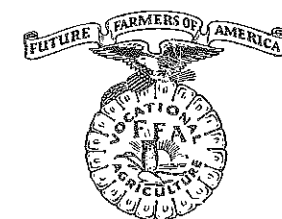


How much more delightful to an undebauched mind is the task of making improvements on the earth, than all the vainglory which can be acquired from ravaging it by an uninterrupted career of conquest.—George Washington.



A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by the Meredith Publishing Company at Des Moines, Iowa.

## MANAGING EDITORS

H. M. Byram, East Lansing, Michigan..... Editor  
 Roy A. Olney, Ithaca, N. Y..... Associate Editor  
 F. E. Moore, Des Moines, Iowa..... Consulting Editor  
 W. F. Stewart, Columbus, Ohio..... Business Manager

## SPECIAL EDITORS

A. M. Field, St. Paul, Minnesota..... Methods  
 A. P. Davidson, Manhattan, Kansas..... Book Reviews  
 A. K. Getman, Albany, New York..... Professional  
 R. W. Gregory, Washington, D. C..... Research  
 C. S. Anderson, State College, Pennsylvania..... Future Farmers of America  
 L. R. Humphreys, Logan, Utah..... Supervised Practice  
 H. H. Gibson, Corvallis, Oregon..... Farm Mechanics  
 Lester B. Pollom, Topeka, Kansas..... Part-Time Schools  
 J. B. McClelland, Ames, Iowa..... Evening Schools  
 V. G. Martin, State College, Mississippi.....

## REGIONAL REPRESENTATIVES

North Atlantic, E. R. Hoskins..... Ithaca, New York  
 Southern, M. D. Mobley..... Atlanta, Georgia  
 Central, G. F. Ekstrom..... St. Paul, Minn.  
 Western, William Kerr..... Boise, Idaho

## EDITING-MANAGING BOARD

F. E. Armstrong, Hawaii; E. R. Hoskins, New York; M. D. Mobley, Georgia;  
 Roy A. Olney, New York; R. W. Gregory, Washington, D. C.; A. K. Getman, New  
 York; William Kerr, Idaho; J. A. Linke, Washington, D. C.; F. E. Moore, Iowa;  
 G. F. Ekstrom, Minnesota; W. F. Stewart, Ohio; H. M. Byram, Michigan.

Subscription price, \$1 per year, payable at the office of the Meredith Publishing Company, Des Moines, Iowa. Foreign subscriptions, \$1.25. Single copies, 10 cents. In submitting subscriptions, designate by appropriate symbols new subscribers, renewals, and changes in address. Contributions should be sent to the Special Editors or to the Editor. No advertising is accepted.

Entered as second-class matter, under Act of Congress, March 3, 1879, at the post office, Des Moines, Iowa.

## CONTENTS

Learning by Living: A Problem in Teacher Education.....	R. M. Stewart.....	123
A Half Century.....	R. W. Gregory.....	123
Contributions of Leading Americans to Agriculture— Cyrus Hall McCormick.....	A. M. Field.....	124
A Diary of School Journeys in Agriculture.....	Watson Fowle.....	126
Book Review.....	A. P. Davidson.....	127
Developing Ability to Finance a Farm Business: A Major Objective in Vocational Programs in Agriculture.....	H. H. Gibson.....	128
Shop Training and Formation of Habits.....	G. R. Wade.....	130
Training Program in Farm Shop for Teachers of Vocational Agriculture.....	Geo. T. Sargent.....	131
How Fifty Young Men Became Established in Farming.....	Lloyd T. Clark.....	132
Determination of Managerial Training Content for the Course in Farm Management for All-Day Pupils in the Sussex, New Jersey, High-School Area.....	Russell B. Dickerson.....	134
Eleven Years With the State Farmers of Texas.....	J. B. Bertrand and R. L. Thurman.....	136
Three Brothers—American Farmers.....	O. E. Kiser.....	137
Future Farmers in the Movies.....		137
A Chapter House in Idaho.....	Don A. Peterson.....	138
The Unknown Teacher.....		138
Book Review.....	A. P. Davidson.....	138

## Learning by Living: A Problem in Teacher Education

IN OUR philosophy of agricultural education we give content to words and expressions like these: orientation, self-expression, experience, participation, learning by doing, reality, supervised farm practice, apprenticeship, and the like. These are dynamic words and expressions. This discussion is presented to emphasize and re-emphasize the importance and challenge of *reality* in teacher education. We have built our entire program in agricultural education around the idea that education is realized only thru participation.

Do we approach our teacher-education problems with actual participation at the focus of our thinking? How much emphasis do we place upon participation in the real experiences of living the life as the basis of farmer-and-teacher education? We all know that teaching *about* farming or teaching *about* teaching farmers is a poor type of performance when compared to *learning by doing*. We face a real danger in assuming that our students have had sufficient participation in farming to warrant teaching without participation. This danger is even more real in the teacher-education institution where one may assume not only that he can train farmers with little or no participation, but that he can train teachers with little or no participation in teaching.

Applying this point more particularly to certain basic problems that face teachers and teacher-trainers, we shall be able to see more accurately what we mean by focusing our attention upon participation as basic to learning.

1. *Teaching must be real.* For teaching to be real, it must be centered in people. The teacher must know the people, the conditions under which people live, the agricultural resources of the area, the economic and social organizations of the community, and other such *living* facts before he can set up teaching situations that make the solution of the problems possible. The teacher himself must be conversant with these problems. Thru his own experiences he must be able to appreciate reality as it relates to a lesson. The teacher-trainer not only must approach his task that way, but the teacher-trainer must perform in the same way. In addition, he must add to his range of experiences the experience of his own teaching. I doubt the value of vocational education on any level that does not presuppose or provide for participation. Why should we continue to teach *unreal* lessons? This does not mean that we limit a lesson just to the skill aspect of farming or of teaching. The acquisition of skill comes by some knowledge, some attitudes. Knowledge comes by attitudes and skills. Attitudes come by skill and knowledge. All come by participation.

2. *Placement is a step in reality.* Fundamentally, placement is an objective of education. It inheres in one's vocational purpose. Who doesn't look to placement as a step in one's vocational education? This means that teacher-education must regard placement as basic to objectives, as basic to curriculum and course-making, and as basic to one's philosophy of vocational education. It is a substantial motivating force in learning. To make teacher education real, the teacher-trainer must deal in the realities of employment. It seems to me that placement is one of the most real aspects of the total teacher-education program. It appears in prospect at the beginning of guidance and preparation, even if its full realization comes in a series of later steps.

3. *The determination of how and what to teach must be real.* For every teaching situation there is an appropriate procedure. When such appropriate procedures are discovered, selected, and created for teaching situations, they will be so developed in the crucible of *reality* and *use*. This means that materials of instruction must relate to *real* problems and they will be useful in the process of learning, since both the procedures and the materials meet the needs of personal learning at the time and place. This principle of practice is just as essential in learning how to solve a given teaching problem as in how to understand and use the fulcrum and lever in a lifting situation.

4. *Special studies must be made.* In the selection of appropriate procedures and materials of instruction to apply to personal appreciation and use, there is nothing more dynamic

and motivating than original studies of the difficulties involved. Too frequently, teacher education has languished because the stimulating effects of original study and expression have been either denied or neglected. New procedures and new materials, if discovered first hand, lie at the basis of the enthusiastic learning of youth. The learning of early years is characteristically of this type. With the "pouring in" process of later years, enthusiasm may easily die out. It is the lack of participation that deadens the process of learning.

5. *Guidance is personal.* It must be *real* if it is to be either valuable or safe. If the schools had not lagged in their task of keeping education dynamic, real, and identified with *living*, guidance as a special function would have much less need for support. As it is, guidance is essential and challenging if life in the school is to be real as it is outside of the school. Wise guidance is the way to the adaptation of education to life. Not only in professional education, but in technical agriculture, particularizing of emphasis in the selection of procedures and materials of instruction is an incessant present-day demand.

6. *Supervision of educative activities involves real situations.* Supervised farm practice, supervised teaching, supervised apprentice teaching, supervised practice of the student administrator or student supervisor lose most of their values when not carried out in *real* situations. Directed observation and directed teaching—both under supervision—constitute the focal point on the side of a teacher's preparation, whether professional or technical. Participation comprehends all representative experience in any typical cross section of teaching.

7. *Institutions represent the real life of the people.* In the last analysis, teacher-education programs are affected very much by the practices of teaching staffs. Agricultural education is in a large sense in the custody of land-grant colleges. Fortunately for us, there is the atmosphere of reality in these colleges. They are increasing the range of appropriate teaching materials, they are using more up-to-date procedures, they encourage purposeful selection of curricula and courses, they promote research, and co-operate in the placement of students in positions. They emphasize service. Teacher-educators are responsible directly and indirectly for progressive improvement in the programs of professional preparation. They have a tremendous responsibility and a challenge if the educational patterns of colleges are to be developed in accord with the facts of life—farm life and teaching life.

Let us keep our program real!—R. M. Stewart, New York.

## A Half Century

FIFTY years from now most of the good farms of this country must be operated by trained, intelligent farmers. Vocational education will stand or fall upon the basis of whatever contribution it may have made to this fact. This means, therefore, that vocational education must accept as its primary concern the responsibility for functioning in the lives of young men wanting to farm as a force helping them get into the occupation; in the lives of adults already farming to help them become increasingly successful and happy in it.

In other words, vocational education must face the issue continuously as to whether or not it is in a position to defend itself on the basis of what it has done for a young man to help him get "what it takes" to get a chance at a placement-in-farming opportunity; and what service it has rendered continuously to him who is farming, enabling him to make adjustments and improvements in his program and practice to the end that he becomes progressively well established in it.

It is not so much what he knows that counts, but where he is and what he is doing with what he knows while there, that is important.—R. W. Gregory, Washington, D. C.

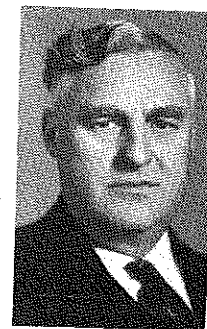
There are 1531 teachers of agriculture and others receiving this issue who were not subscribers in April 1938, when the reprint of the series of articles entitled "Whither Agricultural Education" was announced and made available. These people and others can still secure a copy of this outstanding booklet by acting quickly. All orders should be sent directly to L. L. Anderson, Meredith Publishing Co., Des Moines, Iowa. Price, 15 cents each.



## Contributions of Leading Americans to Agriculture—Cyrus Hall McCormick

A. M. FIELD, Professor of Agricultural Education, University of Minnesota

FROM the dawn of civilization down to the nineteenth century the processes of agriculture were performed almost entirely by manual labor and with crude and inefficient implements. But this universal enslavement of men to the soil was not destined to go on forever.



A. M. Field

It fell to the lot of Cyrus McCormick, a Virginia farm boy, to free the farmer from the back-breaking toil of the harvest fields thru his inventive genius.

On the family farm at Walnut Grove, Rockbridge County, Virginia, on February 15, 1809, the emancipator of the farmers, Cyrus Hall McCormick, was born. As a son of Robert McCormick, a Scotch-Irish farmer of excellent ancestry, he received a rich heritage. Robert McCormick was an educated, prosperous landowner, who operated besides his farms, grist mills, saw mills, a smelter, a distillery, and a blacksmith shop. Being financially independent, he was able with his son, Cyrus, to devote considerable time to mechanical invention. Robert McCormick was a reader and a student, gentle but energetic, and an active church man. His mechanical ingenuity and quiet persistence made him a moderately successful inventor.

Mary Ann McCormick, mother of Cyrus, was imaginative, efficient, and shrewd, with a typical Scotch-Irish desire to improve herself and the world around her. Less dreamy than her husband, she occupied herself with constructive, practical ambitions. In the intensely sincere, religious atmosphere presided over by these parents, the eight McCormick children were reared. Cyrus inherited the qualities of his parents, and added to them an indomitable will to succeed.

### Early Attempts to Build Reapers

In 1816, Robert McCormick made the first of several attempts to build a mechanical reaper. Before this time many men had attempted the construction of such machines. William Pitt built an unsuccessful mechanical reaper as early as 1786. Bell, Hussey, Bailey, and others had tried, but failed. Robert McCormick's machine was pushed thru the grain by two horses, the wheat being

thrust against a stationary convex sickle by rapidly revolving beaters. This machine, too, failed to cut grain satisfactorily. He followed this with several other models employing the same principle, but they were all unsuccessful. His last machine was tested in May, 1831. In *Sketch of My Life*, August 4, 1876, Cyrus McCormick wrote: "My father was both mechanical and inventive and could and did at that time use the tools of his shops in making any piece of machinery he invented. He invented, made, and patented several more or less valuable agricultural implements."



Cyrus Hall McCormick

Immediately after the failure of his father, Cyrus conceived his own principles, built a model, and at the end of two months had succeeded in developing a machine which cut grain satisfactorily. Picture the twenty-two-year-old Cyrus McCormick in July, 1831, trying out his reaper before a small group of interested, but skeptical, persons on the farm of John Steele. He succeeded in cutting about six acres of grain. Still dissatisfied with the performance of the reaper, Cyrus added several improvements to his machine before the harvest of 1832. During that year several trials were made. In the early summer Cyrus would have been glad to sell all rights in the reaper for \$50,000; before the harvest was completed he dreamed of making a million dollars on his invention.

