprises and involved the number of families participating, types of practices improved, and scope of practices improved. There was a total of 37 practices improved. The number of types of practices varied by enterprises.

Table I page 21 shows a variance in the number of families participating by enterprises. A family was counted only once regardless of the number in it. Four of the enterprises had more than 50 families each improving practices distributed as follows: poultry improvement, 73; livestock improvement, 65; field crops, 59; and soil conservation,53. Livestock and poultry had the greatest number of types of practices improved with ten and nine respectively.

Table II page 23 shows a general working analysis of all the production enterprises studied. The kinds of practices improved, number of units improved, number of families reported for each practice improved, and the average number of units improved per family are shown. A basis for analyzing and interpreting the data from a relative participation point of view is evident.

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13 Schmidt and Ross, Teaching Evening and Part-time Classes In Vocational Agriculture, New York, The Century Company, 1932, p.124.

TABLE II

ANALYSIS OF ENTERPRISES BY TYPES AND SCOPE OF PRACTICES IMPROVED, FAMILIES REPRESENTED, AND AVERAGE SCOPE OF PRACTICES IMPROVED PER FAMILY

Types of Practices Improved By Enterprises	Units Improved	Families Represented	Av. No Units Improved Per Family
Soil Conservation			
1. Terracing	692 Acres	23	30.1 Acres
2. Contour cultivation	498 ..	28	10.6 ..
3. Cover crops	218 ..	14	15.6 ..
4. Pasture improvement	167 ..	10	16.7 ..
5. Crop rotation	140 ..	5	28.0 ..
Livestock Improvement			
1. Vaccination	988 Head	50	20 Head
2. Worming	330 ..	14	24 ..
3. Feeding	174 ..	5	35 ..
4. Fitting and showing	136 ..	24	6 ..
5. Judging and selecting	108 ..	4	27 ..
6. Castration	54 ..	7	8 ..
7. Breeding	41 ..	4	10 ..
8. Insect control	22 ..	3	7 ..
9. Disease control	3 ..	1	1 ..
10. House construction	1 House	1	1 House
Poultry Improvement			
1. Vaccination	20 Head	2	10 Head
2. Worming	3,313 ..	60	55 ..
3. Breeding	214 ..	8	36 ..
4. Feeding	346 ..	12	29 ..
5. Insect control	352 ..	11	32 ..
6. Disease control	335 ..	4	84 ..
7. Fitting and showing	126 ..	13	10 ..
8. Egg candling	87 Dozen	10	8 Dozen
9. Egg grading	118 ..	16	8 ..
Field Crops			
1. Winter breaking land	208 Acres	14	15 Acres
2. Cash crops other than cotton	187 ..	25	5 ..
3. Seed selection	66 Bushels	19	3 Bushels
4. Seed inoculation	35 ..	17	2 ..
5. Seed testing	11 ..	2	5 ..
6. Hotbed construction	19 Hotbeds	14	1 Hotbed
Home Orchards			
1. Budding	12 Trees	3	4 Trees
2. Grafting	4 ..	3	1 ..
3. Pruning	641 ..	27	24 ..
4. Spraying	747	27	28 ..
Home Improvement			
1. Painting	16 Homes	16	1 Home
2. Whitewashing	20 Toilets	20	1 Toilet
3. Screening	62 Screens	19	3 Screens

E. Soil Conservation

Soil conservation must make use of a wide variety of corrective measures which should be adopted to local conditions. Although the immediate effects of conservation practices in crop yields are of less importance that the lasting benefits to crop production, certain practices will modify yields appreciably the first year.

In July, 1941 when this investigation began, it was observed on personal visits to a number of those farms that conservation practices in soils consisted of terracing, contour cultivation, crop rotation, use of cover crops, and a few cases of pasture improvement.

Table III shows the distribution of types and scope of practices improved by the 100 farmers surveyed.

TABLE III

ANALYSIS OF SOIL CONSERVATION BY TYPES AND SCOPE OF PRACTICES IMPROVED, FAMILIES REPRESENTED, AND AVERAGE SCOPE OF PRACTICES IMPROVED PER FAMILY

Types of Practices Improved	Units Improved	Families Represented	Average Number of Units Improved Per Family
Soil Conservation			
1. Terracing	692 Acres	23	30.1 Acres
2. Contour Cultivation	498 ..	28	10.6 ..
3. Cover crops	218 ..	14	15.6 ..
4. Pasture Improvement	167 ..	10	16.7 ..
5. Crop Rotation	140 ..	5	28.0 ..

The aggregate number of acres improved through soil conservation practices was 1,715. The order in which these practices improved ranked according to the number of

families represented is as follows: contour cultivation, 28; terracing, 23; cover crops, 14; pasture improvement, 10; and crop rotation, 5. The average number of units improved per family reporting was: terracing 30.1 acres; crop rotation, 28 acres; pasture improvement, 16.7 acres; cover crops, 15.6 acres, and contour cultivation, 10.6 acres.

F. Livestock Improvement

It is shown in Table IV that there were 1,856 head of livestock,including cattle, horses, and hogs, handled, and one hog house constructed in the improvement of livestock production. Of the ten practices improved, there were the greatest number of families participating in vaccination and fitting and showing. However, the highest average number of units improved per family was in the practices of feeding and judging and selection. Although feeding ranks fifth in the number of families participating in improving this practice, it holds third place in the number of units improved, and first place in the average number of units improved per family.

TABLE IV

ANALYSIS OF LIVESTOCK IMPROVEMENT BY TYPES AND SCOPE OF PRACTICES IMPROVED, FAMILIES REPRESENTED, AND AVERAGE SCOPE OF PRACTICES IMPROVED PER FAMILY

Types of Practices Improved	Units Improved	Families Represented	Average Number Units Improved Per Family
Livestock Improvement			
1. Vaccination	988 Head	50	20 Head
2. Worming	330 Head	14	24 Head
3. Feeding	174 Head	5	35 Head
4. Fitting and Showing	136 Head	24	6 Head
5. Judging and Selecting	108 Head	4	27 Head
6. Castration	54 Head	7	8 Head
7. Breeding	41 Head	4	10 Head
8. Insect control+	22 Head	3	7 Head
9. Disease control	3 Head	1	3 Head
10. House Construction	1 House	1	1 House

+As distinguished from disease control by vaccination and worming. It is the use of repellants and drenching.

