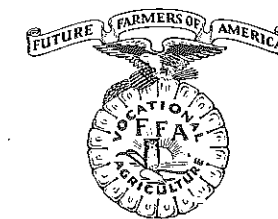


Every one who thinks, knows that the only way in which any problem was ever solved was by constant and persistent effort.—Theodore Roosevelt



The Agricultural Education Magazine

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Editorial Comment

Active Campaign Begun for Keeping Farm Records

Z. R. PETTET, Chief Statistician for Agriculture,
Bureau of the Census, Department of Commerce, Washington, D. C.

AGENCIES of three Government departments have joined in an informal co-operative farm-record project which has developed from the so-called Trial Census which the Census made last winter with the help of the Division of Crop and Livestock Estimates, of the Department of Agriculture. Briefly, that undertaking was a trial enumeration with a farm schedule drawn up by the Inter-Departmental Committee of the Department of Agriculture and the Bureau of the Census. One of the most important points developed by the State statisticians, who were the enumerators, was the almost total lack of farm records which made it impossible to secure certain farm production items readily and accurately.

County Fair Posters Prepared

To help to correct this situation, in the Census exhibit at county fairs this year, a poster carrying a display line, "Keep Records for the Calendar Year 1939," was used. Several county agents, seeing this poster and announcement, recognized how it would help them in their campaign to keep accurate farm records and asked the Census to supply them with additional material and to discuss the idea with the Extension Service in Washington. Out of the conferences held in accordance with these suggestions, an informal co-operative project was initiated, the Extension Service agreeing to have the county agents place the posters in their offices with other advertising material, to promote farm bookkeeping.

Crop Reporters Join

The Division of Crop and Livestock Estimates immediately saw the value of this project and at once joined in the good work. It was further suggested that all governmental agencies interested in agriculture and needing agricultural records be invited to take part.

Office of Education Assists

Vocational teachers, county superintendents of schools, Future Farmers of America, schools, colleges, farm organizations and libraries are being invited to display posters and aid in making the project successful.

Accurate Census in 1940 the Aim

While the broader aim of this project is to get farmers to keep better farm records for their own information and for the use of all interested in agricultural statistics, the immediate objective is to assist the Census in obtaining more complete and accurate replies to the questions of the Census enumerators in 1940. Information covering such items as milk and eggs, farm expenditures, inventories, and sales is always difficult to secure and requires a large amount of the enumerators' time. This adds materially to the duration and cost of the Census.

Trial Schedules Secured Upon Request

The preliminary schedule, drawn up for testing in advance and used experimentally in field work, is available for general distribution. In all probability this schedule shows the major items which will appear in 1940, but the items included may be changed by the Census Advisory Committee.

1,000 County School Superintendents Co-operate

In connection with this campaign more than 1,000 county school superintendents have requested advertising leaflets,

plete census in 1940 everyone is invited to co-operate. It is suggested that all interested in farm bookkeeping, basic agricultural and economic statistics, and other farm problems, write for copies of the Trial Schedule, the Census posters and announcements of the 1940 Census of Agriculture. Address *Division 61-A*, Bureau of the Census, Department of Commerce, Washington, D. C.

Editor's Note—Teachers of agriculture should take advantage of this offer. You should also give as much help as possible in the procuring of accurate census data, which will later provide excellent reference materials for teaching.

Pioneering in Agricultural Education

FOR THOSE who aspire to rise above the average, whether in agricultural education or in other lines of endeavor, the writer ventures to suggest two qualities as fundamental. One of these is *vision*, and the other is *initiative*.

By vision it is not meant that a person should be visionary in the impractical sense, nor that he should have his head so far in the stratosphere that contacts with reality are cloudy and misty. It might be of value, however, if every teacher at times would let his thoughts get far enough from the daily routine to gain a perspective and secure a fresh view of the direction in which things are moving and should move. It is far from irrelevant to call to mind the words of a hardy pioneer who in his declining years said, "Let me go back to the mountains. A man can see farther there."

Vision may be interpreted as the ability to see beyond boundaries established to date. For the individual teacher this involves the careful evaluation of ideas new to him, in order that he may detect their possibilities in specific situations to which they have been poorly applied or not applied at all. Vision is needed to formulate ideals for high-grade living and to sense the changes in individual behavior that are needed if "people are to do better the desirable things they will do anyway"—to borrow Briggs's terminology. Vision is needed to interpret the "good life" in relation to rural America; to develop ideals and standards of production, distribution, and right living; and to perceive possibilities in developing personalities.