The claims for priority in the invention of the reaper and its subsequent im-

provements precipitated an almost constant array of lawsuits and court litigations. The beginning of the legal controversies started in 1834, when McCormick was granted a patent for his reaper. During the same year, in the *Mechanics* magazine appeared a cut of a reaper patented by Obed Hussey. Cyrus immediately wrote a letter to the editor declaring that the McCormick reaper, constructed on the same principles as the Hussey machine, antedated Hussey's by three years. Thus began a long period of attempts to prove the invention as having originated in the mind of Cyrus McCormick. The period of litigation ended with the death of Hussey in 1860.

In the *Biography of the McCormick Family*, published in 1896 by Leander J. McCormick, brother of Cyrus McCormick and long associated in the business of manufacturing reapers, the credit for the invention of the reaper is given to the father, Robert McCormick. Leander further stated that he had published *Memorial of Robert McCormick* in 1885 to vindicate his father against the claims of his brother. In this manuscript are recorded statements made by a few relatives and friends to the effect that Cyrus copied his father's invention. It must be remembered that reports denying Cyrus McCormick as the rightful inventor of the reaper occurred only in later years after much dissension had arisen over business dealings between the brothers. During the father's lifetime, Cyrus received full credit as the sole inventor of the machine. Unbiased investigators give assurance that the reaper was invented by Cyrus McCormick, and not by his father.

### Pioneering in Manufacturing and Selling Reapers

The young inventor was beset with difficulties. In order to obtain funds with which to manufacture reapers he began farming operations, but found it impossible by this means to raise sufficient capital for his experiments. In the vicinity of his home was a deposit of iron ore, and Cyrus decided to build a furnace and make iron. With the help of his father and a teacher, Cyrus operated the furnace successfully for several years. When, however, the price of iron fell, the McCormicks were forced to abandon the venture. Cyrus gave up his farm also, but continued experiments upon his reaper.

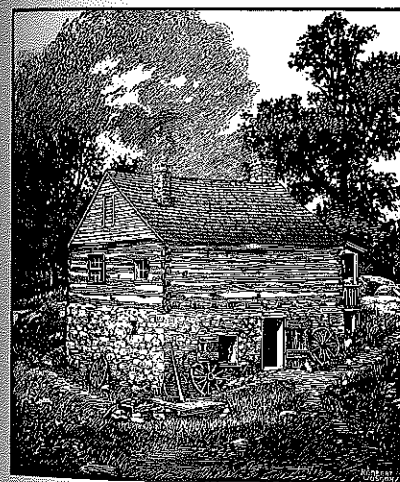
In 1840, Cyrus was visited by Abraham Smith, who had heard about the new machine and came to buy one.

During the same season two other farmers came to Cyrus for the same purpose, and raised the total of sales to three. The price of the reaper was one hundred dollars. The following year Cyrus spent in private experimentation, and achieved still greater efficiency in his machine. Therefore business began to flourish, and fifty machines were sold in the year 1844. The home and farm had now become a busy factory.

Transportation problems arose during these early years. At one time sickles were made 40 miles from the McCormick home and were transported on horseback. Still more difficult was the problem of shipping the completed reapers to selling points. Much unexpected business had come from the West—Ohio, Indiana, and Illinois. The first machines shipped into this territory were taken in wagons from the home farm to Scottsville, then to Richmond, and from there to New Orleans by sea. River boats carried the reapers up the Mississippi and Ohio rivers to Cincinnati.

### McCormick Goes West

McCormick decided to investigate the territory from which this new business came, and began a journey to the West in August, 1844. He found that thruout these western states thousands of bushels of wheat were lost annually because farmers were unable to harvest their crop in season. During this journey, McCormick licensed firms in Brockport, New York, and Cincinnati, Ohio, to manufacture his reapers. As a result of his travels he realized that his business had outgrown the little forge shop at Walnut Grove.

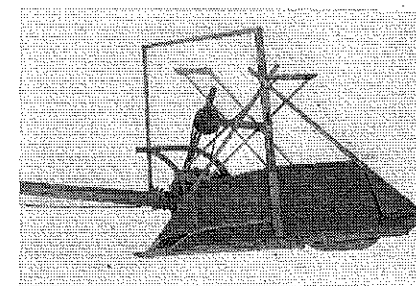
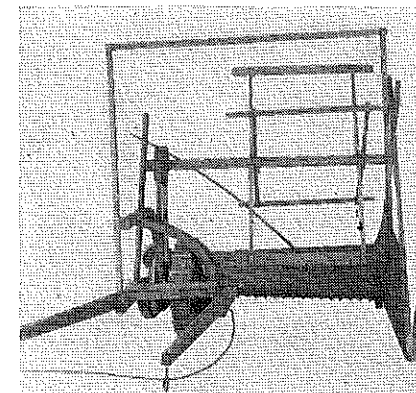


Forge shop on the McCormick farm where first reaper was invented, 1831

The first advertisement of the reaper appeared in 1833 in the *Lexington Union*. During the following two years additional notices of the reaper and also advertisements of the hillside plow were published. In 1845, farm journals in Columbus, northern New York, and Chicago offered large notices. At this time McCormick decided to establish his factory in Chicago. Gray and Warner, manufacturers of grain cradles, were licensed to build the reaper. McCormick and his partner, Gray, built 500 machines for the 1848 harvest. Shortly afterward, because of a misunderstanding regarding the terms of the

business to William B. Ogden and W. R. Jones. This firm was destined to exist but a short time, for in 1849 McCormick bought the Ogden-Jones interest in the business for \$65,000. From that time on, the McCormick reaper was an unquestioned success. With the help of the brothers, William and Leander, the great business was established. Cyrus McCormick became a Titan of Industry, respected by all for his wealth and power.

Honors were heaped upon McCormick. In 1851 the reaper was exhibited at the World's Fair in London. At first lightly regarded, it was soon appraised at its true value as indicated in the following quotation from the *London Times*: "It will be remembered that the American department was at first regarded as the poorest and least interesting of all foreign countries. Of late it had justly assumed a position of the first importance, as having brought to the aid of our distressed agriculturists a machine, which, if it realizes the anticipations of competent judges, will amply remunerate England for all her outlay connected with the great exhibition. The reaping machine from the United States is the most valuable contribution from abroad to the stock of our previous knowledge that we have yet discovered, and several facts in connection with it are not a little remarkable." The McCormick reaper was



Two views of the world's first reaper

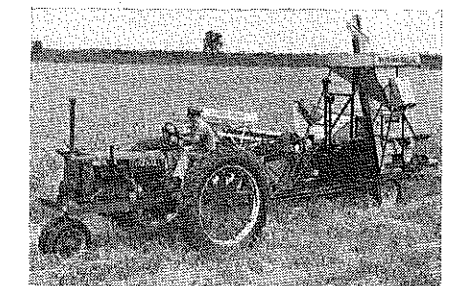
awarded the medal of the Prince Albert Royal Agricultural Society in competition with the Hussey machine. Other triumphs followed. In 1855, the reaper won a gold medal of honor at the International Exposition in LaTrappe, France. In 1878 McCormick was made a member of the Legion of Honor and a member of the French Academy as a reward for his achievements in the interest of agriculture.

With the triumphs came trials. After the death of William McCormick in 1865, family controversies arose. Leander opposed certain business deals and claimed some of the improvements on

The lack of harmony between the brothers led to the dissolution of the partnership in 1879, five years before the death of Cyrus McCormick.

### The Contributions of Cyrus McCormick to the World

The greatest beneficiary of the McCormick genius was, of course, the farmer. No longer must he wield the cradle from morning until night to fell two acres of grain. The reaper took the toil from his shoulders and accomplished from two to six times as much work. No longer need the farmer hesitate to increase this grain crop because of the



Modern one-man, tractor-driven combine

fear of being unable to harvest it. The reaper could gather his grain before it fell from the ripened stalks. He could double his wheat acreage and turn to the raising of other small grains and to crop rotation. He could improve his husbandry because of the abundance of feed. No wonder the farmers agreed that the reaper was worth ten times its cost!

The reaper was not the only invention given to the farmer by McCormick. He also developed the hillside plow and a water-powered hemp-breaker for the Kentucky farmer. The hemp-breaker was, of course, of minor importance when compared with the reaper. The plow, later made obsolete with the invention of the John Deere plow, was a very popular implement at the time of its invention.

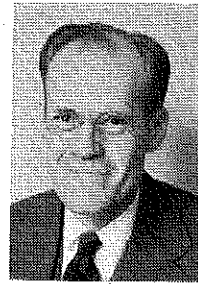
The business policy of McCormick was of immense value to the farmer. His fertile brain originated the present system of deferred payments. He realized the fact that with a farm machine whose price was so high, payment could not be demanded until the machine had partially paid for itself. Many of his reapers were placed on farms with little or no initial payment, and farmers paid after the harvest had been garnered. McCormick knew the farmer and trusted him. In all of his selling McCormick never asked a farmer for a written promise to pay; an oral commitment was enough. The farmer paid if he could. If crop failures made payment impossible, the firm waited for better times before attempting to collect from him. The McCormick Company profited by this lenient practice; only two percent of the money receivable was lost.

Not only the farmer but also the nation benefited from the McCormick genius. The reaper was conceded to be indirectly responsible for the improvement of transportation facilities. New markets became necessary with the increase in grain production, with the demand for better transportation an obvious corollary. Many of the business

(Continued on page 131)



## A Diary of School Journeys in Agriculture

WATSON FOWLE, Instructor,  
Traverse City, Michigan

Watson Fowle

THE instructor of vocational agriculture has at hand a heritage of a great field of life situations and activities to functionalize his course of study. Each school community offers its own resources for this instructional material. If field studies are to be made educational, the success depends greatly on the amount of preliminary classroom work leading up to the trip. A very definite understanding of what the student is to observe or do on the trip is essential if all the students are to receive the value they should from the trip.

Twenty-eight school journeys that were used in the agriculture courses of Traverse City High School are collected here in a diary form. This diary covers the journeys of two different all-day classes in agriculture.

## September 13:

The class went to the apple orchard to get experience in grading apples. This trip made possible the observation of the difference in quality between Wealthy apples from trees which had been "graduated-thinned" by the class during the summer, as compared to unthinned trees. (This apple orchard is managed as a co-operative activity of the F. F. A. chapter.)

## September 14:

The class visited the orchard and did some apple-picking. The standard apple-picking bag was demonstrated. We explained the method of taking orchard-run samples for spray residue. No analysis laboratory is set up here at this date, so the samples were not actually tested for residue.

## September 15:

The class spent two hours at the Potato-Harvesting Field Day at the Duncan Morrison farm. Here the students had opportunity to test their ability in grading potatoes according to U. S. grades. They had opportunity to observe several types of diggers designed to dig without injury to the tubers. Two members of the Michigan State College discussed potato-marketing problems. This trip was written up by one of the students and published in the local paper.

## September 16:

With the assistance of Professor Pettigrove of the Michigan State College, a "bean-variety-and-date-of-planting" test plot was harvested. This was a

project on the farm of Dick Leggit, one of the students. Detailed instructions were given for this work in a class period prior to the trip. For two class periods following, data from samples were determined and tabulated as the samples were threshed, picked over, and weighed. These data were used by one of the students for a newspaper story.

## September 21:

Under the direction of Professor Marsden of the Michigan State College Crops Department, a hybrid-corn test plot on the home farm of one of the students was harvested. One period was spent discussing hybrids before this work was undertaken. Samples were taken from representative rows and the corn graded. Two class periods were used later making shelling tests and moisture tests of the samples.



Harvesting hybrid-corn test plots

## September 28:

The class had an opportunity to make a second trip to the bean-variety plot and take soil samples to analyze later on in class. This study will be correlated with the crop yields of Robust beans in the field. Eighty-seven sacks of beans were also taken in to ship to the college. In these two trips the students had the opportunity to study and summarize data for a very fine variety test plot maintained by one of the students.

## September 30:

The class co-operated with the county agricultural agent in harvesting the potato field of Mr. P. C. Morrison. Mr. Morrison is one of 12 growers who has entered his field in the Premier Potato-Growers' Contest. Representative sample rows were dug in the field and graded according to U. S. grades. A 50-pound field sample was taken for exhibit at the Regional Potato Show on October 28. Many crop data were given to the boys by Mr. Morrison, relative to rotations used on this farm for the past 30 years. Production records were also shown for the period. These records show that higher yields are obtained now than originally; and Mr. Morrison explained what practices have made this possible.

## September 30:

The class spent an hour at the state hospital farm judging a class of Holstein-Friesian cows. Mr. Carpenter, the herdsman, exhibited the bulls, gave the class information on the state hospital herds, and discussed breeding problems.

## October 3:

Two local peach orchards were visited by the class. The students treated 460 trees with paradichlorobenzene as an eradicant of peach borers. This is a splendid illustration of an approved orchard practice. On the same trip observations of orchard cover crops and windbreaks were made. This labor netted the F. F. A. chapter \$8.

## October 5:

Class harvested two plots of potatoes of members of the Premier Potato-Growers' Contest. Since three fields have been observed, some fine comparisons of cultural practices have been made and results could actually be measured. Information secured was used for two class periods in judging and grading potatoes.