This distribution indicates the phases of interest in improving practices of this enterprise as revealed in the number of participating families, of the 100 farmers surveyed.

G. Poultry Improvement

Four thousand seven hundred six birds were treated or otherwise handled in this production enterprise. The largest number of birds was treated for worms. The largest number of families participated in this practice of improvement.

Table V shows the analysis of this enterprise by types and scope of practices improved, families represented, and average scope of practices improved per family.

TABLE V

ANALYSIS OF POULTRY IMPROVEMENT BY TYPES AND SCOPE OF PRACTICES IMPROVED, FAMILIES REPRESENTED, AND AVERAGE SCOPE OF PRACTICES IMPROVED PER FAMILY

Types of Practices Improved	Units Improved	Families Represented	Av.No Units Improved Per Family
Poultry Improvement			
1.Vaccination	20 Head	2	10 Head
2.Worming	3,313 ..	60	55 ..
3.Breeding	214 ..	8	36 ..
4.Feeding	346 ..	12	29 ..
5.Insect control*	352 ..	11	32 ..
6.Disease control*	335 ..	4	84 ..
7.Fitting & Showing	126 ..	13	10 ..
8.Egg candling	87 Dozen	10	9 ..
9.Egg grading	118 ..	16	8 ..

*As distinguished from insect and disease control by vaccination and worming. It is dusting and spraying birds, roosts,walls,floors,and ceilings, and the use of both liquid and powdered medicines in drinking water and feed.

Worming is predominantly used as a precautionary measure in controlling certain diseases in the flock with 60 persons treating an average of 55 birds each. The highest average number of birds treated per family was for disease control, with four families treating an average of 84 birds each.

H. Field Crops

This enterprise was broken down into six improved practice groups: (1) winter breaking of land, (2) cash crops other than cotton, (3) seed selection, (4) and seed inoculation, (5) seed testing, and (6) hotbed construction. As shown in Table VI this group includes three basic factors for efficient production and farm management as observed in the frequency of farmer-interest in soil preparation, cash crops other than cotton, and seed selection and treatment. These practices were used by 14 to 25 per cent of all farmers surveyed.

TABLE VI

ANALYSIS OF THE FIELD CROP ENTERPRISE BY TYPES AND SCOPE PRACTICES IMPROVED, FAMILIES REPRESENTED, AND AVERAGE SCOPE OF PRACTICES IMPROVED PER FAMILY

Types of Practices Improved	Units Improved	Families Represented	Average Number Practices Improved Per Family
Field Crops			
1. Winter breaking of land	208 Acres	14	15 Acres
2. Cash crops other than cotton	187 Acres	25	5 Acres
3. Seed selection	66 Bushels	19	3 Bushels
4. Seed inoculation	35 Bushels	17	2 Bushels
5. Seed testing	11 Bushels	2	5 Bushels
6. Hotbed construction	19 Hotbeds	14	1 Hotbed

Winter breaking of land was practiced by 14 families who broke an average of 15 acres each or a total of 208 acres. The practices designed to improve seed through selection, inoculation, and testing were participated in by 38 of the 100 farmers surveyed.These efforts to:(1)improve soil texture

A small margin is shown between the number of acres winter broken and the number of acres planted to cash crops other than cotton.

The 19 hotbeds were constructed by and used by 14 families.

The cash crops other than cotton most common to Houston County are: tomatoes, blackeyed peas, white and sweet potatoes, peanuts, and sugar cane for syrup. The average acreage per family devoted to this practice was five. Twenty-five families planted crops or this type.

14. Burkett, Charles Williams, "Farm Crops", New York, Orange Judd Company, 1913, p.4.

I. Home Orchards

Operative skills were developed in the four practices improved. Four types of practices were improved with 1,404 trees. They were budded, grafted, pruned, and sprayed. In some instances, as revealed by the survey, all four practices were carried out on the same farm by the same family. Data on home orchard improvement are shown in Table VII.

TABLE VII

ANALYSIS OF THE HOME ORCHARD ENTERPRISE BY TYPES AND SCOPE OF PRACTICES IMPROVED, FAMILIES REPRESENTED, AND AVERAGE SCOPE OF PRACTICES IMPROVED PER FAMILY

Types of Practices Improved	Units Improved	Families Represented	Average Number of Practices Improved Per Family
Home Orchards			
1. Budding	12 Trees	3	4 Trees
2. Grafting	4 Trees	3	1 Tree
3. Pruning	641 Trees	27	24 Trees
4. Spraying	747 Trees	27	28 Trees

Of the 1,404 trees improved, 45.6 per cent were pruned and 53.6 per cent were sprayed. The ratio of the number of families budding and grafting trees to the number of families pruning and spraying trees is 1:9.

J. Home Improvement

Although not listed as types of improved practices as evidence factors in home improvement, a review of the questionnaires and notes from observation reveal that several homes were landscaped; yards levelled, shrubs, flowers, and trees were planted and transplanted, lawns sodded and mowed, drainage ditches opened and maintained, steps made and installed, roofs of houses both repaired and covered completely. All these improved practices were found in most of the twenty homes participating in the other three improved practices given in Table VIII.

TABLE VIII

ANALYSIS OF HOME IMPROVEMENT, TYPES AND SCOPE OF PRACTICES IMPROVED FAMILIES REPRESENTED AND AVERAGE SCOPE OF PRACTICES IMPROVED PER FAMILY

Types of Practices Improved	Units Improved	Families Represented	Average Number of Practices Per Family
Home Improvement			
1. Painting	16 homes	16	1 home
2. Whitewashing	20 toilets	20	1 toilet
3. Screening	62 screens	19	3 screens

Practices improved in this enterprise for which there were most tabulated data are: painting, whitewashing, and screening.