Vision will help us to see things in relationship to each other, and to sense where we can go; but initiative also is needed if we are to move in the desired directions. Initiative has sociability, adaptability, resourcefulness, courage, versatility, enthusiasm, and the "will to do," as its handmaids. Thorndike has said that initiative is "a readiness and ability to move ahead and take promising risks." Whereas vision represents pioneering in *thought*, initiative represents pioneering in *action*.

Some individuals who venture in the directions depicted may reach vantage points from which they perceive frontiers beyond those already established. The possibility of experiencing such a thrill, remote as it may be, is a motivating force for those who seek to pioneer in agricultural education.—G. P. Deyoe, Michigan State College.

Whither Agricultural Education Booklet

THE supply of this booklet has been reduced to 650 copies. No reprinting of it is contemplated. Twenty-seven states have co-operated in its distribution. We believe that the remaining supply will soon be exhausted. Teachers of agriculture in those states which did not purchase a supply may want a copy of this booklet. Single copies may be procured from the editor at fifteen cents each, postpaid. Stamps are acceptable. Orders for twenty or more copies to one address should be sent to L. L. Anderson, Meredith Publishing Company, Des Moines, Iowa. In lots of 20 copies, the price is

A. K. GETMAN

Professional

R. W. GREGORY

Contributions of Leading Americans to Agriculture—William Arnon Henry—1850-1932

LOUIS M. SASMAN, Assistant State Director and Supervisor of Vocational Agriculture,
Madison, Wisconsin



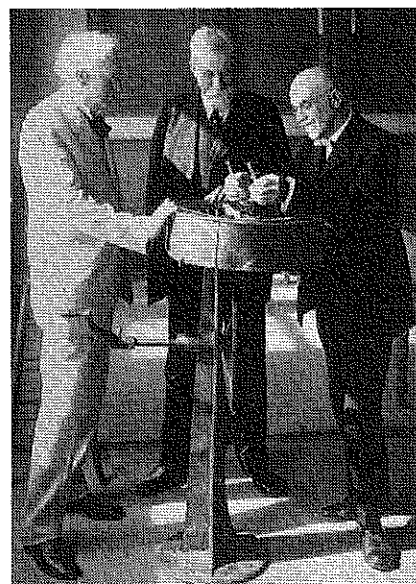
L. M. Sasman

WILLIAM ARNON HENRY is best known to present-day workers in vocational agricultural education as the author of *Feeds and Feeding*. This book, the first edition of which was published in 1898 with 670 pages and which has since been continually revised up to the 20th edition, recently prepared by F. B. Morrison of Cornell University, is probably the most widely used agricultural book in the world. Some 10 or 12 years ago, one of the national farm papers attempted to determine what books had proved most useful to American farmers. Inquiries were sent to more than 1,000 farm people in all parts of the country, and *Feeds and Feeding* received more than three times as many votes as any other book. Today this book is still the standard reference on its subject and the unabridged edition, as well as the abridged edition intended for high-school students of agriculture, will be found on the shelves of thousands of departments of vocational agriculture in the nation. In addition, it has been translated into foreign languages and is widely used throughout the world. The work leading up to the writing of *Feeds and Feeding* began about 1880. Today in the agricultural library of the Wisconsin College of Agriculture may be found a little leaflet on "Systematic Feeding in the Dairy" by W. A. Henry, on which is written in Dean Henry's writing these notes: "This sheet was prepared fall of 1880 for use in farmers' meetings where I was lecturing. This was the first presentation to the farmers of Wisconsin of a standard ration."

However, the effect of *Feeds and Feeding*, important as it has been to the farmers and stockmen of the nation, is really only a minor part of the tremendous influence which W. A. Henry will continue, thruout the generations, to have on American agriculture.