## October 12:

The class spent two hours at the Michigan State College ram truck. Professor Benton, accompanying the truck, gave the students a splendid demonstration of judging sheep breeds and care and management of sheep. By visiting this truck the students had opportunity to see six different breeds of sheep. This has been one of the most outstanding field trips thus far. Considerable technical information studied more thoroughly in later units of the course was presented at this time.

## October 20:

The class, accompanied by one biology student, planted 500 Siberian pea trees and 500 gray dogwood on the school forest. These plants were supplied by the Grand Traverse Dog and Sportsmen's Club. These bushes will be wildlife feeding plants, as both varieties produce berries. A count made of last year's planting of pine indicates that about 60 percent of them are living. A very interesting news story of this trip was written by one of the students. One hundred forty feet of film of this co-operative study were taken by a representative of the local sportsmen's club.

## October 18:

The class spent two periods at the school orchard scraping trees for codling-moth control. This is an approved practice that the students can use on their home orchards. The group had the opportunity to note results of fertilizer applications made by last year's class.

## October 21:

The class journeyed to the farm of Robert Drake to start soil-mapping. Three periods will be spent in mapping this 40-acre farm. Soil samples were

taken which will be used in the class for analyses later on. Data secured on this trip will supply material for class discussion and laboratory work in soil-testing and mapping for six periods.

## October 21:

The class visited the herd of Mr. James Harris to judge Jerseys. Mr. Harris explained the dairy records he keeps on his herd. The students had opportunity to see how Mr. Harris has been able to improve dairy production by the purchase of bulls from high-producing herds. Records of individual cows and their progeny were kept over a period of years so the improvements made could be observed firsthand. This herd averaged 383 pounds of butterfat for 1937. Some individuals are producing 506 pounds of butterfat. This is an outstanding herd, and Mr. Harris is willing and able to explain his work to young people in an interesting manner.

## October 28:

Members of the class co-operated in setting up the exhibits for the Regional Potato and Apple Show and a downtown window display. Crop data used in the window display were assembled by students in visits to soil conservation and crop reporting offices.

## November 3:

The class and two biology students went to the school forest and participated in making movies of the planting of pines and plants for wildlife feeding. A fine film that can be used to motivate students' interest in tree-planting in the spring was developed. (This film was used in a school assembly program in the spring.)



Planting trees in the co-operative school forest and wildlife feeding tract in Michigan

## November 4:

The class journeyed to Mr. Cook's farm in Leelanau County and judged a class of Guernsey cattle. Some outstanding show animals are in this herd. We spent two hours at Robert Drake's farm, making the map and getting samples of soil for use in class later on. One more period will be spent in completing this soil map. This is providing the class fine activity in soil-testing and is showing them how to make map of their home farms for their *Supervised Practice Planning Book*.

## November 8:

The class spent two hours at the orchard. We have baited this orchard for mice, and all students had opportunity to see the method used. This is a good illustration of an approved practice that may be used on home orchards.

## November 18:

The boys visited the farm of Mr. Kratochvil to look over classes of Milking Shorthorns. In preparing for this school journey, a U. S. D. A. film strip on the judging of beef cattle was shown. One class period was spent in discussing Milking Shorthorns and points to consider in their evaluation. The class members had opportunity to judge some fine cows and to observe how an outstanding sire has been used to build up quality and type in the young stock of this farm. A class of young bulls was inspected before leaving the farm. There were four bulls for sale. This motivated the judging of this class tremendously. Mr. Kratochvil discussed his herd and how he has been able to build it up with the use of good sires.

## December 6:

The class visited the forest, cleaned up about the entrance, and erected a name sign. The members posed for a picture while planting wildlife shrubs. Two students plan to write this up for sports magazines, using the pictures taken.

## March 20:

The class attended the horticulture meeting where valuable orchard practices were given that can later be used in the school orchard and on the home farms.

## April 14:

The class put out 1,600 pounds of ammonium sulphate and 10-6-4 fertilizer in orchard test plots. Observations will be made during the season and yields checked next fall by the class.

## April 18:

The class planted 1,000 spruce and junipers in the forest. Six biology students volunteered to assist in this. A bird-feeding reserve is being developed. Seven varieties of fruit and seed-bearing plants are now set out. Six acres of the 53-acre plot have been set out in the past two years.

## April 27:

The class spent time in putting on the dormant oil spray in the orchard. Later on a check will be made in the laboratory to determine the effectiveness of this spray in destroying oyster-shell scale.

## May 9:

The class sprayed in the orchard, applying the "pre-pink" spray. Observations of the trunk condition of each tree

for grading by mice in previous years were made.

## May 11:

Classes planted white pines at the school forest. A thousand two-year seedlings were supplied by the state conservation department. The seventh-grade boys of Oak Park and Boardman schools were taken out and allowed to set out 10 seedlings each. This was under the direction of my students who have done considerable planting. This was a good project and possibly next year on Arbor Day it could be repeated.

## May 15:

Classes sprayed in orchard. Three sprays have been put on this season giving 11 different students actual experience in spraying and in driving the tractor. Three boys form a crew (two new boys and one experienced one used each time). Since last fall 187 hours of labor have been spent on this project, bringing the local F. F. A. chapter \$47. The chapter is given 25 cents per hour. Part of this is done on school time and part on the students' own time after school, on Saturdays, and during vacations. This money will be used for an educational trip in the summer of 1940 by the F. F. A. members.

## Suggestions for School Journeys

Some general implications can be drawn from a review of this diary of school journeys in agriculture. On any planned trip with a definite objective in mind to present to the student, there are many other observations that will present themselves as the trip is being administered. The solution of problems will be seen, or material presented that the students can draw upon at future times as they pursue their studies. Well-selected trips offer ample opportunity for students to become skilled in certain practices that they may use proficiently on their home farms. A wide range of types of trips gives the student unlimited material that he may use in the problems of his own supervised farm practice program.

## Book Review

*Agricultural Arts*, by Eugene Davenport and Aretas W. Nolan. 308 pp., illustrated, published by the Garard Press, Champaign, Illinois, price \$1.75. This book, designed to meet the demand for a beginner's course in farming, may serve as an introduction to vocational education in agriculture. The objective is to give the student an introduction to the fundamental problems of agriculture, and an appreciation of the opportunities of farming. No attempt is made to cover the subject, but certain phases are chosen as best affording some insight into the meaning and scope of agriculture, the materials and processes of the farm, and the problems that confront the farmer and his family. The selection of content is excellent, and the method of approach will appeal to the primitive and heroic instincts present in every normal child. This book should be widely used either as a text or as supplementary reading in schools where elementary and secondary agriculture are taught.—A. P. D.



# Supervised Practice

H. H. GIBSON

## Developing Ability to Finance a Farm Business: A Major Objective in Vocational Programs in Agriculture

H. H. GIBSON, Teacher Education,  
Corvallis, Oregon

THIS was one of 14 major objectives included in the recent preliminary report of the national committee on objectives in vocational education in agriculture. The general statement made in connection with this objective follows:

"The amount of capital invested and the high operating costs incident to securing and operating a farm business sufficiently large to make possible a satisfactory labor income, together with the changes in credit facilities and the methods of securing credit, make it important to emphasize the development of this ability in farming. It is recognized that some problems requiring ability in financing will appear in production, marketing, maintenance of farm equipment, and in practically all other problems in farming. Many problems in financing will be related to the farm business as a whole, as well as to the different enterprises. Financing a farm business involves:

- Determining the need for farm-financing
- Understanding credit facilities
- Determining the capital outlay needed
- Determining yearly operating cost
- Purchasing insurance
- Making credit statements
- Determining how loans may be repaid
- Making and using budgets
- Determining the type and conditions for obtaining finances

To what extent have we utilized the opportunities and facilities available for project-financing as a means of achieving this major teaching objective? In our teaching procedures have we covered the various aspects of this problem enumerated above in points a to i? Should we not re-evaluate our supervised practice programs, courses of study, and teaching procedures with reference to the contributions they are making to the attainment of this major objective: namely, ability to finance a farm business? As project programs increase in size and scope, and as they are looked upon more and more as a means of aiding the boy to get a start in the farming business on his own, project-financing becomes an increasingly important problem and responsibility for the individual boy.



H. H. Gibson

### PROJECT-FINANCING

Mr. State Supervisor and  
Mr. Agricultural Instructor:

It is not my primary purpose now to write an article on project-financing, but rather to encourage a number of state supervisors and teachers of agriculture to prepare reports or short articles on the extent and methods of project-financing, particularly thru banks and other lending agencies, in their respective states. It is hoped that these reports will include discussions of teaching procedures that have been found effective. Three or more issues of this section of *The Agricultural Education Magazine* could be profitably devoted to a discussion of this problem.

Washington has developed a state-wide organization having connections with local F. F. A. chapters and the various lending agencies as a means of encouraging more efficient methods of financing farm and project programs. It is hoped that the state supervisor of this state will make a report of this work soon. In another state, a representative of the Farm Credit Administration office, in co-operation with the state supervisors, devotes a considerable portion of his time in explaining and making available the facilities for project-financing. Mr. Supervisor, will you give the supervised practice section a report of any organized effort in your state to secure the co-operation of banks, farm credit agencies, or other organizations in the promotion of more adequate and efficient farm- and project-financing? Outstanding developments or trends with reference to the number, size, and character of loans would make an interesting report. Write a personal letter to the instructors in your state who are making most progress in helping the boys to solve this problem in their supervised practice programs. Have them mail their reports to you or direct to the editor of this section. Mr. Instructor, put in writing now that idea or experience you have had in helping your boys to solve this problem; and while the spirit moves you, mail your report at once to this column. Lately, certain supervisors and instructors have been long on promises but short on delivery of material for this section. It may be necessary to call the roll again soon.—H. H. Gibson.

### Parent Co-operation in Project-Financing— Limitations and Recommendations

Much of the project-financing is now accomplished thru the co-operation of the parents. Perhaps this is one reason that many boys are not given the opportunity to assume responsibility in this phase of the farming business. Frequently memoranda of financial agreements between father and son do not clearly define the responsibilities of each party for sharing the expenses and returns. Occasionally partnership arrangements are drawn up providing for a division of the expenses and receipts which, if carried out, would be grossly unfair and unbusinesslike for one person or the other. The writer has seen partnership arrangements between the boy and his father changed three times during the operation of a project, because the boy saw as the project progressed that if he abided by the original agreement, he would come out on the

short end of the deal. If no money changes hands between the boy and the dad, as is frequently the case, neither party realizes how unbusinesslike the arrangement has been. "It's all in the family anyway."

However, the importance and necessity of parent co-operation in financing projects must not be minimized. But the procedures thru parent co-operation should be businesslike and typical of those the boy needs to follow when negotiating a loan with a bank or person outside the family. Merely securing the money, credit, or other facilities necessary to finance a project is not the big consideration. From the educational standpoint, it is of more importance to provide the boy with every opportunity available for assuming typical financing responsibilities and to use project-financing as a means of developing those abilities he will need to possess later for successful financing of the farm business as a whole. Unless the boy's financial responsibilities can be specifically determined, and the conditions and methods of securing credit and repaying loans be clearly understood, the training the boy gets in project-financing thru parent co-operation will be negligible.

If the boy is to secure worth-while training in financing projects with parent co-operation, the following steps and teaching procedure are suggested:

*Step 1. Careful analysis of the proposed project enterprises is made.*

Factors of stability and adaptability to the home farm and to local types of farming must be considered. Outlook information and price cycle tables will be useful. Frequently new and potential enterprises involving a considerable cash investment may be more desirable than existing farm enterprises as a means of improving the organization of the farm and of increasing the size of the farm business to the place where both the dad and the boy can make a satisfactory income.

It is recommended that the tentative proposed project program be selected in the first place without any thought or reference to the limitations or ability of the parents to help finance it, and that major consideration be given to the type, size, and scope of project best adapted to the farm and the boy. Many highly desirable and possible project programs are compromised at the outset by the instructor's assuming too readily that the parents' inability to finance the project will be the limiting factor. In view of present-day credit facilities, this should be a secondary consideration.

If, on careful analysis, the project program proposed seems to be a sound undertaking and investment, it will be time then to submit it to the parents, when all parties concerned can decide to what extent and in what ways the parents can assist and what outside sources and methods of financing will be needed.

The instructor, of course, will need to give class demonstrations to make clear the uses of the budget and the procedures in budget-making. In connection with project-financing, the project budget helps in the following ways:

- To show the boy the kinds and amounts of things required to carry out a proposed project program.
- To determine when and in what amounts cash will be needed so that financial arrangements may be made accordingly.
- To show how feed crops may be raised, equipment made, etc., as a means of reducing cash costs.
- To make possible the comparison of enterprises with reference to probable returns and costs—cash and non-cash.
- To determine when and in what amounts the loan can be repaid.
- To determine whether borrowing money for a proposed project program is likely to prove a sound investment.
- To make possible the determination of fair and businesslike financial or partnership agreements between the boy and parents, by giving both a basis for deciding how each may share in the division of costs and receipts.
- To stimulate interest in keeping records as a means of checking on costs and other outcomes which measure the success of the project.
- To stimulate interest in constant observation and checking of project practices with reference to their possible effects on costs and receipts.