The average units improved per family reporting in those practices are for: painting, 1; whitewashing, 1; and screening, 3.

The survey shows that 16 families adopted all these im-

proved practices. Schmidt[15] states that:

> "Favorable environment condition attitudes, and that something is really learned when it influences one's action, one's thinking, or one's attitude toward things in general in such a way that the individual from a social point of view is a better individual than he formerly was."

15. Schmidt, G.A., "Teaching Evening School and Part-time Classes", New York, The Century Company, 1931, p.10.

K. Farm Problems Revealed

The author sought in his study to: (1) discover the farm problems presenting the greatest difficulty for solution, (2) ascertain the farmers' opinions respecting their progress in their farm business, and (3) find the points of attack which could be used by the vocational teachers in offering solutions for the problems discovered.

The investigation of the 100 farmers surveyed showed a check of 190 problems presenting difficulty for solution distributed as follows on a percentage basis of all problems checked by farmers; farm planning, 54 per cent; farm credit, 19.2 per cent; insect and disease control, 12.6 per cent; poor land, 10 per cent, and overflows and droughts, 4.2 per cent.

The records in the files of the vocational agriculture teacher's department of the school districts in which these surveys were made and the survey of the vocational agriculture teachers' course outlines showed that the foregoing problems were included in their respective programs of work covering the period prior to and during the time this study was being made.

The fact that the farmers recognized these problems and efforts to solve them through the adoption of improved practices reflect an attitude of cooperation between the vocational agriculture teachers and farmers, for as J. C.

Wright[16] states:

> "Problems in supervised practice are not formulated by the teacher or studied for their own sake, but they are dealt with because they occur as factors and difficulties in real farm jobs. In improving these practices, knowledge was sought for its use and not simply for its sake. According to the psychological law of effect, learning progresses in proportion to satisfying outcomes. Success with projects and practices not only helps to insure effective learning, but it spurs the learner on to greater understanding so that the results of such procedures are cumulative."

The problems were divided into five groups with a range of frequency of occurrence by groups from 4.2 per cent to 54 per cent and a range of frequency of problems of all groups from 1.6 per cent to 26.8 per cent. Problems grouped were as follows: farm planning, 54 per cent; farm credit, 19.2 per cent; insect and disease control, 12.6 per cent; poor land, 10 per cent; and overflows and droughts, 4.2 per cent. Farm planning not only showed the greatest number of problems, but also the highest per cent of frequency. The six, in this group, out of the twelve problems in all listed for solution, represent 54 per cent of occurrence of all problems.

Too few cash crops head the list with 26.8 per cent of

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[16] Wright, J. C., Supervised Practice in Agriculture Including Home Projects, Washington, D. C. Federal Board for Vocational Education, 1930, p. 2.

total problems. Fifty-one farmers expressed in their answers to the investigation that their incomes were being limited by this difficulty. Eleven of the twelve problems listed were placed for primary solution under the educational approach of attack for solution. The twelfth problem, overflows and droughts, was placed in the natural cause group. Overflows may be overcome in some instances as well as droughts, but in either case, the magnitude of the task necessitates cooperation of many.

It is usually solved through government agencies by building levees, dams, and in case of droughts providing water supply and irrigation ditches.

The farms reporting were not so located in watershed areas for the profitable building of levees and providing ditches.

Table IX shows the problems presenting the greatest difficulties for solution and the distribution of them on the basis of frequency of occurrence. It also shows the groupings for the points of attack for solution. Most of the problems are grouped for solution in an educational approach. Knudson[17] states: "It should be remembered that difficulty in and of itself is not educative, but on the other hand, overcoming difficulty may be highly educative."

TABLE IX

DISTRIBUTION OF FARM PROBLEMS ON THE BASIS OF PERCENTAGE OF FREQUENCY OF OCCURRENCE IN THE SURVEY AND ON THE POINTS OF ATTACK FOR SOLUTION

Problems	Percentage of Frequency of Occurrence		Points of Attack for solution of problems		
			Edu.	Monetary	Natural
Farm Planning					
1.Unbalanced program	16.6		32		
2.Poor Care of tools	6.9		13		
3.Too few cash crops	26.8		51		
4.Over cropping	1.6		3		
5.Under cropping	2.0	54.0	4		
Farm Credit					
1.Finance	11.1		21**	21**	
2.Team	3.2		6**	6**	
3.Equipment	4.9	19.2	9**	9**	
Insect and Disease Control					
1.Harmful insects	6.3		12*	12**	12**
2.Plant and animal diseases	6.3	12.6	12*	12**	12**
Poor Land	10.0	10.0	19		
Overflows & Droughts	4.2	4.2			8
Total	100.0	100.0	146	36	8

*Problems may be solved by approaches indicated, but
** Do not add numbers so indicated in respective columns.

17 Knudson, C. W. , Evaluation and Improvement of Teaching Garden City, New York, Doubleday Dorn Publishing Company, 1932, p. 11.

Table X shows the distribution of the degree of interest of participating families, number of practices improved, and units of practices improved by enterprises. It will be noted that enterprises having the greatest number of participating families do not always have the greatest number of practices to improve. Poultry improvement does not only show the greatest number of participating families, but also shows the greatest number of total units of practices improved.

TABLE X

DISTRIBUTION OF ENTERPRISES ON BASES OF RANK, NUMBER OF PARTICIPATING FAMILIES AND PRACTICES IMPROVED

Enterprise	Rank	Participating Families	Rank	Practices Improved
Poultry Improvement	1	73	2	9
Livestocl Improvemt	2	65	1	10
Field Crops	3	59	3	6
Soil Conservation	4	53	4	5
Home Improvement	5	39	6	3
Home Orchards	6	35	5	4

TABLE XI

DISTRIBUTION OF INCREASED PRODUCTION BY ENTERPRISE, FAMILIES REPRESENTED, TOTAL AND FAMILY AVERAGE

Enterprise	Families Represented	Increased Production	
		Total	Av.Per Family
Livestock Improvement	65	$25,275.00	$388.85
Field Crops	59	4,260.50	72.21
Home Orchards	35	2,808.00	80.25
Soil Conservation	53	2,548.00	48.08
Poultry Improvement	73	1,954.00	26.77
Home Improvement	39	1,728.50	44.32

In Table XI is shown that livestock improvement exceeds the total of the other five enterprises. Poultry, although has the largest number of families participating shows the lowest family average income from the enterprise.