In 1880 the regents of the University of Wisconsin were searching for a man to develop agricultural teaching at the university. As Judge E. W. Keyes, president of the board of regents, said, "We wanted a young man who possessed the attributes of success; who would not only do his duty in his special calling,

to the board of regents in the new movement to revolutionize this branch of the university and make it meet the demands of the advanced farmers of the state." Finally the president of the university reported that he had found at Cornell University a man who he thought might be satisfactory. Judge Keyes said: "I found before me a young man tall and slender, tho in appearance rugged, with bright eyes and rosy cheeks. His first appearance was favorable. . . . It was clear to me that he was ambitious and that he possessed a vision of the possibilities of the position. He said he was willing to undertake the job and do his part in the great work."



Left to right: Dean Henry, President Chamberlain, and Professor Babcock

and no students. Twenty-seven years later when he left the institution, the College of Agriculture was housed in six buildings; its annual operating budget was \$200,000; students in various courses were more than 600; and there were 43 members of its faculty engaged in special fields of agriculture and research. The biggest job Professor Henry had to do "was to sell the farmers of his adopted state the idea that they had a 'place in the sun' and that they owed it not only to themselves but to the state itself to occupy and fill this space. And it was no easy matter to convince them of the opportunity that was theirs. Up and down the state went Henry, holding meetings with groups of farmers, pointing out that the way out of the long, long depression following the Civil War was to better their agricultural practices, to stop the senseless waste of soil-robbing thru the accursed system of single-crop farming, and to substitute, therefore, diversified agriculture—to leave wheat-growing for the virgin lands of the newly opened west and in place to build up animal industry." (W. A. Henry, *Builder*—H. L. Russell, *The Wisconsin Country Magazine*, January, 1933.)

In 1881, Professor Henry had a silo built at the experimental farm at the same time that Professor J. P. Roberts, under whom Henry had worked, was having one built at the New York State College of Agriculture at Cornell. These two silos were the first ones used for experimental purposes in America. In 1883 he secured the services of John Gould of Ohio to do farmers' institute work on silage. The work carried on at that time resulted in the popularization of the silo and a leadership of Wisconsin in the use of silage which has continued up to the present time.

In spite of Professor Henry's activities, however, the enrollment in the department of agriculture at the university failed to develop satisfactorily. Then one of the regents got the idea of developing a short course which would train farm boys. Consequently, in 1885, the first short course in agriculture in America was organized under Professor Henry's direction, and enrolled 19 students. The idea of a short course, not offering a degree, was laughed at by members of other departments at the university; and even others in the agricultural department did not believe that it would be a success. However, it developed to become certainly one of the most powerful forces for the training of

and no students. Twenty-seven years later when he left the institution, the College of Agriculture was housed in six buildings; its annual operating budget was \$200,000; students in various courses were more than 600; and there were 43 members of its faculty engaged in special fields of agriculture and research. The biggest job Professor Henry had to do "was to sell the farmers of his adopted state the idea that they had a 'place in the sun' and that they owed it not only to themselves but to the state itself to occupy and fill this space. And it was no easy matter to convince them of the opportunity that was theirs. Up and down the state went Henry, holding meetings with groups of farmers, pointing out that the way out of the long, long depression following the Civil War was to better their agricultural practices, to stop the senseless waste of soil-robbing thru the accursed system of single-crop farming, and to substitute, therefore, diversified agriculture—to leave wheat-growing for the virgin lands of the newly opened west and in place to build up animal industry." (W. A. Henry, *Builder*—H. L. Russell, *The Wisconsin Country Magazine*, January, 1933.)

These were the years of his greatest success and national recognition. In 1902, Dean Henry was chosen special lecturer on agriculture and animal nutrition at the summer school of the University of California; in 1904, the University of California conferred upon him the honorary degree of Doctor of Agriculture and the University of Vermont conferred the degree of Doctor of Science. That year the farmers' course was established at the Wisconsin College of Agriculture, with an attendance of 175 in 1907.

so highly successful that the idea spread to practically every other state in the union. Today thousands of successful farmers thruout the nation look back to the inspiration they received at such short courses.

The passage of the Hatch Act by Congress in 1887 established the agricultural experiment stations and Professor Henry was naturally appointed director of the Wisconsin Experiment Station. The next year he took another one of the epoch-making steps of his career by going to New York and persuading Doctor Stephen Moulton Babcock to come to Wisconsin to fill the position left vacant by the resignation of Doctor Henry P. Armsby, who had become director of the Pennsylvania Agricultural Experiment Station.