*Step 3. The boy presents budget to class or F. F. A. chapter members for their consideration and approval.*

This step would be particularly necessary where it is the practice for the F. F. A. chapter or project loan committee to approve and make loans to F. F. A. members. At this time class members, as well as the individual boy who makes his budget report, will discover many problems which have a bearing on project practices as well as project-financing. Budget-making is one of the best approaches to a discovery and analysis of jobs and problems that must be considered in project-planning.

*Step 4. The instructor, in conference with the boy, corrects and approves the budget.*

The instructor should see that the boy makes conservative estimates and that all items of cost are as complete and accurate as possible. From this study the boy should determine when and in what amounts cash or other things will be needed, and when and in what amounts he will be able to repay loans.

*Step 5. The boy presents the budget to his parents for their approval and their consideration of what financial assistance they may be able to give.*

*Step 6. The instructor, the boy, and parents, together in conference, finally agree upon the financial arrangements to be made—what size of loan, if any, is needed, and whether it shall be obtained from the parents, local banks, or other sources.*

There is no device comparable to the

part or all of some enterprise already found on the farm. In such cases, it is likely that little, if any, cash will be needed, and the boy will merely give a note to cover the appraised value of the stock and other items. Again the selection of new enterprises or the expansion of some minor farm enterprise might greatly improve the project program and the organization of the farm business. But since a cash investment would be needed, such opportunities may be too quickly dismissed. Consequently the boy not only accepts a less desirable type of project, but is deprived of the responsibility and experience he should get in negotiating a needed bank loan.

When a project program is approved and financed under these conditions, all parties to the agreement know what it is about. Parents are ready to approve the project practices which the boy decides to adopt. The way is paved for the instructor to do effective project supervision, and, most important of all, the boy gets worth-while training in farm-financing. Instructors who are aggressive and bold, yet tactful in developing businesslike attitudes and relationships between the boy and his parents, usually succeed in getting them to approve the financing of new undertakings or the needed expansion of existing farm enterprises for which cash investments will be required.

*Step 7. The boy draws up a project financial agreement which is signed by both him and his dad. If a loan is obtained from the parents the boy should sign a note secured by a chattel mortgage on his project and other assets.*

Some instructors have used local attorneys who are particularly interested in the local F. F. A. program to discuss the different types of contracts and mortgages and to draw up contracts, semi-legal in form, that would hold in a court of law. The parents understand that the purpose is not to bind either them or the boy thru a legal contract to an agreement in which their word would not hold, but rather to give the boy a business experience he would not otherwise get in the usual parent and son forms of project agreements.

*Step 8. Instructor and boy check up on costs and income, thru use of project records, as the project progresses; and see that loans are paid according to financial agreement.*

### Securing Loans From Banks and Other Sources Other Than Parents

Developing the boy's ability to finance a project program or modern types of farming business cannot be accomplished thru forms of parent co-operation alone. Since we learn by practice, the boys should be given opportunity as the need arises to perform the various transactions involved in securing and repaying bank loans.

It should be stressed again that the practice of depending upon parents for all forms of needed financial assistance often results in the selection of projects undesirable in type and inferior in quality. For example, it is a rather common practice, not undesirable in itself, for

### Bank-Loan Procedures

The procedures already recommended for negotiating a loan with parents, altho too seldom followed, should hold in the main for bank loans, P. C. A. loans, and others. Before applying for a loan from a bank, both the boy and the instructor should be doubly sure that the loan for the proposed investment is sound. The trustworthiness of the boy must be considered. The instructor will introduce the boy to the banker or to others, and recommend him for consideration of a loan. The boy negotiates the loan. By the time he has prepared his budget, submitted it to parents and F. F. A. members for their consideration and criticism, and to the instructor for any needed revision and approval, the boy should know his ground well and be able to discuss intelligently and forcefully with the banker his reasons for the loan. If possible, the boy should secure the loan and sign a note secured by chattel mortgage on his project or other assets, without endorsement.

A somewhat hasty survey and report made by teachers of agriculture in Oregon at their annual 1939 conference showed the following:

Thirty-eight of the 50 departments reported 206 loans to students, totaling \$10,748; the average loan for all boys was \$52. For western Oregon, 22 schools reported 78 loans totaling \$3,036, average loan \$39. For eastern Oregon, 16 schools reported 128 loans totaling \$7,712, average loan \$60. The largest number of loans made to a single chapter was 31, totaling \$1,400. This chapter was engaged in various forms of F. F. A. co-operative activities, involving financial transactions.

### Sources of Loans

Local banks	157
PCA	23
Instructors	10
Private persons	8
Student or school funds	7
FOA	1
Total	206

### Interest Rate

No interest	14 loans
At 4 per cent	3 "
At 5 "	46 "
At 6 "	99 "
At 7 "	2 "
At 8 "	42 "
Total	206

(Continued on page 138)



## Shop Training and Formation of Habits

G. R. WADE, Teacher,  
Savannah, Missouri

THE average beginning shop boy is a freshman. His habits and ideas are plastic. They are ready to be moulded into permanent forms. It is the duty of the instructor to help the boy to develop the proper form of this permanent moulding process.

If a boy is in our shop for two years we may be reasonably sure the home shop will be kept and conducted in a manner similar to the one at school. I believe one of the qualifications of a good instructor is that he be able to teach a boy the correct habit formation. He will care for the tools in his home shop the way he learned to care for them at school. A good shop with good tools is a barometer of a successful farmer.

Desirable habits should be formed the first few days in the shop. It is easier to form a new habit than to break an old one. During the first few days of school the boys are more expectant of learning new things than later on in the year. Everything in the shop is new to them and it looks wonderful. They listen more closely than later on in the year. They are more eager to learn about all of the new tools. Some tools they have never seen before. If boys get started right the first day in shop, it is less difficult to keep them right the rest of the year.

They must be observed closely for the first month to make sure they use tools properly.

IT IS difficult for a new boy to distinguish between a hot cutter and a cold cutter. If you do not watch him carefully he will be cutting red hot iron with a cold cutter. At this time call shop work to a halt. Ask every boy if he knows what is wrong with the operation. Emphasize how important it is to use the proper tool for each operation and how easily a tool may be ruined by improper use. Explain how hot and cold cutters are made and why they should be used.

Do likewise if a boy tries to cut iron on the face of the anvil, leaves a plane right side up, or gets oil-tempered steel in place of water-tempered steel, or knife steel for mild steel, etc. After doing this a few times they will learn very rapidly the correct use of every tool in the shop, the proper use of the different kinds of irons. They will not try out a cold chisel on a rake tooth. They must know the different irons in the shop as well as they do the different candy bars at the candy counter.

Accuracy is the easiest habit to neglect. Accuracy should start with the boy's first job and continue strictly thereafter. If the first job shows too much inaccuracy it should be repeated and the repeating continued until the degree of accuracy is attained. Care must be taken at this time not to give

the boy discouragement. If you can say something nice about his job, now is the time to do it. It is the duty of the instructor to make the boy realize inaccuracy and want to do it over. Accuracy should be rewarded with a high grade and the pride of every shop boy.

I believe all tools should be silhouetted. If they are, the beginning boy can readily see where to place every tool. This is an excellent method for checking tools. As soon as a boy is thru with a tool it should be returned to its proper place. When the next boy wants it, he will know where to find it. If they do this at school they will do it at home and always know where to find their tools. Many workmen spend much time looking for misplaced tools or tools covered up in shavings.

WHEN a boy starts a job he should first examine his tools and see if they are sharp or properly adjusted. If not, the best time he can spend is sharpening or adjusting the tools. Dull tools will make the boy discouraged. Our most skilled cannot do good work with poor tools. Some boys would rather try to work with dull tools than take time out to sharpen them. Before a boy starts with a new tool, the instructor should make sure he knows how to operate and properly adjust the tool. Good sharp tools and good work go hand in hand. It has been said an instructor can be judged by the condition of the tools in his shop.

We supply a large stock of materials in our shop. Our boys know the prices of our different materials. They get material whenever they want to and know just what it will cost. This method, I believe, is well worth while. It teaches the boy how to purchase, and knowing this will be a great asset to his coming career.

As soon as the boy secures the desired amount of stock material he should return it to the proper place. This helps to keep the shop in order and does not allow the stock to become damaged.

Habits of honesty they must possess. This must first be taught in the classroom. It should be put up as one of the outstanding goals. An honest boy may have extra privileges and may be trusted. In our shop we have a money drawer. In this drawer we keep an account book and some money. If a boy does not have the money for his materials at the end of the period we allow him to charge his materials until he gets the money. If he has the money he pays for the materials he used that day.

If I am not there at the end of the period some boy takes my place, checks in money, and makes change. Recently, I was absent on account of illness. The boys worked alone for one week, checked their own materials, charged their own accounts, and made change. I do not believe we have lost one penny this year. We have been doing this for five years. Any boy in class may have the keys to work in the shop any time he so desires, during school, after school, at night, and on Saturdays. We do not

let a beginner work alone for the first month, for two reasons. First, we want to teach him honesty and the rules of the shop, and secondly, he has not learned the proper uses of the different tools.

Idleness is certainly a waste of time. We never have a boy idle. Usually our boys have a month's work planned ahead. Some years ago we were bothered with idleness and we solved it by having the idle boy do such work as filing teeth in an old saw, then filing them off again, carrying coal, sweeping the shop or digging a ditch, then filling it up again. I believe if the shop work is properly motivated idleness will be a small problem. Students should have the idea that there is not anything that is impossible to make. You can give them this idea by making some very difficult pieces for demonstrations. Encourage them to attempt a difficult job and help them make a success of it. It will be a pleasure to each boy, his parent, and the instructor. We have first-year boys now who have made butcher and paring knives better than one can buy at the store. One boy made a complete pocket knife, one a razor, and several made pistol-grip adjustable leather cutters.

The boy should be taught to attempt the most difficult job. Help him with it, analyze it thoroly, start step by step, and it will be completed with pride and joy to the boy. The more difficult the job the more he appreciates it.

Plans are one of the most important units of a successful shop course. The job must be carefully planned before the boy starts work. All hazards must be removed so the boy may work with pleasure and not grief and worry. It is much easier to complete a job after first building it on paper and correcting the necessary errors.

Neatness and accuracy show what skills have been developed. The instructor should be very strict on accuracy, especially with a new boy. The quality of work that he learns to do is the kind of work he will do the rest of his life. Form the right habit in the beginning, and the boy will be right from then on.

BOYS must be taught companionship. We know we can not live without our neighbor. They must learn each other's habits, work together, help each other, consult other boys on difficult problems, and get other boys' ideas.

I believe that teaching the ability to buy and sell with a profit has been severely overlooked by most instructors. Boys should have an idea of what an article is worth. They should know the comparative values of new and used articles. They should be taught to buy and sell. When they go on the farm they must buy and sell, and if they are not taught this in school they must learn for themselves by experience, and we know of cases where this method has been rather expensive. The boy who knows values, how and when to buy and sell, has an advantage over his neighbor farmers.

## Training Program In Farm Shop for Teachers of Vocational Agriculture

GEO. T. SARGENT, Teacher Education,  
Auburn, Alabama

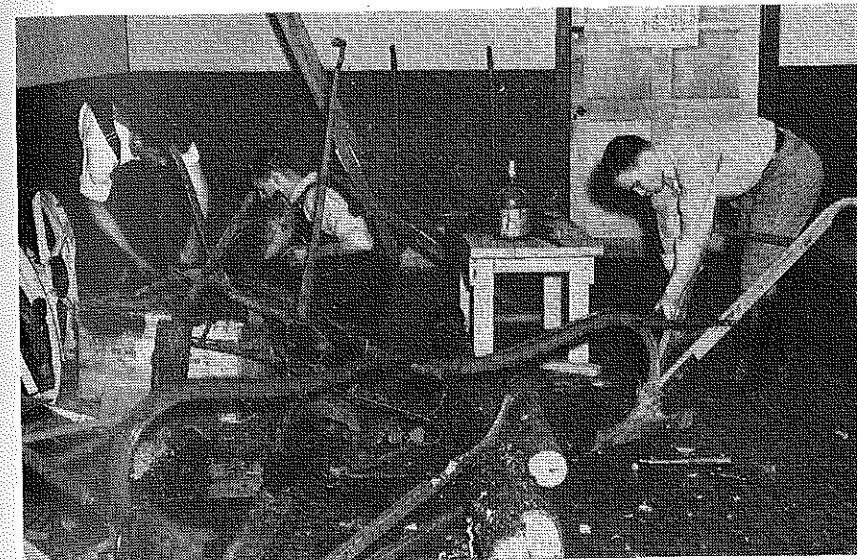
TO ASSIST further in promoting the farm-shop program in Alabama, a new phase has recently been added to the teacher-training program in the form of a complete new shop and shop program for trainees. On July 1, 1938, an additional teacher-trainer was added to the staff with no duties other than those relating to the farm-shop program. The program then was set up on a co-operative basis between the teacher-training and the industrial arts departments of the college.

During the first semester, the shop, equipment, building, program, and specific plans were set up. The plans and program were based partially on the jobs the teachers in the field find constantly confronting them, with additions to them to give other skills and methods in farm-shop teaching.

## Emphasis on Farmers' Needs

The shop course was set up on the basis of one hour in methods and six hours per week in actual skills work. The methods course deals specifically with program-planning for shop work; making courses of study; selection of materials, tools, and shop rooms. Emphasis will be given on farm repair, farm buildings, painting, glazing, rope work, belts, conditioning tools, concrete mixes, blueprint study and reading, figuring bills of materials, rafter cutting, and others.