L. Monetary Evaluations Of Practices Improved

To evaluate, on a monetary or percentage basis, commodities, services or other units of different nature and commercial values, it is necessary to reduce same to some kind of common factor.

In an attempt to evaluate for percentage of participation and percentage of unit values to determine the proportionate contribution of the respective participants and units of practices to the development of an enterprise or an enterprise to the development of a farming program, the following course of reasoning was used as a procedure:

1. The improvement of any unit of practice is an improvement of the enterprise of which it is a part.

2. Participating personnel improving units in a practice contribute to the improvement of that enterprise in proportion to the number of units and respective unit values they improve.

3. If units of different practices and of different values but all of the same enterprise are improved, they contribute to the enterprise development on a proportionate basis of the respective unit values.

In Table XII is shown an effort to evaluate the practices improved as services rendered in the development of supervised farming programs over the period of twelve months from July 1941 to July 1942 by the 100 farmers surveyed. It

shows the monetary evaluations of thirty seven improved practices of the six farm enterprises analyzed. There were ten different types of units of practices: acres of land, heads of livestock and poultry, dozens of eggs, hot-beds, houses,toilets, trees, bushels, homes, and screens, with each having different values.

For the purpose of this study, these ten units were classified and evaluated according to the:

1. point of view for improving, whether for immediate or lasting effect;

2. ability necessary to acquire the skill to improve the unit;

3. contribution made to the development of the practice or enterprise;

4. commercial value of the unit improved;

5. service value to the practice or enterprise of the unit improved;

6. amount of saving or investment realized in improving the unit;

7. production or conservation value of the unit improved;

8. size,weight,grade, and breed in livestock and poultry;

9. lowest estimate on quantity of one crop of fruit on one tree in the home orchards;

10. prevailing prices per bushel of the different kinds of seed as such in the field crops:

11. dimensions and quality of material as such in hog house and hotbed construction.
12. dimensions and quality of material used as such in home improvement.

TABLE XII

DISTRIBUTION OF MONETARY EVALUATIONS OF PRACTICES IMPROVED BY ENTERPRISES

Types of Practices Improved By Enterprises	Units Improved				
	Scope Units		Unit Values	Total Value	Enterprise Value
Soil Conservation					
1.Terracing	692	Acres	$2.50	$1,730.00	
2.Contour cultivation	498	..	.50	249.00	
3.Cover crops	218	..	.50	109.00	
4.Pasture improvement	167	..	1.50	250.50	
5.Crop rotation	140	..	1.50	210.00	$ 2,548.00
Livestock Improvement					
1.Vaccination	988	Head	$20.00	$19760.00	
2.Worming	330	..	5.00	1650.00	
3.Feeding	174	..	10.00	1740.00	
4.Fitting and showing	136	..	5.00	680.00	
5.Judging and selectng	108	..	5.00	540.00	
6.Castration	54	..	5.00	270.00	
7.Breeding	41	..	10.00	410.00	
8.Insect control	22	..	2.50	55.00	
9.Disease control	3	..	35.00	105.00	
10.Hog House Constructn	1	House	15.00	15.00	25,225.00
Poultry Improvement					
1.Vaccination	20	Head	.75	15.00	
2.Worming	3,313	..	.75	628.25	
3.Breeding	214	..	.75	160.50	
4.Feeding	346	..	.75	259.50	
5.Insect control	352	..	.75	264.00	
6.Disease control	335	..	.75	251.25	
7.Fitting and showing	126	..	.75	93.50	
8.Egg candling	87	Dozen	.40	34.80	
9.Egg grading	118	..	.40	47.20	1,754.00
Field Crops					
1.Winter breaking land	208	Acres	10.00	2080.00	
2.Cash crops	187	..	10.00	1870.00	
3.Seed selection	66	Bus.	1.50	99.00	
4.Seed inoculation	35	..	1.50	52.50	
5.Seed testing	11	..	1.50	16.50	
6.Hotbed construction	19	Hotbds	7.50	142.50	4,260.00
Home Orchards					
1.Budding	12	Trees	2.00	24.00	
2.Grafting	4	..	2.00	8.00	
3.Pruning	641	..	2.00	1282.00	
4.Spraying	747	..	2.00	1494.00	2,808.00
Home Improvement					
1.Painting	16	Homes	100.00	1600.00	
2.Whitewashing	20	Toilets	1.00	20.00	
3.Screening	62	Scrns	1.75	108.50	1,728.50
Grand total for all enterprises					$37,323.50

CHAPTER IV

SUMMARY OF FINDINGS AND CONCLUSION

A. Summary Of Findings

The survey revealed that there were 319 farmers enrolled in Evening School classes of the eight school districts included in this study, and that 346 farmers in these school districts were not enrolled in Evening School classes. It is shown that 52 percent of the farmers in these school districts are not enrolled in this type of organized instruction. No check was made of these farmers who were not enrolled respecting their problems or successes. The purpose of the study was to ascertain how well the instructions to the organized group reflected improvement with the number and kinds of practices improved. The monetary evaluations of the practices improved were compared with the average gross income of all farmers of the Southwest region for the same period as shown by the 16th census of the United States.