At this time the dairymen of Wisconsin were clamoring for a more equitable method of determining the value of milk. Henry, in attendance at dairy meetings in Wisconsin and Illinois, was besieged by requests for some means of determining the fat content of milk. Babcock began working on the problem with the patience and thoroughness for which he was noted. This resulted in the discovery, in 1890, of the Babcock test which revolutionized the dairy industry. In that year, the first dairy course in America was started at Wisconsin, with an enrollment of two students; and has continued ever since as a strong influence in the training of cheese- and butter-makers in the state.

The Wisconsin College of Agriculture was organized in 1901 and Professor Henry became Dean Henry. The same year was published his first national contribution on "The Feeding of Cattle," which appeared as Part II of United States Secretary of Agriculture Rusk's report on Diseases of Cattle and Cattle Feeding. He continued the development of the ability which was later to lead Edward N. Wentworth to say in "The Portrait Gallery of the Saddle and Siroin Club": "Dean Henry gathered under his leadership the greatest agricultural faculty assembled by the early institutions. Practically every one of them became a national leader in his subject—Babcock in dairy chemistry and physics, Russell in bacteriology, King in soils, Craig in animal husbandry, Waugh in horticulture, Farrington in dairy manufactures, Hart and McCollum in nutrition, Moore in agronomy, Jones in plant diseases, and Taylor in agricultural economics. His greatest pride lay in this faculty, and to it attributed the success he enjoyed." Because of his outstanding ability in the selection of men and the success which he had in building up the Wisconsin College of Agriculture, he finally came to be known as the Dean of Deans."

College granted him the degree of Doctor of Science.

A little sidelight on the type and extent of his influence is found in A. H. Sanders's book *At the Sign of the Stock Yards Inn*. In describing the beginning of the idea of a Stock Yards Inn at the Union Stock Yards in Chicago, Mr. Sanders said, "It all happened one afternoon in June, 1903. Mr. Leonard, Mr. Ogilvie, and the writer of these rambling notes were passengers aboard a Chicago and Northwestern train bound for the most beautiful of our inland capitals—the city of Madison, Wisconsin. To be more explicit, we were on our way to pay a visit to the agriculture college of the great university which, from its semi-Venetian throne of beauty, dominates a panorama of surpassing loveliness. Dean Henry was to be our host." From all parts of the country men were coming to the Wisconsin College of Agriculture to consult Dean Henry.

Dean Henry was an enthusiastic, untiring worker, but his health finally failed to stand up under the strain and in 1907, after 27 years of service at the university, he asked to be relieved of his duties as Dean. At the time and later, expressions of appreciation and affection poured in from all parts of the nation. T. L. Haecker, of the University of Minnesota, said: "His chief characteristics are his devotion to the interests of the tillers of the soil, his advanced ideas, his appreciation of all branches of agriculture, his unbounded enthusiasm, and the remarkable energy with which he prosecuted the work of building up the agricultural department of the University of Wisconsin." (*Farm Stock and Home*, April 1, 1907)

Of special interest to those interested in agricultural education was the editorial comment in the *Breeders' Gazette*, February 27, 1907: "The work of Professor Henry has proved epoch-making in the history of agricultural education. . . . Dean Henry's name is indissolubly linked with the popularization of agricultural education to a greater degree than that of any other man."

Dean Henry's philosophy of the place and value of education to the farmer was clearly given in the following excerpt of an address delivered at the 43rd University Convocation at Albany, New York, June 30, 1905:

"At Washington we have that great central force for agricultural advancement, our national Department of Agriculture. In your own state you have the department of agriculture with its central offices in this capital. As powerful factors you can point to Cornell and Geneva. Great as are all these forces for good at this time, let me say to you, as one who has seen these things come on from the most insignificant beginnings, that their growth and power have only begun. Where you are spending a dollar in the support of these institutions, you will soon be giving a score; and where you are now receiving one measure of good therefrom, you will soon be receiving a thousand. Now you have an agricultural school at Cornell. Soon it will be vastly greater than at present, and in addition there will be lower agricultural schools of great power and influence scattered over the state. Your farmers' institute efforts will be strengthened and take on forms of usefulness

After speaking of improved methods of production resulting from increased intelligence and greater love of rural life, Dean Henry went on to say:

"The culmination of all these improved conditions will bring about a new factor of the highest value to the farmer—co-operation. When our farmer friend has grown truly intelligent, when he comes to love and properly appreciate his farm, as he surely will, when the brotherhood of man is recognized, then will come the great advance, that of industrial co-operation. The cohesiveness of American farmers in the past has been like that of dry sand in one's hand. In the near future they will join together in securing the best livestock for their flocks and herds, the best grains and trees for their fields and orchards, and the most effective fertilizers for their soils; then especially will they join together in assembling and marketing their products in the most judicious economical manner.