During the first month of the course,



skills were developed in equipping the shop with tables, work benches, lockers, saw horses, trailer, forge, and in many other small jobs necessary in setting up the shop. Sections of students were limited to 24, in the attempt to give personal assistance and supervision to them in their work.

Before the course began, the teacher had spent considerable time contacting and discussing the program with farmers in the community. The opportunity for having certain farm equipment repaired was offered these farmers.

## Participating Experiences

With the stage set, small groups of the trainees were assigned farms to be visited. They discussed a shop program with each farmer, outlined plans for him to follow and aided him in selecting and bringing equipment to the shop for conditioning. Not a single farmer contacted failed to co-operate enthusiastically with this program, even to the buying of parts, when necessary, for the repair of his equipment.

For keeping a record on ownership and student doing repair, a work card was developed, giving name of farmer, address, work plans, date article was to be returned, student doing work, cost if any. In addition, the teacher kept a list of each article in the ledger, giving the above information and a grade for the pupil.

The course is not far enough advanced to point out many problems on special activities, but the fact that 81 repair jobs came in from the first seven farms visited should give the realization that the farmer as well as the student is interested in this kind of program.

In assistance for teachers who are now on the job three shop courses were given during the 1939 summer school of instruction. Interest in these courses was expressed in the 1938 summer school of instruction when 100 out of 156 teachers asked for shop courses during the 1939 summer.

## Observations

1. Farmers are interested in farm-shop program.
2. Students enjoy constructive shop work.
3. Students react favorably to methods when applied.
4. Alabama farms are crowded with repair jobs.

5. Repair work can be gotten from farms, if contact is made and farmers understand the set-up.

6. Farmers are glad to furnish needed parts and will come in and watch boys work.

7. Farmers may want too much done for them.

8. Methods in shop can be practical and useful to trainees.

9. Farm shop is one major way to sell the program in any community.

10. Studies need to be made to determine shop needs for a community.

## Cyrus Hall McCormick

(Continued from page 125)

and manufacturing procedures originated by McCormick were imitated by other industrialists to their own advantage as well as that of the consumers.

The nation benefited too from the philanthropy of McCormick. Four professorships in the Presbyterian Theological Seminary of the Northwest at Chicago were endowed by him. He established the *Expositor*, a religious periodical whose purpose was to facilitate understanding between the North and South. Washington and Lee University was the recipient of a McCormick endowment in 1866.

McCormick may even be credited with raising the prestige of the United States in the eyes of the other nations. From 1837 to 1850 the United States was still trying to gain recognition in Europe. The enthusiasm accorded to McCormick and his reaper in other lands was reflected in no small measure upon his country as well. He was an unofficial but exceedingly successful diplomat.

The evaluation of Cyrus McCormick expressed by D. P. Holloway, a commissioner of patents of the United States, is worthy of repetition: "Cyrus Hall McCormick is an inventor whose fame, while he is yet living, has spread thruout the world. His genius has done honor to his own country and has been the admiration of foreign nations, and he will live in the grateful recollection of mankind as long as the reaping machine is employed in gathering the harvest."

## The Song of the Reaper

A universal melody that can be heard every month in the year somewhere in the world is the song of the American-made reaper. Yet this worldwide symphony of the harvest time had a modest beginning in a forge shop on the McCormick farm in Virginia in 1831—a song of progress and plenty, heard for the first time a little over one hundred years ago. Cyrus McCormick himself, as he walked behind his first machine, could not visualize the fact that his invention was destined to become the foundation for all mechanized agriculture.

The story of the development of the reaper is a beautiful saga of progress. From the crude reaper of 1831 has come the modern harvester-thresher which cuts fifty acres a day, threshes the grain, cleans it, and delivers it ready for the granary. From the simple little log forge shop in Walnut Grove, Virginia, has developed the International Harvester Company—one of the greatest manufacturing, advertising, and selling organizations in the world. The sale of the reaper increased each year from one in 1831 to 54,841 machines in 1884, the year of McCormick's death in Chicago on May 13th. The world owes a debt of highest gratitude to the inventor, the manufacturer, the advertiser, and the salesman—Cyrus Hall McCormick.

Every man is in life imprisonment until he is self-discovered, until he finds out who he really is and what he was created to do.—Harry Collins Spillman.



# Studies and Investigations

C. S. ANDERSON

## How Fifty Young Men Became Established in Farming<sup>1</sup>

LLOYD T. CLARK, Teacher,  
Olney, Illinois



L. T. Clark

THIS study was conducted in order to uncover facts of value to young people who choose farming as their occupation and to assist teachers of agriculture and others in related work who help to train, advise, and place young people in various lines of work pertaining to agriculture.

Richland County, the area chosen for this study, is located in the southeastern portion of the state of Illinois. The greater part of the land surface of the county is low and poorly drained prairie. The remainder is rolling and undulating in character.

The crop yield index of Richland County, based on yields of corn, oats, and wheat, was 66.7 compared to the state index of 100 for the period 1924-33.

According to the census figures of 1935, the average value per farm in Richland County, including land and buildings, was \$3,281. The average size of farm was 108 acres, and the average value per acre was \$30.43.

Sixty percent of the farms in Richland County in 1930 were operated by the owners, and 39.2 percent by tenants. Twenty-five percent of the rented land was operated by tenants related to the landlord.

### Procedure in Making the Study

All data were gathered by personal interviews made on the farms, 38 of them having been made by the writer, and the remaining 12 being secured by four assistants. No selection of the young men was made with regard to schooling, success in farming, financial condition, or previous opportunity for establishment. The only requirements were that those interviewed be men under 40 years of age and that they be established in farming at the time of the interview. "Established in farming" in this case is assumed to mean working as owner, renter, or partner with a definite agreement as to the division of income. This status would imply that the man had actual managerial and operative responsibility.

All young men who were asked to supply information did so willingly, thus making the response to the questionnaire complete.

**Farming Status of Fathers.** Many young men who become farmers may be influenced by examples of their fathers. It was found that 47 of the

young men were born on a farm. The farm background of the young men studied is shown by the status of their fathers in table 1.

TABLE 1. FARMING STATUS OF FATHERS

Percent of young men whose fathers were farmers.....	96.
Average number of acres in home farm.....	172.
Number of fathers who were renters.....	3.
Number of fathers who were owners.....	45.
Labor income from home farm:	
Number very good.....	7.
Number good.....	18.
Number fair.....	22.
Number very low.....	1.

The average size of the home farms of the young men studied was 171.5 acres, whereas the average size of the farms in Richland County in 1935 was 108 acres. This would indicate that a large majority of young men who are becoming farmers in the county were raised on farms considerably above the average as to size.

Since 49, or 98 percent, of the young men were from farms whose income was fair or better, it would indicate that unless the labor income of the home farm falls within one of these groups, it is very difficult for young men to become established in farming.

**Influence of Brothers and Sisters.** It was found that 44 of the young men had either brothers or sisters, or both, and that the average number of these was 3.68. The data indicated that in Richland County the presence of a number of brothers in the family does not prevent young men from becoming established as farmers. On the other hand, it would seem that partnerships and other types of co-operation among brothers are of material assistance in their establishment in farming.

**Formal Education of Young Men.** Data relating to the formal schooling of the young men are given in table 2.

TABLE 2. NUMBER OF YEARS OF SCHOOLING COMPLETED

Years	No.
Seven.....	5
Eight.....	10
Nine.....	2
Ten.....	5
Eleven.....	2
Twelve.....	23
Thirteen.....	1
Fourteen.....	2
Total.....	50

**Agricultural Training.** The formal schooling which the young men have had in agriculture is shown in table 3.

TABLE 3. FORMAL SCHOOLING IN AGRICULTURE

Extent of Study	Number of Cases
In eighth grade.....	45
In high school.....	27
Thru first year only.....	9
Thru second year only.....	12
Thru third year only.....	6
In college.....	2
In evening school.....	9
In part-time school.....	6
In short course.....	1

**Age at Time of Establishment.** The facts show that young men included in this study became established in farming early in life.

Table 4. DISTRIBUTION, BY AGES, AT TIME OF ESTABLISHMENT IN FARMING

Age When Established	Number
31.....	1
30.....	0
29.....	0
28.....	0
27.....	1
26.....	5
25.....	1
24.....	3
23.....	3
22.....	5
21.....	9
20.....	9
19.....	7
18.....	2
17.....	2
15.....	1

Since 74 percent began farming between the ages of 19 and 24 inclusive, it would seem that young men of this age on farms, but not established, need guidance and advice, looking toward establishment in farming.

**Farming Status of Young Men.** Nineteen of the young men owned their farms, 15 were renters, and 16 were partners with a definite agreement as to the division of income, which indicates that these young farmers of Richland County are fairly evenly divided as to farming status.

**Comparison of Farming Status.** Since one of the purposes of this study was to obtain information that would be of assistance to teachers, a comparison of the farming status of former students with that of the group as a whole is shown in table 5.

It will be observed in this table that on the average the former students of vocational agriculture were established at a slightly younger age than that for the entire group. It will also be noticed that 42.1 percent of the group of young men who were owners were former students, and that the average size of

farm owned was approximately 100 acres larger than the average for the total. These facts indicate that former students were not handicapped as regards ownership of farms, but had a slight advantage in that the farms owned by them were somewhat larger than the group average, even tho they had spent some time away from the farm while receiving training. Eighty-seven and five tenths percent of the young men who were farming in partnership were former students of vocational agriculture, and this fact would seem to indicate a close correlation between the supervised practice work of the former students, and the formation of partnership agreements with their parents. Since only 33.3 percent of the young men who were renting were former students of vocational agriculture, it would seem to indicate that this group was not particularly given to tenant farming. The amount of money necessary to begin farming was found to be \$125.49 less for the former vocational agriculture students than for the group as a whole. This is probably due quite largely to the fact that a large number were farmers in partnership with their parents, and therefore did not need to make as large investments as those who were farming as owners or renters.

**Years in Each Occupational Status.** The process of becoming established is a progressive one and it is often necessary for young men to change from one form of farming status to another. The average number of years spent in each status by the young men answering the questionnaire is shown in table 6.

From this table it will be seen that a large number of young men were at home with a definite or indefinite allowance, or working as farm laborers for wages. This indicates that working as a farm laborer, either at home or away from home, is one of the steps used by many in getting started in farming.

TABLE 5. FARMING STATUS OF FORMER STUDENTS COMPARED WITH STATUS OF ALL YOUNG MEN STUDIED

	Former V. A. Students	All Young Men	Percent V. A. of Total
Number.....	27	50	54
Average age of establishment in farming.....	21.2	21.5	....
Number who were established as owners.....	8.	19.	42.1
Average size of farm owned.....	121.9A	105.1A	....
Number in partnership in farming.....	14	16	87.5
Average size of farm of those farming in partnership.....	204.2A	213.1A	....
Number who were renters.....	5	15	33.3
Average size of farm rented.....	108.A	129.A	....
Average amount of money used to get started..	\$500.30	\$625.79	....

TABLE 6. OCCUPATIONAL RECORD PRIOR TO ESTABLISHMENT IN FARMING

Occupation Followed	Number of Cases Reporting	Av. No. Years in Each Status
At home farm with definite or indefinite allowance..	22	2.3
At home as farm laborer with specific wages.....	7	2.7
Farm laborer with specific wages away from home....	5	3.4
At farm home with income from one or more enterprises.....	19	3.4
Other status, miscellaneous and odd jobs while living on the home farm.....	6	4.2
Occupations other than farming.....	13	3.7

	Number of Cases	Amount
Average amount of savings.....	20	\$ 502.25
Average amount borrowed.....	11	430.91
Average investment in:		
Machinery.....	5	120.00
Land.....	2	1,400.00
Livestock.....	31	171.65
Average amount obtained from other sources.....	4	628.00
Average amount from all sources.....	42	625.79

TABLE 8. INFLUENCE OF PARENTS IN GETTING STARTED IN FARMING

Influences Reported	Number of Cases
Shared in the general farm business.....	23
Shared in the livestock enterprise.....	6
Shared by starting in club work.....	2
Was allowed to operate a separate farm owned by father.....	1
Was permitted to share on home farm because father worked at a trade.....	1
Total number influenced thru sharing.....	33
Were allowed to use home farm equipment.....	6
Received financial aid.....	6
Farmed because parents advised it.....	2
Given a farm by father.....	1
Given a farm by grandfather.....	1
Inherited an interest in a farm.....	1

It is further shown that starting with one or more enterprises, or becoming a partner in the home farm business, was the most important method used by the young men in becoming established in farming. This information indicates that young men on farms should be encouraged to carry supervised practice work, in connection with either all-day or part-time classes.

**Financial Condition.** The question of how much money is needed to begin farming and how to obtain it are per-

plexing problems that face those who wish to become farmers. In table 7 is shown the financial condition of the young men at the time they began to farm.

Since the average amount of capital owned by the young men at the time they started farming was \$625.79, it would seem that the young men studied were able to begin farming with a comparatively low investment. It is also shown in the table that only 11 young men found it necessary to borrow money in order to begin farming. Since 20 had money on hand to the average amount of \$502.25, it would seem that they had been able to save from their earnings while progressing toward establishment in farming.