In an effort to determine the effectiveness of vocational agriculture instruction in the eight school districts of Houston County, a study was made of the supervised farming programs of 100 of these 319 farmers enrolled in Evening School classes and of the programs of work of the eight vocational agriculture teachers employed in these schools. Effectiveness of instruction was to be determined by: (1) the number and kinds of enterprise practices improved as a result

of instruction received in the evening school classes evaluated from a monetary standpoint on the basis of allowances for production and conservation practices of the Agricultural Adjustment Agency for the years 1941,1942,and 1943, and on the prevailing prices of commodities and services rendered on a local commercial basis, (2) the conformity of the course content of the vocational agriculture teachers to the expressed opinions of farmers surveyed respecting problems presenting the greatest difficulty for solution, and (3) ascertaining the farmers' attitudes respecting cooperative efforts in solving farm problems on the basis of instruction and their reactions as reflected in the maintenance of a favorable environment.

The answers to three questions were sought: (1) how much money has been made or saved because of the instruction? (2) how well has instruction been given in keeping with local farmers' needs? and (3) how have farmers reacted to progress generally?

The 100 farmers were found to be engaged in a diversity of activities of which an investigation was made of six of their major farm enterprises: soil conservation,livestock improvement, poultry improvement, field crops, home orchards, and home improvement. It was found that,in the six enterprises, they were improving thirty seven practices in their

supervised farming programs under the supervision of their respective vocational agriculture teachers. An evaluation of these practices improved was based on the production and conservation practices allowances of the Agricultural Adjustment Agency for the years 1941,1942,and 1943. Hand Books for this agency for those years were used in computing the evaluations; also prevailing local prices for commodities and services rendered for these respective units of practices in the various enterprises were used in making evaluations.

The thirty seven practices improved were distributed by enterprises as follows: soil conservation, 5; livestock improvement, 10; poultry improvement, 9; field crops, 6; home orchards, 4; and home improvement, 3.

The evaluations of practices improved were: soil conservation, $2,548.00; livestock improvement, $25,275.00; poultry improvement, $1,954.00; field crops, $4,260.50; home orchards, $2,808.00, and home improvement, $1,728.50. The total monetary evaluations for improved practices in the six farm enterprises was $38,574.00, or an average of $385.74 for each of the 100 farmers surveyed.

In a release from the Soil Conservation Service,dated February 11,1944, the report,"Increased Production Survey", states that the increased production for 475 farmers in the region comprising the states of Texas, Oklahoma, Arkansas, and Louisana, represented a saving of $58,250.00.

This is an average of $123.00 increased production per farmer reporting on improved practices. This region, however, covers a very much wider area also a wider range of soil types and climatic conditions presenting all kinds of problems and enterprises than that included in the area of the 100 Negro farmers surveyed for this study in Houston County, Texas.

The survey of the vocational agriculture teachers' programs of work showed that the twelve problems, listed by the 100 farmers as presenting difficulties for solution, were included in the evening school class instruction. The problems listed were selected from the enterprises which were included in the supervised farming programs. Seventy seven percent of the problems were designated for solution under the educational approach, 19 percent under the monetary approach, and four percent of them were classified as due to natural causes, hence, no specific solution designed for their solution in this geographical area.

Home improvement practices were primarily in painting, whitewashing, and screening. They reflect an awakening to the consciousness that status as a worthy citizen in a community is implemented through improvement in the home environment. The investigation, including the questionnaires, and personal observations, revealed that in addition to the three primary practices improved that there were many yards landscaped: shrubs and flowers planted and transplanted; lawns levelled, sodded, and mowed; and drainage ditches opened and maintained. Steps were repaired and replaced with

new ones, and roofs of dwellings repaired and new ones put on.

B. Conclusion

On the bases of information revealed, there is a great opportunity for training in the phases indicated for solution through an educational approach. It is shown by the nature of the 77 percent of the difficulties recognized by the 100 farmers that concentration of efforts in both planning and improving are within the scope of activities for which skills may be acquired and abilities developed.

It is indicated that the philosophy of success based on monetary gains was envisioned by only 25 percent of farmers surveyed as evidenced in the fact that they planted cash crops other than cotton and even in that effort there was only an average of 6.6 acres per family devoted to this practice.

The amount of financial outlay for operational expenses based on an average of $152.18 per family as shown in appendix L indicates one of two conclusions: (1) a clinging to the tradition of self sufficing farming, or (2) a prevalence of a low standard of living derived from farming on the part of the farmers surveyed. If either or both conditions obtain, herein lies a body of knowledge which vocational agriculture teachers may recognize and prepare to reckon with in planning succeeding farming programs of work with the cooperative efforts of evening school members.

RECOMMENDATIONS

1. A farm-unit plan involving all general farming enterprises of the immediate vicinity should be encouraged by vocational agriculture teachers in their respective evening school classes.
2. The scope of instruction should be so planned by vocational agriculture teachers that margins of profit may be realized because of the increased production made possible through adoption of improved farm practices.
3. A community should be made conscious of all current agricultural problems which arise in the local situation.
4. Systematic reading courses so planned for all adults in a community to cover all farm practices improvable should be made a part of the department's program of work.

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APPENDIX A

DISTRIBUTION OF FARMER-OPINION RESPECTING PROBLEMS PRESENTING THE GREATEST DIFFICULTY FOR SOLUTION BY SCHOOL DISTRICTS

Problems	Crockett	Glover	Grapeland	Gudeblye	Kennard	Lovelady	P'tr Spr.*	Post Oak	Total
Poor land		4	4	6	1		4		19
Too few cash crops	7	2	1	4	8	12	9	8	51
Over-cropping	1			1				1	3
Under-cropping		1		2		1			4
Frequent overflows		2		1			5		8
Harmful insects	3	1	1	2	1	4			12
Plant and animal diseases	3			1	3	4	1		12
Poor equipment		6		3					9
Too little finance		7	2	1		1	2	1	14
Limited credit		4		1			2		7
Insufficient team		1		3			2		6
Poor management	1	1		4			4	1	11
Unbalanced program	2	2		2	2	3	5	5	21
Poor care of tools and team		2		1	3	2	5		13
Total	17	33	8	32	18	27	39	16	190