"Intelligent co-operation among farmers is as sure to follow in the present upward movement as is the sun to rise tomorrow. Intelligent production and economical marketing, thru co-operation, will place the American farmer in the very front rank of all that goes to make for enlightened citizenship.

"To my mind these better days are close at hand, for progress is cumulative, moving with accelerating pace when the way is clear. As educators it is our pleasure, as it is our duty, to hasten this glad day."

But in 1907 Dean Henry's work at the university ended. While he had hoped that he might continue a large part of his service to the state, his health never again permitted him the activity he would have liked. However, it still remained for him to take a leading part in one of the great struggles for the betterment of rural life, the development of the parcel post system in 1912. To many of us at the present time, parcel post is accepted as a matter of fact and the fight for its inauguration is hazy, if it is remembered at all. The story of this struggle is best told in Dean Henry's own words, from notes which he made at the time:

"Observing that a large amount of opposition to parcel post was being raised by the merchants' retail associations and various other urban organizations, I became deeply interested in the matter and remained in Washington several days. I had planned a trip to the south and the tropics to avoid the rest of the winter; but what I saw made me change my plans, and I came to Madison and employed one stenographer all the time and another part of the time to aid with the work. Four sets of matter . . . were mimeographed and copies sent to a list of 200 agricultural papers scattered thruout the United States. At this writing the opposition to parcel post by the merchants and manufacturers is exceedingly great, and large sums of money have been raised to further the opposition.

"I had not worked long before I realized that we must get the farmers into action by writing letters; and accordingly I hit upon the idea of having March 18 as Farmers' Parcel Post Letter Day—a day on which the farmers were all to mail letters to their Washington representatives pleading for a parcel

Methods

Suggested Jobs in Organizing and Teaching the First-Year Agriculture Course

J. B. KIRKLAND, Teacher-Education,
University of Tennessee, Knoxville

THE interest and accomplishments of students enrolled in the first-year course in vocational agriculture depend largely upon the teacher's recognition and performance of his job in organizing and directing the work of the group. There are a number of jobs that are necessary for the teacher to do in organizing and teaching the first-year course that are not found in teaching the advanced courses.

Since the average student upon enrolling in vocational agriculture knows little about the facilities and objectives of the department of vocational agriculture, the teacher should familiarize each student with these. The teacher will likely find that the average student has only a casual knowledge of the agriculture of the home farm and of the farms in the community. If the teacher of vocational agriculture is to interest the students in planning a comprehensive farming program, the writer believes that each student should be taught to recognize the types of farming in which the farmers of the community are engaged, the relative economic importance of the classes of livestock and crops, the economic outlook for the principal classes of livestock and crops, and the possibilities and adaptability of each of the principle classes of livestock and crops on the home farm.

The content of the course of study for the first-year students should be solely of an orienting nature until each student has selected his farming program. Orientation of new students in vocational agriculture has been used since 1930 by many teachers in Tennessee*. The orientation study may require from six to twelve weeks or more depending upon the teaching methods used and the diversity of the agriculture of the community. The teacher, however, should spend sufficient time to enable each student to realize the importance of considering the farm as a unit and the economic factors that affect a sound farming program.

After each student has planned his farming program the teacher is then ready to teach the operative and managerial jobs that each student proposes to do in conducting each enterprise in his farming program. The course of study will include, mainly, a study of those jobs which will be done by the students in conducting their farming programs, and of the supplementary jobs that the students will likely, or should, perform in connection with farming programs.

The foregoing are steps that have been developed in Tennessee thru teacher-training during the past several years. In the beginning students had to draw

production, stocks, exports, etc., in making an economic study of agriculture. Since 1933 the work of both the student and teacher has been facilitated by the availability of such data in graphic form from the U. S. D. A. Bureau of Agricultural Economics and other agencies. It has been the observation of the writer that in Tennessee the use of the foregoing steps has been instrumental in teachers getting students to look at agriculture as a whole, with the result that a greater percentage of students are planning and conducting larger and better balanced farming programs.