**Influence of Parents.** From the data in table 8 it is evident that the parents had a very definite influence in getting the young men started in farming.

The effect of giving a boy a start thru sharing in the home farm business in some manner is very strikingly brought out in the table.

**Factors Influencing Farming.** The young men included in this survey were asked to mention several factors that they considered of importance in helping them to become established as farmers. A list of those influences mentioned is shown in table 9.

It would appear that there was a variety of factors that had an influence upon the choice of farming by these young men and that a selection was determined by various combinations of these factors.

### Summary

1. The study showed that there was a positive relationship between being reared on the farms which were owned by the fathers and the choice by the young men of farming as an occupation.

2. The presence of a large number of brothers in the family did not prevent

lished in farming. On the contrary, this appears to be a favorable situation that should be given more careful study by research workers and other leaders of farm youth.

3. More than half of the young men had received training in agriculture in high school, which indicates that among this group studied, former vocational agriculture students were becoming established in farming. A number of those studied had availed themselves of further agricultural training in college, part-time, or evening school. This would seem to show a need for further organized instruction for out-of-school young men.

4. Since a large majority became established between the ages of 19 and 24 inclusive, it would seem that this is the age group that needs assistance in becoming established as farmers. There was found to be a significant increase in the number of young men established at the age of 19, which agrees with previous studies made by other investigators.

5. It was brought out in the survey that the former students of agriculture among those studied were becoming established at approximately the same age as the entire group. In the ownership status, the former vocational agriculture students seemed to have a slight advantage as they owned larger farms than the average of the group. In the partnership farming status, it was shown that 87.5 percent of those farming as partners were former students of agriculture, which would indicate the possibilities for the development of father and son, or brother and brother partnerships, as a logical outgrowth of the supervised project programs of future students. These facts point out very clearly that the organized training in agriculture received by these young men was a helpful factor in their placement in farming.

6. Since the young men were becoming established in farming with a small capital investment, it would seem that the attention of farm leaders, credit associations, and other agencies, should be focused on the problem of assisting

young people to become established in farming with a minimum expenditure of money. This study shows that this can be done to a large extent by the development of some type of sharing agreement between the parents and their sons. This is a problem that needs more intensive study and analysis by trained research workers.

7. There was a great variation in the factors which were mentioned by the young men as influencing or helping them to become farmers. This points out very clearly that counselors and leaders of farm boys must be especially well trained and able to find the par-

## Determination of Managerial Training Content for the Course in Farm Management for All-Day Pupils in the Sussex, New Jersey, High-School Area

RUSSELL B. DICKERSON,<sup>1</sup> Teacher Education, State College, Pennsylvania

IN THIS study the writer attempted to discover, select, evaluate, and organize the managerial training content for a course of study in farm management for all-day pupils in vocational agriculture in the Sussex high-school area.

The curriculum in vocational agriculture in the Sussex high school, like the other curricula, extends over a period of four years. The first three years of this curriculum are covered by a course of study which cuts across the major enterprises (milk, eggs, apples, and peaches) of the area, thus making it possible for the pupils to study some of the important jobs of all the major enterprises each year. During these three years the pupils study, first,



R. B. Dickerson

the operative and then the managerial aspects of farm enterprises and, at the end of the third year, they are prepared to make a study of the managerial or business side of the farm as a whole. This work constitutes the course in farm management.

"The major aim of vocational education in agriculture is to prepare persons for efficient production and disposal of agricultural products, thereby providing opportunity for better living conditions on farms and a service to the nation."<sup>2</sup> The curriculum in vocational agriculture serves as a pattern by means of which this aim is carried out. Having completed the three-year cross-section course of study the time arrives when each pupil needs to consider, not only the managerial aspects of the separate major enterprises on his farm, but also the managerial aspects of the enterprises taken together.

Without such training the pupil is likely to consider his farm as a series of units without any co-ordination of the separate units. Then, in addition to the major enterprises on a specific farm, there are certain contributory and minor enterprises. These, together with the major enterprises, must be organized into one whole, constituting a farm business. Since 60 to 75 percent of the pupils who elect the curriculum in agriculture in the Sussex high school have become farmers after leaving high school, the work in farm management is necessarily a very important part of the curriculum in vocational agriculture.

IN THE discovery of managerial content, the writer drew heavily on the farm management surveys made by Waller and Rauchenstein<sup>3</sup> and also secured certain factual data thru a survey, made by 35 of the pupils who had studied agriculture in the Sussex high school.

In the selection of content to be evaluated by the jury, the writer consulted books, other publications, and courses of study of a farm management type. In the evaluation of content he selected and used a jury made up of a dairy farmer who was a former student, a poultryman, and a fruit grower who was

1 A study made under the direction of Professor G. A. Schmidt, Colorado State College, Fort Collins, Colorado.  
2 Hoopes, L. B. "Factors Affecting Establishment in Farming." *Agricultural Education Magazine*, 10: 194-5, April 1938.  
3 Hoskins, Edwin Ray. *Young Men in Farming*. Wash., D. C., U. S. Gov. Print. Off., 1936, 117p. (U. S. Office of Education. Vocational Education bulletin No. 188, Agricultural Series, No. 49).  
4 Martin, Howard. "Study of Out-of-School Young Men." *Agricultural Education Magazine*, 10:34-5, August 1937.

made a master farmer a few years ago—all in the area—together with the county agricultural agent, the county 4-H Club leader, the teacher of vocational agriculture in the Newton high school, Sussex County, and the writer.

The content was selected and evaluated on the basis of such criteria as

### CHECK LIST FOR MILK PRODUCTION AND OTHER DAIRY TYPE ENTERPRISES

#### FARM MANAGEMENT JOBS IN THE DAIRY TYPE OF FARMING

CRITERIA\*  
B S P T

1. Determining what enterprise (major, contributory, and minor) to conduct on the dairy type of farm.....	6	5	5	5
2. Determining the optimum acreage of the dairy farm.....	7	5	4	6
3. Determining the size of the dairy farm in terms of man, horse, and machine power.....	6	3	6	5
4. Locating a dairy farm.....	6	4	4	5
5. Renting a dairy farm.....	5	2	3	3
6. Buying a dairy farm.....	5	2	2	4
7. Financing the dairy business.....	5	6	6	3
8. Providing farm labor.....	6	5	5	4
9. Managing farm labor.....	6	5	4	4
10. Determining the enterprise on which to keep records.....	6	5	4	3
11. Taking the inventory.....	5	5	5	4
12. Determining reliable sources of cattle and feeds, seeds, fertilizer, and equipment.....	5	7	6	5
13. Buying milk cows.....	3	7	6	3
14. Buying calves.....	3	4	1	1
15. Buying feeds.....	5	6	6	5
16. Buying seeds.....	5	2	6	4
17. Buying fertilizer.....	5	1	6	4
18. Buying lime.....	4	2	6	4
19. Buying tools and machinery.....	6	3	6	4
20. Buying building material.....	4	2	5	4
21. Buying fencing material.....	5	2	6	4
22. Finding markets for dairy products.....	3	6	6	5
23. Insuring dairy buildings and equipment.....	4	1	6	3
24. Insuring livestock.....	4	3	6	3
25. Insuring stored grains, feed, and other supplies.....	5	2	4	4
26. Determining what dairy farm improvements to make.....	4	3	4	5
27. Determining what farmstead improvements to make.....	4	2	4	2
28. Making returns for tax assessments.....	2	2	1	2
29. Paying local taxes.....	4	3	4	2
30. Paying state taxes.....	3	3	3	2
31. Paying income taxes.....	1	1	1	2
32. Establishing relations with neighbors.....	6	4	6	3
33. Affiliating with agricultural organizations.....	6	4	4	3
34. Determining what support to give local or state proposals pertaining to public utilities or public services.....	5	2	4	2
35. Determining what support to give governmental proposals or movements affecting the welfare of the dairyman and the general public.....	3	3	5	3
36. Selecting a dairy breed for milk production.....	4	5	7	3
37. Determining whether to select purebreds or grades.....	4	4	7	3
38. Determining the size of the milking herd.....	4	6	6	4
39. Determining whether or not to raise calves.....	4	5	7	3
40. Replacing milk cows.....	5	5	6	3
41. Choosing a herd sire.....	5	6	7	2
42. Determining what milk production records to keep.....	5	4	5	2
43. Keeping the records.....	4	6	5	5
44. Determining how to house the dairy cattle.....	4	2	5	2
45. Building a dairy barn.....	4	1	3	1
46. Winter feeding of dairy cows.....	5	6	5	3
47. Determining what roughage to feed.....	5	6	5	3
48. Feeding the dairy cows during the pasture season.....	5	6	6	3
49. Pasturing the cows.....	5	4	6	2
50. Marketing the milk.....	4	6	6	4
51. Determining how to maintain sanitary conditions on the dairy farm.....	5	6	6	3
52. Summarizing the records and accounts at the close of the accounting period.....	6	3	4	4
53. Interpreting the records and accounts.....	3	2	3	3
54. Selecting contributory dairy enterprises, such as silage, corn, and hay.....	5	4	6	4
55. Determining the extent of each contributory enterprise.....	5	2	6	4
56. Deciding on a plan of management for each contributory enterprise.....	5	2	6	2
57. Selecting minor enterprises in poultry, fruit, and so on.....	5	2	5	3
58. Determining the extent of each minor enterprise.....	5	2	5	4
59. Deciding on a plan of management for each minor enterprise.....	4	3	5	4

\*B—belonging; S—significance; P—probability; T—type

production, and the last six combinations of jobs in contributory or minor enterprises occurring in the dairy type of farming. A similar procedure was used with poultry and fruit. The check list was criticized by members of the departments of agricultural education and agricultural economics and was revised in accordance with their suggestions. The jury method was used in the evaluation of the content. The check list for the dairy type of farm as evaluated by the jury is shown on this page.

In organizing the course, the first 35 jobs were so stated that they would cover the criterion of "belonging" to any of the three types. There were 20 belonging to the milk production enterprise; 13 to the poultry enterprise; eight to apples, peaches, and strawberries; and lastly, five combinations of jobs that are supplementary or contributory to milk, eggs, apple, peach, or strawberry production. The following is an abbreviated outline of the content in Farm Management, in terms of management jobs:

#### I. Content Constant to Milk, Egg, Apple, Peach, and Strawberry Production

- Determining what enterprises (major, contributory, and minor) to conduct on the farm
- Determining the optimum acreage size of the farm
- Locating a farm
- Finding markets for farm produce
- Paying local taxes

#### II. Content Constant for the Milk Production Enterprise

- Selecting a dairy breed for milk production
- Determining whether or not to raise calves
- Pasturing cows
- Marketing milk
- Interpreting the records and accounts

#### III. Content Constant for the Egg Production Enterprise

- Determining what egg production records to keep
- Constructing poultry buildings
- Feeding the laying flock

#### IV. Content Constant for Apples, Peaches, and Strawberries

- Selecting varieties of apples
- Planning the spraying program

#### V. Contributory and Minor Enterprises Common to Milk, Egg, Apple, Peach, and Strawberry Production

- Selecting contributory enterprises
- Determining the extent of each contributory enterprise
- Deciding on a plan of management for each contributory enterprise

#### Recommendations

While this type of problem does not lend itself very well to the drawing of conclusions, the writer believes that there is sufficient evidence in the study to establish the following recommendations, which are based entirely on information and experience gained in organizing this course in farm management.

- It is well worth while for teachers of vocational agriculture to study and use the data of farm management surveys made in their local areas by the state college of agriculture, the state exten-

(Continued on page 138)

TABLE 9. GROUPING OF FACTORS REPORTED AS BEING MORE IMPORTANT IN HELPING 50 YOUNG MEN BECOME FARMERS

Factors	Number Reporting Each Factor	Number Ranking Each Factor:					
		1st	2nd	3rd	4th	5th	6th or lower
Like to farm.....	37	13	8	9	5	1	1
Opportunity at home.....	31	7	6	13	5		
Trained in farming.....	19	1	4	6	4	2	2
Depression.....	13	6	4	3			
Own boss.....	12	2	4	3			
Voc. Ag. training.....	10	3	1		1	4	1
Future in farming.....	8	1	2		2		3
Interest in livestock.....	8		4	1	2	1	
Influenced by parents.....	6	1	2		1	2	
Prefer working with nature.....	6	2	1	1	2		
Farm life satisfying.....	6		3		1	1	1
Like to manage a farm.....	5	1	2				2
Opportunity for credit.....	5	1		2	1		
Healthful life.....	4	2		1			
Father set example.....	4	1	1			2	
Care of mother.....	3	1		1			
Wife likes farm.....	3				1		2
Gifts-land-money.....	3		1				2
Inherited land.....	2	1					1
Hard work as laborer.....	2		2				



# Future Farmers of America

L. R. HUMPHERYS

## Eleven Years With the State Farmers of Texas

J. R. BERTRAND, President, Texas Gold Key Association, Lubbock, Texas

R. L. THURMAN, Teacher, Kaufman, Texas

A TOTAL of 552 boys have been awarded the State Farmer degree during 11 of the 12 years of Future Farmer work in Texas. Texas is known as the Lone Star State and from that name is derived the term Lone Star Farmer which is applied to the State Farmers of Texas. Of those holding Lone Star Farmer degrees, 40 have earned the American Farmer degree.