APPENDIX B

DISTRIBUTION OF UNITS OF PRACTICES IMPROVED IN SOIL CONSERVATION BY SCHOOL DISTRICTS

Practices Improved	Crockett	Glover	Grapeland	Gudeblye	Kennard	Lovelady	Porter Spring	Post Oak	Total Acres
Terracing	125	175	40	56	60	15	206	15	692
Contour cultivation	95	102	70	15	10	11	115	80	498
Crop rotation	100	15	10			6		10	140
Pasture improvement	15	20	18	15	16	38	26	21	167
Cover crops	75	21	13	31	16	8	55		218
Total	410	333	151	117	102	78	402	126	1,715

APPENDIX C

DISTRIBUTION OF UNITS OF PRACTICES IMPROVED IN LIVESTOCK IMPROVEMENT BY SCHOOL DISTRICTS

Practices Improved	Crockett	Glover	Grapeland	Gudeblye	Kennrd	Lovelady	Porter Spring	Post Oak	Total Units
Vaccination	99	167	58	134	70	73	340	47	988
Worming	140	45	38	36		24	37	10	330
Breeding	1					25	15		41
Feeding	12					12	150		174
Insect control*	2	10				10			22
Disease control*	3								3
Fitting and showing	43			93					136
Judging and selecting				2			100	6	108
Castration		6	2	4			42		54
House construction							1		1
Total	300	228	98	269	70	144	685	63	1857

* As distinguished from disease control by vaccination and worming. It refers to treatment by repellants and drenching.

APPENDIX D

DISTRIBUTION OF UNITS OF PRACTICES IMPROVED IN POULTRY IMPROVEMENT BY SCHOOL DISTRICTS

Practices Improved	Crockett	Glover	Grapeland	Gudeblye	Kennard	Lovelady	P'tr Spr.	Post Oak	Total Units
Vaccination			10					10	20
Worming		307		422	383	180	1251	770	3,313
Feeding	46	100	50			100	50		346
Breeding	4	110		50			50		214
Insect control	125	165	50					12	352
Disease control		64	68	36	110			57	335
Fitting and showing	10		40				14	62	126
Egg candling			312				564	168	1044
Egg grading		120		528	200	400	168		1416
Total	185	866	530	1036	693	680	2097	1079	7166

APPENDIX E

DISTRIBUTION OF UNITS OF PRACTICES IMPROVED IN FIELD CROPS BY SCHOOL DISTRICTS

Types of Practices Improved	Crockett	Glover	Grapeland	Gudeblye	Kennard	Lovelady	P'tr Spr.	Post Oak	Total Units
Cash crops*	16	20	25	5		10	15	106	187
Fertilizer home mixed		300					100		400
Seed germination	1	4	2				1	3	11
Seed field selected	15	23	1				26	2	66
Seed inoculated	8	2	2	2			19	2	35
Land winter broken		22		41			149	6	208
House constructed	2	2	2	2			10	1	19
Total	42	373	32	50		10	320	120	926

*Total units column represent the following measurements: 187 acres,400 lbs.,11 bushels,66 bushels,35 bushels,19 hotbeds,and 208 acres,respectively.

APPENDIX F

DISTRIBUTION OF UNITS OF PRACTICES IMPROVED IN HOME ORCHARDS BY SCHOOL DISTRICTS

Types of Practices Improved	Crockett	Glover	Grapeland	Gudeblye	Kennard	Lovelady	P'tr. Spr.	Post Oak	Total Units
Budding		12							12
Grafting		4							4
Pruning	62	50	117	100	75		70	167	641
Spraying	186	35	114	100	75		70	167	747
Spray material mixed		150		100		100	350		700
Total	248	251	231	300	150	100	490	334	2,104

APPENDIX G

DISTRIBUTION OF UNITS OF PRACTICES IMPROVED IN HOME IMPROVEMENT BY SCHOOL DISTRICTS

Types of Practices Improved	Crockett	Glover	Grapeland	Gudeblye	Kennard	Lovelady	P'tr. Spr.	Post Oak	Total Units
Painting					2	1	13		16
Whitewashing	3	3	1	1		1	10	1	20
Screening		3				5	50	4	62
Mixing whitewash	30	30	20				300		380
Making screens		2				16	50	2	70
Total	33	38	21	1	2	23	413	7	548*

*The total units column represents the following items: 16 homes, 20 toilets, 70 persons, from 19 families making screen windows and doors, 62 is the number of screens made, and 380 is the number of pounds of lime, salt, and flour used in mixing whitewash.

APPENDIX H

DISTRIBUTION OF FARM MAGAZINES SUBSCRIBED FOR BY SCHOOL DISTRICTS

School District	Magazines*						Total Subscribers
	A.P.J.	P.F.	F&R	C.W.	C.G.	S.R.	
Crockett		2	2	1			5
Glover	2	5	2	1	4	2	16
Grapeland	3	6	3	4	1	2	19
Gudeblye		1	4	3			8
Kennard		2	2	1	2		7
Lovelady		4	1	1		2	8
Porter Springs		10	3	1			14
Post Oak		6	3	1	1		11
Total	5	36	20	13	8	6	88

*Abbreviations shown in Appendix H above are for the following magazines: A.P.J.,the American Poultry Journal; P.F.,The Progressive Farmer; Farm and Ranch;C.W.,Capper's Weekly; C.G.,Country Gentleman; and S.R.,The Southern Ruralist.