The following list of teachers' jobs are suggested as a means of aiding the students enrolled in the first-year course in vocational agriculture to get a broader and clearer conception of its value and function:

1. Acquainting each student with the physical facilities and the program of the department of vocational agriculture.

The students should be informed of the objectives set up in the long-time program of agriculture for the community, the accomplishments to date, and the goals and proposed methods of attaining these for the current year. The students should understand the objectives of the department of vocational agriculture in preparing them for farming. The supervised farming-program should be explained to the students as a means of training them for farming and not merely a requirement for course credit. The various methods to be used in teaching should be explained to the students. The students should become familiar with the facilities of the department, including use of reference material, magazines, radio, laboratory equipment, shop equipment, etc.

2. Teaching each student to understand and use a survey blank as a method of studying the home farm.

The use of the farm-survey blank should be taught to enable the students to determine the present use of land, type of farming, number and kind of livestock, acreage and production of farm crops, fruits, and vegetables on the home farm.

3. Teaching each student to make a map of the home farm.

After the farm survey has been completed a map of each boy's home farm, drawn to scale, should be made showing the acreage and present use of fields, location of buildings, roads and streams, soil types, percent of slope, and degree of erosion in each field.

The mapping of the farm is an important method of teaching the boy the basic factors that determine the future

4. Teaching each student to tabulate and use data collected on the farm-survey form.

The students should be directed in tabulating and summarizing the data collected from the surveys of the home farms in order that they may more accurately ascertain the types of farming, principal crops and livestock produced on each type of farm. The data thus secured then may be compared with those of other farms in the community, especially with those of successful farms of each type of farming conducted in the community.

5. Teaching each student to determine the outlook for the enterprises conducted on the home farm and on the average farm in the community.

Excellent use may be made of the U. S. D. A. "Agricultural Statistics," U. S. D. A. Outlook Charts, "The Farm Outlook," and similar outlook material in making this study. To facilitate the use of the above material it is well to have the students make graphs showing the price and production trends of some important enterprise. After three or four days have been spent in making and studying graphs, the students should have a fair understanding of how graphs are made and read. Considerable time may be saved by using graphs, charts, and film strips prepared by the U. S. D. A. Bureau of Agricultural Economics when the teacher feels that the students have acquired a working knowledge of interpreting data in graphic form.

6. Teaching each student to determine how the outlook may influence the enterprises conducted on the home farm.

After the students have completed a study of the outlook of the principal enterprises conducted on the home farm, and on the average farm in the community, they should be taught to recognize what adjustments should be made in the production of each enterprise for the ensuing year.

7. Teaching each student to select the type of farming for which he expects to train.

With the use of the farm-survey data of the home farm and of other farms in the community, the students are lead to determine the characteristics of the different types of farming. Before a student makes the decision as to the type of farming for which he expects to train, he should consider the types of farming in which the most successful farmers of the community are engaged, the amount of capital required, the acreage needed, the soil requirements, labor requirements, equipment and buildings needed, market facilities, probable income, risks and personal interests.

8. Assisting each student in building a farming program.

After each student has decided upon the type of farming for which he expects to train and has determined the outlook for the major enterprises that are conducted in the community, he should set up a long-time farming program (four years or more) which will

to the type of farming for which he expects to train and for which he has facilities to conduct. In determining the size and scope of each enterprise the student should consider the outlook and available facilities.

9. Teaching each student how to keep farm records.

The students should be taught the need for, and value of, keeping accurate yet simple farm accounts. Sufficient time should be allotted to enable each student to acquire an interest in, and working knowledge of, the use of the inventory, labor account, cash account, and financial summary before he actually begins his farming program.

10. Teaching each student how to finance the farming program.

This will involve a study of the estimated expenses and receipts for each enterprise included in the farming program. The students should be taught the sources and proper uses of farm credit. Sufficient time should be devoted to the study of farm contracts (business arrangements) to enable each student to write a definite statement of rental agreement, financial support, use of horse and man labor, supplies needed, and distribution of income for the entire training period as well as for each of the enterprises included in the first year of the program.