These boys represent the select group in Texas just as the State Farmers of the other states and territories represent a selected group from their state membership. Each of this number showed progress in establishment in farming and signified definite intention to remain in farming when the degree was awarded. One almost immediately asks whether all of this group have remained on the farm after having received their degrees. He would naturally expect that some do not, but what percentage do remain?

The Texas Gold Key Association, as an afterthought to the compilation of a directory of its members—the Lone Star Farmers—has attempted to answer questions similar to the above in a study of the occupational status of its members.

It is probably best that the writers of this article identify themselves. Each received the American Farmer award very early in the 1930's. One was given the recognition of being the "Master Vocational Agriculture Pupil in Texas" during his last year in high school. One entered the Agricultural and Mechanical College of Texas directly from high school and, upon graduation, taught vocational agriculture for one year and then took a Master of Science degree at Texas Technological College. He is again teaching vocational agriculture. The other finished high school and continued farming for five years, during one year of which he was enrolled in college. He then temporarily quit farming and for two years has been enrolled in the Division of Agriculture in Texas Technological College.

A total of 28 teachers have supervised the 27 departments in which the 40 American Farmer degrees have been awarded in Texas at the time the awards were made to the members of the departments. There are two teachers who are responsible for 20 percent of the American Farmers in Texas. There is an apparent positive correlation between the tendency of a teacher to produce a large number of boys who earn Lone Star and American Farmer degrees, and the tendency of these boys to enter agricultural occupations.

Of the 552 Lone Star Farmers, 145 received their degrees the latter part of July after this study had been completed. It may be taken for granted that

almost all of this latter group were still high-school students. Only the 407 Lone Star Farmers who had received their degrees before July, 1939, will be scrutinized in this article.

Consider for a moment the distribution of the Lone Star Farmers and the American Farmers from Texas by years, along with the growth in membership of the Texas Association of the F.F.A. and the increase in the number of departments of vocational agriculture in the high schools of Texas. In the accompanying table one may see the continual growth, beginning with the first year that Lone Star Farmer degrees were granted and including the present year.

Based on the occupational status of the Lone Star Farmers as of May 1, 1939, at which time there had been 407 degrees awarded in Texas, we found the following distribution: 74 individuals, or 18.2 percent of the total, were still in high school; 62, or 15.2 percent, were in college, had designated and were pursuing some field of agriculture as their major; 42, or 10.3 percent, were in college, but were in fields other than agriculture; 17, or 4.2 percent, were in junior college, but no major study had been designated; six, or 1.5 percent, were in agricultural professions other than teaching; six were teaching vocational agriculture; 128, or 31.5 percent, were actually engaged in farming and ranching, either for themselves or in partnership with their fathers or mothers; six were laborers in farming or in fields that may be considered as closely related to agriculture; 47, or 11.5 percent, were engaged in non-agricultural work outside the schoolroom; 16, or 3.9 percent, could not be located; and three are deceased.

One may see that on May 1, 1939, 208, or approximately 51 percent, were actually engaged in agricultural pursuits. Although this might be considered quite representative for all farm youth, it seems to be quite low when one considers the highly select character of the

group under consideration. One should take cognizance of the fact that this total includes all of those individuals connected in any way with agriculture; i. e., those who were studying agriculture in college, and those who were laborers in farming and related fields.

There are three smaller groups of Lone Star Farmers who are analyzed further. Each year since 1933, an individual has been chosen as the Star Lone Star Farmer of Texas for that current year. For each of three years previous to that, a "Master Vocational Agriculture Pupil of Texas" was chosen. Since the time that this study was made, another Star Lone Star Farmer has been selected, but previous to that time, six Star Lone Star Farmers and three Master Vocational Agriculture Pupils of Texas had been chosen. Of this number, one was in high school, three were pursuing agricultural courses in college, one was in a junior college with no major designated, one was farming, two were in non-agricultural work outside the classroom, and the whereabouts of the other were unknown. When examining these figures, one should remember that the individuals with whom they deal have been the "choicest of the choice" each year since the beginning of F.F.A. work in Texas.

Of those holding the Lone Star Farmer degree, 40 have earned the American Farmer degree. What was their occupational status when this study was made? Two were still in school; 13 were pursuing some agricultural major in college; three were taking non-agricultural majors in college; one was in a junior college; one was teaching vocational agriculture; 12 were farming or ranching; two were laborers in farming and related fields; and five were in definitely non-agricultural work outside the schoolroom.

One individual case is called to the attention of the reader. This young man was one of the more outstanding members of the F.F.A. in Texas in so far as his record as a Future Farmer is concerned. He is now engaged in an occupation definitely unrelated to farming. He did not attend college and the embarking upon his present occupation was not caused by financial reverses. During the time that he was actively engaged in F.F.A. work, he was successively Lone Star Farmer, President of the Texas

### GROWTH OF VOCATIONAL AGRICULTURE AND THE F. F. A. IN TEXAS

Year	V. A. Depts.	F. F. A. Membership	Number of L. S. F. Degrees Awarded	Number of A. F. Degrees Awarded
1928-29	201	2,640	4	.
1929-30	225	1,410	9	2
1930-31	228	3,980	10	3
1931-32	236	4,591	12	2
1932-33	252	4,272	25	2
1933-34	279	5,556	17	2
1934-35	332	8,860	34	6
1935-36	384	12,032	61	5
1936-37	450	16,600	112	6
1937-38	528	20,435	117	12
1938-39	553	23,061	151	..

THE AGRICULTURAL EDUCATION MAGAZINE January, 1940

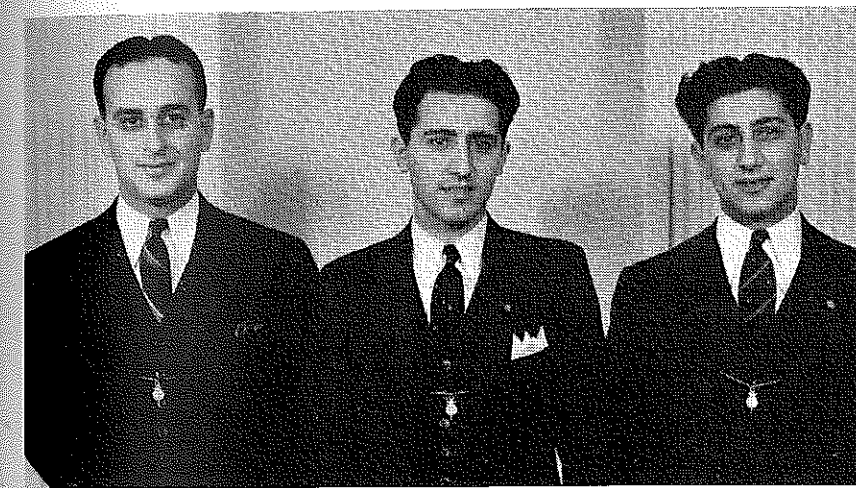
Association of the F.F.A., Master Vocational Agriculture Pupil of Texas, and American Farmer. No criticism is intended for either this individual or his instructor when this rather interesting case is pointed out, but is it barely possible that our intended program is falling just a little bit short somewhere?

WHERE can the blame be laid for such a large number of State Farmers severing their connections with agriculture? The term "State Farmer" is used in the belief that a similar condition may exist with reference to the occupational status of State Farmers in other states as it does in Texas. Certainly one could not say that the national and state programs or those who administer them are at fault. Is it logical to infer that the weakness lies in the local set-up? In far too many cases, is the teacher just a little hazy about the qualities that characterize good material for a State Farmer applicant? Is he apparently not well enough acquainted with his boys to know their true attitude toward agriculture in general and farming in particular? Is it possible that very often he may instill in his boys a judging-contest spirit

and enter all of them in competition of the sweepstakes award with the result that the State Farmer key is sometimes thought of as only a rather pretty watch fob rather than its having the significance and meaning for which it is designed?

On the other hand, should anyone be blamed for this change of occupational status of the State Farmers and the American Farmers? Is it possible that this migration from the farm may be due to the folk-shift that has been going on for some time? Replacement of leaders in agriculture and in other industry has always exacted a heavy toll on farm life, very often robbing it of what sometimes seems to be its very life's blood in the form of the outstanding boys and girls. Can it be that this demand is the key to the problem that has been pointed out? If so, what can be done about it?

We are proud of our State Farmer and American Farmer degrees. We are eagerly anticipating the day when everyone connected with the program in vocational agriculture will more nearly recognize the characteristics of a true State Farmer.



Left to right: Phillip, Alex, and Joseph Alampi

### Three Brothers—American Farmers

O. E. KISER\*, Teacher Education, New Brunswick, N. J.

THREE brothers have set an enviable record early in the history of the Future Farmers of America. They are Phillip, Alex, and Joseph Alampi, Williamstown, New Jersey, who were awarded the American Farmer degree by the national organization in 1929, 1933, and 1939, respectively.

They are sons of Mr. and Mrs. Anthony Alampi. Mr. Alampi moved his family from the city to a small farm in this rural community in Gloucester County where he practiced part-time farming along with his trade as a hat-maker in Philadelphia. In a few years he decided to devote his entire time to farming, and to raise his family of four children—three sons and a daughter, Catherine—in a more wholesome atmosphere.

Mr. and Mrs. Alampi knew little about farming. They thought their boys could render valuable assistance if they studied vocational agriculture in Glass-

boro High School. The boys studied eagerly in school, and worked arduously at home. There was little time for play.

Phillip, the oldest brother, was a zealous student in high school, and was anxious to carry a complete supervised farm practice program. When the first applications for the American Farmer Degree were called for in 1929, he was prepared and received his award. He entered Rutgers University in 1930, where he won additional honors by being elected to membership in Alpha Zeta and Phi Beta Kappa fraternities. After being graduated from college, he was employed as a special investigator of poultry racketeering in New York City. Since 1935 he has been successfully teaching vocational agriculture in the high school at Woodstown, New Jersey. He is now president of the New Jersey State Agricultural Teachers' Association.

Alex, by virtue of his class work, extra-curricular activities, and supervised farm practice program, was awarded the American Farmer Degree in 1933. His leadership ability was recognized. He was reporter and vice-president of the Glassboro Chapter, president of the New Jersey State F.F.A., and vice-

president of the farm for several years, doing local rural news reporting as an avocation. He now has a very good position in a local industrial plant.

Joseph followed in the footsteps of his brothers in school and F.F.A. activities. By the time he was graduated from high school in 1937, he saw the possibilities of a greater farm income thru expansion of the poultry enterprise. He is now utilizing 25 acres in a successful, up-to-date poultry business where he is breeding and hatching quality stock. He, with the support of his brothers, has put the farm on a more sound basis and has assured his parents that their sacrifices have not been in vain. Joseph was awarded his American Farmer Degree on October 17, 1939.

All of the brothers have been active in 4-H, Grange, and other community activities.

\* Professor Kiser was formerly teacher of agriculture at Williamstown, New Jersey, the home of the three brothers.

### Future Farmers in the Movies

FUTURE Farmers in Georgia, as well as those in other parts of the nation, will be interested to know that a motion picture film of the novel, *The Green Hand*, by Paul W. Chapman, Dean of the Agricultural College in Athens, is in the process of being made. The actual filming of the picture has been completed. Much of the laboratory work is yet to be done.

The film is being produced by the Agricultural Foundation of Sears, Roebuck and Company. It will be shown in every county in the South, and possibly in many other sections of the nation.

The filming has been done in Georgia—in Athens and Savannah. The cast includes people from all parts of Georgia. Alpha Fowler, Jr., of Douglasville, immediate past president of the Georgia Association of F.F.A., plays the leading role of Fred Dale.

Other members of the cast include M. D. Mobley, as Walter Langford, the vocational agricultural teacher in the story; Dean Paul Chapman, as Dr. Anderson; Tommy Tucker, as "Red" Watterson; Ralph Shumake, Roopville, as Willard Henderson; Betty Johnson, Savannah, as Sally Mae Martin; Dr. M. P. Jarnagin, of the College of Agriculture, as Mr. Dominick; G. P. Donaldson, as Jack Lindsey, the defense attorney; Dr. Shinn, Dean of the Law School, University of Georgia, as the prosecuting attorney, and C. H. Bishop, manager of Sears, Roebuck Farmers Market, as Judge Cason.

There are many others, too numerous to mention, who took part in the making of the film. In all, between 600 and 800 people were included in the various scenes.

A gala occasion is being planned for the première, which is to take place in Athens around the first of November. J. A. Linke, national F. F. A. adviser; W. A. Ross, national executive secretary; D. M. Clements, Federal Agent for Agricultural Education; and many others of national prominence have been invited to be present at the first showing.

THE AGRICULTURAL EDUCATION MAGAZINE January, 1940



filming and showing of "The Green Hand" thruout the South will be a great boon for the F. F. A. Some authorities have stated that as a result of showing the film thruout the South, and possibly the nation, thousands of people will learn of the objectives of the F. F. A. who heretofore have not had an opportunity to know much about the organization.

The film has been made for the purpose of encouraging farm youth and to further promote the F. F. A. and vocational education in agriculture.—The Georgia GAFFA, Oct., 1939.

## Farm Management

(Continued from page 135)

sion forces, the state department of agriculture, and other reliable agencies.