APPENDIX I

DISTRIBUTION OF LOCAL COUNTY WEEKLY PAPERS SUBSCRIBED FOR BY SCHOOL DISTRICTS

School Districts	Grapeland Messenger	Crockett Courier	Crockett Democrat	Houston County Times	Lovelady Star	Total Subscriptions
Crockett		4	6	1		11
Glover	3	1				4
Grapeland	8					8
Gudeblye		3	3	2		8
Kennard		2			5	7
Lovelady					9	9
Porter Springs		3	9	3		15
Post Oak		4	6	2		12
Total	11	17	24	8	14	74

APPENDIX J

DISTRIBUTION OF AUTOMOBILES AND RADIO OWNERSHIP BY SCHOOL DISTRICTS

School Districts	Automobiles Owned	Radios Owned
Crockett	10	9
Glover	8	6
Grapeland	5	9
Gudeblye	3	9
Kennard	5	10
Lovelady	6	7
Porter Springs	7	12
Post Oak	7	12
Total	51	74

APPENDIX K

DISTRIBUTION OF FINANCIAL AGENCIES FURNISHING CAPITAL FOR OPERATING EXPENSES BY SCHOOL DISTRICTS *

School Districts	L.B.	F.S.A.	P.C.A.	Credit Merchant	A.A.A.	Livestock Sales	Current Labor	Total Farmers
Crockett	3	1	1	1	3	1	2	12
Glover	7	1	2		1	1		12
Grapeland	7		2	3				12
Gudeblye	3	1	5	1	1	1		12
Kennard	8		1	1	1		1	12
Lovelady	8	1	1	2				12
Porter Springs	10	3			1	1	1	16
Post Oak	7	4	1					12
Total	53	11	13	8	7	4	4	100

* These abbreviations are for the following agencies: L.B., local bank; FSA, Farm Security; PCA, Productive Credit Association; AAA, Agricultural Adjustment Agency.

APPENDIX L

DISTRIBUTION OF FARMERS' OPERATING EXPENSES BY SCHOOL DISTRICTS

School Districts	Number of Farmers Surveyed	Average Operating Expenses	Aggregate Operating Expenses
Crockett	12	$169.58	$2,034.96
Glover	12	140.83	1,689.96
Grapeland	12	121.25	1,455.00
Gudeblye	12	166.83	1,989.96
Kennard	12	152.08	1,824.96
Lovelady	12	152.08	1,824.96
Porter Springs	16	182.81	2,924.96
Post Oak	12	122.81	1,473.72

APPENDIX M

DISTRIBUTION OF FARMERS SURVEYED ON BASIS OF AVERAGE AGE AND GRADE AND THE AVERAGE AND AGGREGATE FAMILY MEMBERSHIP BY THE SCHOOL DISTRICTS

School Districts	Average Age	Average Grade	Average Family Membership	Aggregate Family Membership
Crockett	48	5	6	53
Glover	57	7	5	75
Grapeland	55	5	4	62
Gudeblye	43	7	5	56
Kennard	43	7	5	72
Lovelady	45	6	6	59
Porter Springs	40	5	5	101
Post Oak	48	7	6	69
Total				547

APPENDIX N

DISTRIBUTION OF THE ONE HUNDRED FARMERS SURVEYED AS TO TENURE BY SCHOOL DISTRICTS

School District	Owners	Renters		Share croppers	Total
		Cash	3rd & 4th		
Crockett	9	-	3		12
Glover	8	1	3		12
Grapeland	6	2	2	2	12
Gudeblye	8	2	2		12
Kennard	5		7		12
Lovelady	6	1	5		12
Porter Spring	12		4		16
Post Oak	6	3	3		12
Total	60	9	29	2	100

APPENDIX O

DISTRIBUTION OF MEMBERSHIP IN ORGANIZED INSTRUCTION AS OF FEBRUARY 1,1942,BY SCHOOL DISTRICTS

School Districts	All-Day	Day-Unit	Part-time	Evening School	Total
Crockett	37	11	14	36	98
Glover	40			59	99
Grapeland	34	9	11	30	84
Gudeblye	49		12	46	107
Kennard	38		9	50	97
Lovelady	35	12	8	39	94
Porter Spring	37	16	11	43	107
Post Oak	29	21		16	66
Total	299	69	65	319	752

APPENDIX P

DISTRIBUTION OF ORGANIZED INSTRUCTION MEMBERSHIP AND OTHER FARMERS NOT ENROLLED IN EVENING SCHOOLS AS OF FEBRUARY FIRST 1942, BY SCHOOL DISTRICTS

School Districts	All-Day	Day-Unit	Part-time	Evening School	Farmers not enrolled	Total Potential Participation
Crockett	37	11	14	36	41	139
Glover	40			59	44	143
Grapeland	34	9	11	30	48	132
Gudeblye	49		12	46	42	149
Kennard	38		9	50	44	141
Lovelady	35	12	8	39	41	135
Porter Spring	37	16	11	43	55	162
Post Oak	29	21		16	31	97
Total	299	69	65	319	752	1,504

APPENDIX Q

MEMORANDUM OF DATES OF ESTABLISHMENT OF VOCATIONAL AGRICULTURE DEPARTMENTS AND VOCATIONAL AGRICULTURE TEACHERS REPORTING FOR THIS SURVEY BY SCHOOL DISTRICTS

School Districts	Dates of Establishment of Department	V. A. Teacher Reporting
Crockett	1932	J.H.Burns
Glover	1938	I.T.Williams
Grapeland	1941	J.J.Woods
Gudeblye	1926	T.H.Johnson
Kennard	1927	M.B.McCullough
Lovelady	1927	Grady Terry
Porter Spring	1930	H.C.Langrum
Post Oak	1925	L.W.Watson
Fodice*	1922	O.J.Anderson

*

This school is located in Houston County, but is in a county line district(Pennington). It is operated under the jurisdiction of Trinity County. It was not included in this survey.