2. Since the surveys of the agencies mentioned usually cover an area larger than the high-school area, it is also advisable for the teacher of agriculture to make farm management surveys, so as to get a true picture of his area. These surveys are especially important if the types of agriculture typical to the county are not also typical of the school area.

3. Blanks for securing farm management data should be carefully prepared by the teacher to fit the conditions of his area; and it is usually advisable to have the blanks criticized by the department or departments that head up the farm management work of the state.

4. In organizing a check list for farm management content, care should be used in the selection of the books, publications, and courses of study from which such content is to be taken. One should always keep in mind the types of farming and other managerial factors peculiar to the area.

5. In selecting the jury, the criteria of willingness to serve, and ability or expertness in the particular farm business to be evaluated, are all-important.

1. Mr. Dickerson is a former teacher of vocational agriculture in the Sussex High School, Sussex, N. J. He is now at the Pennsylvania State College as a specialist in part-time and evening-course instruction.
2. Vocational Education in Agriculture 1917-1927, Federal Board for Vocational Education, Bul. No. 154, 1928, p. 7.
3. "Farm Profits and Factors Influencing Farm Profits on 98 Dairy Farms in Sussex County," N. J. Agr. Expt. Sta., Bul. 542, Waller, A. G., and Rauchenstein, E.

## Finance

(Continued from page 129)

### Questions

1. It will be seen that the interest rate varied from four to eight percent. Is it necessary that rates be higher than five or six percent, in view of present-day credit facilities?

2. Are the F. F. A. chapters and students to whom bank loans are made getting superior training in farm-financing?

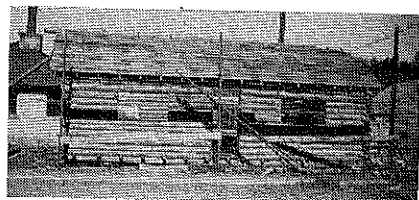
3. Is it desirable for a school to make use of different sources of loans—local banks, Production Credit Association, and others—in order to give more extensive training in the problems and procedures of farm-financing?

4. How can the boy secure the greatest possible training value from financial transactions with his parents?

DON A. PETERSON,  
Moscow, Idaho

"A HOME of their own" is the ultimate goal of the members of the F. F. A. chapter at Sugar-Salem, Idaho. A log cabin 28 by 30 feet in the Island Park area near Yellowstone National Park was purchased with chapter funds. It was necessary to sell this cabin when the Federal government purchased the grounds for a dam site. The chapter made a bid on the structure which was accepted. Ambitious chapter members under the direction of the chapter adviser planned the dismantling of the cabin and the moving of the logs to the high-school grounds, to be re-assembled as a chapter house.

Twenty-one boys made the overnight camping trip to the cabin site, dismantled the logs, and hauled them to Sugar City. Work immediately started on the reconstruction program that eventually will mean for them the first chapter house in the state of Idaho. A large part of the spare time of chapter members during the past few months has been spent on the house.



Chapter house under construction

The sheeting on the roof and the floor have been laid and sufficient rock brought to the grounds with which to make the fireplace. The building is near the school and will have a rustic finish. Chapter members are enthusiastic about this project and are looking forward to having a home of their own that can be used for chapter meetings and social affairs.

## The Unknown Teacher

FAMOUS educators plan new systems of pedagogy, but it is the unknown teacher who delivers and guides the young. He lives in obscurity and contends with hardship. For him no trumpets blare, no chariots wait, no golden decorations are decreed. He keeps the watch along the borders of darkness and makes the attack on the trenches of ignorance and folly. Patient in his daily duty, he strives to conquer the evil powers which are the enemies of youth. He awakens sleeping spirits. He quickens the indolent, encourages the eager, and steadies the unstable. He communicates his own joy in learning and shares with boys and girls the best treasures of his mind. He lights many candles which, in later years, will shine back to cheer him. This is his reward. Knowledge may be gained from books; but the love of knowledge is transmitted only by personal contact.—Henry Van Dyke, The Journal of the National Education Association.

FORWARD F.F.A., by W. A. Ross, 141 pp., illustrated, published by the French-Bray Printing Company, Baltimore, Maryland, paper cover 50c, cardboard binding, \$1.00. Administrators and teachers in the field of general education will be interested in this booklet because of its clear portrayal of the meaning and place of the F. F. A. in the national program of education. Agricultural educators and leaders will find this publication both interesting and valuable because of its direct attention to a youth group in their field. F.F.A. officers and members should find this volume indispensable. A historical treatment of the F.F.A. organization is given in the introductory chapter. Eleven chapters following are devoted to the principles upon which the F.F.A. is founded, and are designed to assist the farm youth in finding and developing himself. The following excerpts from chapters treating important principles upon which the F.F.A. is built are indicative of the type of material the author presents in a challenging and interesting manner.

*Hidden Power*—"Only in the human being do we find almost unlimited supply of hidden power, because there is power of mind in addition to physical power."

*Leadership*—"Those who would become leaders must, first of all, be fired with a sincere desire; put forth steady conscientious effort; deny themselves when necessary; plan ahead; and be able to follow a definite course of action."

*Co-operation*—"You have to work to be a good co-operator. We may realize that it is convenient or profitable to do certain things together but the co-operative undertakings that seem to count the most are the result of the efforts of those who just naturally proceed in that fashion."

*Thrift*—"The thrifty person usually has many desired possessions; he not only knows how to acquire them but uses them wisely."

*Character*—"Few people fail to realize that the ability to get along with other folks stands well up at the top of any list of success factors in the world of today. But how important it is to learn to get along well with yourself."

*Recreation*—"Wise people establish standards, choose their recreation carefully, and judge its worth with a critical eye."

*Scholarship*—"Good scholarship stands for successful effort on something worth while."

*Citizenship*—"Good citizenship is a result of growth and development in body, mind, and spirit extending from the earliest days of home training on to the end of life."

*Service*—"The world will normally have place somewhere for stout-hearted individuals of purpose who consistently put service ahead of self."

Forward F. F. A. will materially aid vocational agriculture teachers in acquainting patrons as well as potential F.F.A. members with the purpose and place of this splendid farm youth organization, and will prove of especial value to Future Farmer members in learning to know and make the best use of their organization.—A. P. D.

# VOCATIONAL AGRICULTURE EDUCATION DIRECTORY\*

## OFFICE OF EDUCATION, WASHINGTON, D. C.

John W. Studebaker—U. S. Commissioner of Education

J. C. Wright—Ass't Commissioner for Vocational Education — J. A. Linke—Chief, Agricultural Education

**Regional Agents** C. H. Lane—North Atlantic  
D. M. Clements—Southern

J. H. Pearson—North Central  
W. T. Spanton—Pacific

**Specialists** F. W. Lathrop—Research  
H. B. Swanson—Teacher-Training  
R. W. Gregory—Part-Time and Evening

W. A. Ross—Subject Matter  
W. N. Elam—Special Groups  
W. P. Beard—Ed. Writer

## STATE SUPERVISORS—TEACHER-TRAINERS\*

s—supervisor t—teacher-trainer cs—colored supervisor ct—colored teacher-trainer

<b>ALABAMA</b> s—R. E. Cammack, Montgomery t—S. L. Chesnut, Auburn ct—E. A. Grant, Tuskegee	<b>LOUISIANA</b> s—S. M. Jackson, Baton Rouge t—Roy J. Davenport, University ct—Cornelius King, Scotlandville	<b>OKLAHOMA</b> s—J. B. Perky, Stillwater t—D. C. McIntosh, Stillwater cs—t—D. C. Jones, Langston
<b>ARIZONA</b> s—A. G. Snyder, Phoenix t—R. W. Cline, Tucson	<b>MAINE</b> s—t—H. S. Hill, Orono	<b>OREGON</b> s—E. R. Cooley, Salem t—H. H. Gibson, Corvallis
<b>ARKANSAS</b> s—H. L. Cochran, Little Rock t—Keith L. Holloway, Fayetteville ct—C. S. Woodward, Pine Bluff	<b>MARYLAND</b> s—t—H. F. Cotterman, College Park ct—J. A. Oliver, Princess Anne	<b>PENNSYLVANIA</b> s—H. C. Fetterolf, Harrisburg t—H. S. Brunner, State College
<b>CALIFORNIA</b> s—J. A. McPhee, San Luis Obispo t—S. S. Sutherland, Davis t—W. E. Court, San Luis Obispo	<b>MASSACHUSETTS</b> s—John G. Glavin, Boston t—F. E. Heald, Amherst	<b>PUERTO RICO</b> s—Nicholas Mendez, San Juan t—Ernesto Vazquez, San Juan
<b>COLORADO</b> s—L. R. Davies, Denver t—G. A. Schmidt, Fort Collins	<b>MICHIGAN</b> s—Harry Nesman, Lansing t—H. M. Byram, East Lansing	<b>RHODE ISLAND</b> s—G. H. Baldwin, Providence t—E. L. Austin, Providence
<b>CONNECTICUT</b> s—R. L. Hahn, Hartford t—C. B. Gentry, Storrs	<b>MINNESOTA</b> s—Leo Knuti, St. Paul t—A. M. Field, St. Paul	<b>SOUTH CAROLINA</b> s—Verd Peterson, Columbia t—W. G. Crandall, Clemson College ct—J. P. Burgess, Orangeburg (c)
<b>DELAWARE</b> s—W. L. Mowlds, Dover t—R. W. Heim, Newark	<b>MISSISSIPPI</b> s—A. P. Fetherree, Jackson t—V. G. Martin, State College ct—J. H. Dean, Aleorn	<b>SOUTH DAKOTA</b> s—H. E. Urton, Pierre t—R. R. Bentley, Brookings
<b>FLORIDA</b> s—J. F. Williams, Jr., Tallahassee t—E. W. Garris, Gainesville ct—L. A. Marshall, Tallahassee	<b>MISSOURI</b> s—J. L. Perrin, Jefferson City t—Sherman Dickinson, Columbia	<b>TENNESSEE</b> s—G. E. Freeman, Nashville t—N. B. Fitzgerald, Knoxville
<b>GEORGIA</b> s—L. M. Sheffer, Athens t—J. T. Wheeler, Athens ct—F. M. Staley, Industrial College	<b>MONTANA</b> s—A. W. Johnson, Helena t—R. H. Palmer, Bozeman	<b>TEXAS</b> s—J. B. Rutland, Austin t—Henry Ross, College Station t—J. L. Moses, Huntsville t—T. A. White, Kingsville t—Ray Chappelle, Lubbock
<b>HAWAII</b> s—W. W. Beers, Honolulu t—F. E. Armstrong, Honolulu	<b>NEBRASKA</b> s—J. D. Clements, Lincoln t—H. E. Bradford, Lincoln	<b>UTAH</b> s—Mark Nichols, Salt Lake City t—L. R. Humpherys, Logan
<b>IDAHO</b> s—Wm. Kerr, Boise t—H. E. Lattig, Moscow	<b>NEVADA</b> s—R. B. Jeppson, Carson City t—W. C. Higgins, Reno	<b>VERMONT</b> s—t—Kenneth Sheldon, Burlington
<b>ILLINOIS</b> s—J. E. Hill, Springfield t—A. W. Nolan, Urbana	<b>NEW HAMPSHIRE</b> s—t—E. H. Little, Concord	<b>VIRGINIA</b> s—W. S. Newman, Richmond t—E. C. Magill, Blacksburg ct—G. W. Owens, Ettrick
<b>INDIANA</b> s—Z. M. Smith, Lafayette t—B. C. Lawson, Lafayette	<b>NEW JERSEY</b> s—t—H. O. Sampson, New Brunswick	<b>WASHINGTON</b> s—J. A. Guiteau, Olympia t—Everett Webb, Pullman
<b>IOWA</b> s—H. T. Hall, Des Moines t—J. B. McClelland, Ames	<b>NEW MEXICO</b> s—Frank Wimberly, State College t—H. M. Gardner, State College	<b>WEST VIRGINIA</b> s—John M. Lowe, Charleston t—D. W. Parsons, Morgantown
<b>KANSAS</b> s—L. B. Pollom, Topeka t—C. V. Williams, Manhattan	<b>NEW YORK</b> s—A. K. Getman, Albany t—R. M. Stewart, Ithaca	<b>WISCONSIN</b> s—L. M. Samaan, Madison t—J. A. James, Madison t—F. T. Ulrich, Platteville t—J. M. May, River Falls
<b>KENTUCKY</b> s—R. H. Woods, Frankfort t—Cursie Hammonds, Lexington ct—E. N. Morris, Frankfort	<b>NORTH CAROLINA</b> s—Roy H. Thomas, Raleigh t—L. E. Cook, Raleigh ct—S. B. Simmons, Greensboro	<b>WYOMING</b> s—Sam Hitchcock, Cheyenne t—L. S. Crawford, Laramie
	<b>NORTH DAKOTA</b> s—t—E. L. De Alton, Fargo	
	<b>OHIO</b> s—R. A. Howard, Columbus t—W. F. Stewart, Columbus	

\*See complete directory of state directors; state and assistant state supervisors; regional or district supervisors; colored supervisors; teacher-trainers; itinerant teacher-trainers; research workers in teacher-training; critic or practice school teachers; and colored teacher-trainers, in the December, 1939, issue (separate insert).