APPENDIX R
QUESTIONNAIRE FOR FARMERS

1. Name_____ Age_____ Grade_____

2. What is your tenure? Owner____ cash renter____ third-and-fourth renter____ sharecropper_____ Number in family_____

3. Name of school district_____ V.A.Teacher_____

4. How are your farm operations financed? Through: Local Bank _____ Farm Security_____ Productive Credit Association_____ Emergency Seed and Feed Loan____ Credit Merchant_____ Personal cash_____ Livestock sales____ AAA Payments__ Others_

5. Do you operate on a budget system?___ Do you follow it?____

6. Do you have income from other sources other than your crops and sale of livestock?_____ What percent of your income is derived from labor for your neighbor farmer?_____

7. Do you subscribe for local newspapers?____ List those which you subscribe for _____ _____

8. Do you seek information from your vocational agriculture teacher when confronted with a difficulty?_____

9. Do you subscribe for a farm magazine?___ List those which you subscribe for _____ _____

10. About what is the operating expenses of your farm during a normal year?_____

11. Do you own a car?_____ A radio?_____

12. If you own a radio, do you include the Farm and Home hour on your radio log?_____ Or is it kep for family entertainment only?_____

13. Is the general health of your family good____ fair_____ or poor____? Check the one which indicates condition.

14. If you have not succeeded as you think you should have as a farmer, check one or more of the following causes for your failure to do so:

A. Farm Planning

1. Unbalanced program ___
2. Poor care of tools ___
3. Too few cash crops ___
4. Over cropping ___
5. Under cropping ___

B. Farm Credit

1. Finance_____
2. Team _____
3. Equipment_____

C. Insect and Disease Control

1. Harmful insects_____
2. Plant and animal diseases____

D. Poor Land _____

E. Overflows and Droughts_____

15. Do you attend an evening school class regularly? _____

16. Check the farm practices in the following list that you have improved because of the influence of your vocational agriculture teacher:

A. Soil Conservation

Practice	Scope
1. Terracing	_____
2. Contour cultivation	_____
3. Crop rotation	_____
4. Winter cover crops	_____
5. Summer cover crops	_____
6. Pasture improvement	_____

B. Livestock Improvement

Practice	Scope
1. Vaccination	_____
2. Worming	_____
3. Feeding	_____
4. Breeding	_____
5. Castration	_____
6. Butchering	_____
7. Insect control	_____
8. Disease control	_____
9. Fitting and showing	_____
10. House construction	_____

C. Poultry Improvement____

Practice	Scope
Vaccination	_____
Worming	_____
Feeding	_____
Breeding	_____
Culling	_____
Caponizing	% _____
Insect control	_____
Disease control	_____
Egg candling	_____
Egg grading	_____
Fitting & Showing	_____
House construction	

D.Field Crops_____

Practice	Scope
Cash crops other than corn cotton	_____
Seed testing	_____
Seed inoculation	_____
Seed selection	_____
Hotbed construction	_____
Winter breaking land	_____
Home mixing fertilizer	_____

E. Home Improvement

Practice	Scope
Painting	_____
Whitewashing	_____
Mixing white wash	_____
Making screens	_____
Screening	_____
Landscaping	_____
Remodeling	
a.home	
b.out-houses	_____

F. Home Orchards

Practice	Scope
Budding	_____
Grafting	_____
Pruning	_____
Spraying	_____
Insect control	_____
Disease control	_____

APPENDIX S
QUESTIONNAIRE FOR VOCATIONAL AGRICULTURE TEACHERS

1. Name of school_____ Address_____

2. Name of V.A.Teacher_____

3. Highest grade taught_____ Distribution of organized instruction. All-day_____ Day-unit_____ Part-time_____ Evening school_____ Number of farmers in your district not enrolled in evening school classes_____

4. How long have you been in your present location?___yrs.

5. How long has vocational agriculture been taught in your school district?_____years. How long have you taught vocational agriculture?_____years.

6. Do you publish in your local county papers or elsewhere your outstanding project activities?_____ Have your local publishers refused to take your reports and announcements for publication?___ Has the attitude of local publishers been congenial?_____

7. What is the distribution of the farmers of your district as to tenure? Owners____ Cash renters_____ Third-and-fourth renters_____ Sharecroppers_____

8. Do you make regular or occasional visits to members of your evening school classes who are carrying supervised farming programs? Check one: Regular visits____ Occasional visits_____.

9. Do you hold meetings of an agricultural nature other than your evening schools?_____.

10. Do you secure project agreements from the boy's parents before enrolling the boy for supervised farming project activities?____ Do you have copies on file in your department? _____.

11. How many farms have been bought?__Sold?__Lost?__Estates divided?___ Since you have been teaching in that community?

12. If any farms have been bought who financed the deal or deals? Check which: Farm Security Administration_____ Federal Land Bank___Local Bank__Private corporation___ Personal savings ____.

13. If any Negroes have lost or sold farms, how many of them were bought by Negroes?_____.

14. What other agencies of an agricultural nature operate in your district? Check: FSA__NFLA__PCA__EXTENSION SERVICE___.

15. Check the following farm and home practices on which you have conducted evening schools or given information out otherwise?

A. Soil Conservation Practice	Scope	B. Livestock Improvement Practice	Scope
Terracing	_____	Vaccination	_____
Contour cultivation	_____	Worming	_____
Crop rotation	_____	Breeding	_____
Cover crops	_____	Castrating	_____
a. winter	_____	Butchering	_____
b. summer	_____	Curing meats	_____
Pasture improvement	_____	Insect control	_____
a. grubbing	_____	Disease control	_____
b. mowing	_____	Judging and Selecting	_____
Fertilizing	_____	House Construction	_____
Crop diversification	_____	Hog lot sanitation	_____

C. Poultry Improvement

Practice	Scope
1.Vaccination	
2.Worming	
3.Feeding	
4.Breeding	
5.Caponizing	
6.Fitting&showing	
7.Judging&selectng	
8.Insect control	
9.Disease control	
10.Egg candling	
11.Egg grading	
12.House renovation	
13.House construction	

D. Home Improvement

Practice	Scope
1.Mixing paint	
2.Painting	
3.Mixing whitewash	
4.Whitewashing	
5.Making screens	
6.Screening	
7.Landscaping	
8.Step repairing	
9.Building steps	
10.Building pit toilets	
11.Remodeling houses	
12.Repairing roofs	

E. Home Orchards

Practice	Scope
1.Budding	
2.Grafting	
3.Pruning	
4.Spraying	
5.Insect control	
6.Disease control	
7.Mixing spraying material	

F. Field Crops

Practice	Scope
1.Cash crops other than cotton	
2.Home mixing ferlizers	
3.Field selecting seed	
4.Inoculation of seed	
5.Hotbed construction	
6.Winter breaking land	