11. Teaching each student how to analyze into jobs each enterprise included in the first year of the farming program.

Each student will not have the same jobs to do even if conducting similar enterprises. A student will, of necessity, have more jobs to do in conducting an enterprise that is his major enterprise than will another student conducting a similar enterprise as a minor or contributory enterprise. The students should analyze each enterprise into jobs in the light of the available facilities, purposes, size, and scope.

12. Teaching each student to prepare an annual program study-calendar.

After each student has analyzed each enterprise included in the first year of the farming program into jobs, he should set up a plan or calendar showing the order in which the planning and management of the jobs should be done. It will be necessary for the students and teacher to work together in setting up the program study-calendar which, to a large extent, will involve the use of individualized instruction.

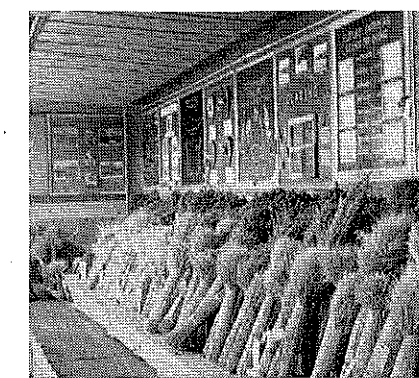
13. Teaching each student how to plan the proposed method of doing each job included in the enterprises of the first year of the farming program.

Upon completion of the program study-calendar each student should determine the recommended practices for doing each job. These studies should be made seasonally and the study of each job should precede the actual time of doing that job by at least two or more weeks in order that the student may have ample time to make a definite decision as to how he will actually do the job. The decision made by each student should meet with the approval of the teacher and parents. The use of individualized instruction will be used almost exclusively in teaching students how to plan the doing of each job.

14. Teaching each student to transfer plans and records to the account book.

fer the farm-survey data, inventory, business arrangement, lists of jobs, and proposed method of doing each job into the farm account book, the teacher should approve the manner in which these are written in his class notebook. Labor operations and cash transactions should be transferred into the farm account book from the student's home record book at least twice per month. In order to avoid errors in posting the records the teacher will find it necessary to give individualized instruction and rather close supervision of students in transferring these records.

*Fitzgerald, N. E., "Suggestions for Orienting New Students in Classes in Vocational Agriculture," *Agricultural Education*, Volume III, No. 7, January, 1931.



Poster Exhibit Along Wall

A Poster Exhibit

R. H. PALMER, Teacher-Education,
Bozeman, Montana

AT THE major agricultural fairs in Montana a poster exhibit has served to acquaint thousands of persons with the activities of the F.F.A. chapters in the state. The posters are the center of attraction in the F.F.A. section displaying the usual exhibits of grains, vegetables, fruits, and farm mechanics projects. Approximately one half of the F.F.A. chapters have made up a poster each year and entered it at one or more of the fairs. The whole exhibit is shown first, at the North Montana Fair at Great Falls; next, at the Midland Empire Fair at Billings; and then at Missoula, Miles City, and other fairs in the state. The fairs offer cash awards for the five best entries. The posters are then returned to the chapters and are often displayed at local school affairs or in merchant's windows.

To insure uniformity all posters are 4' x 4', made of 3/8" wall board panel with border 3/4" x 1 1/2", mitered at the corners. All chapters use "Flex" made by General Paint Co., Indian Yellow No. 2613 and Laguna Blue No. 2605. When mounted as shown in the accompanying photograph, they make a striking and attractive display. The posters are judged on the following score card:

Legibility	10 points
Neatness and attractiveness	10 "
Interesting to farm people	20 "
Presents a workable farm practice or idea	20 "
Conveys one central idea	10 "
Conforms to prescribed dimensions and colors	5 "
Portrays some phase of the actual work	25 "

The posters cover a wide variety of subjects. One poster may illustrate a Future Farmer's individual farming program; another may show a group activity of the chapter; another may portray in brief the main achievements in a chapter's annual program of work. Many of the outstanding posters have shown chapter members engaged in some important job in community service, such as landscaping the school grounds, conducting a rodent or pest

buying or selling venture. Other interesting posters have dealt with the chapter's progress in developing general use of an improved farm practice.

Visual materials are most effectively used to tell the story. Pictures, graphs or diagrams, and actual materials such as plant or seed specimens, or working models are shown, with a minimum of text or words. Lettering is often done by cutting letters out of cardboard and gluing them to the board. Enlarged snapshots are sometimes colored, altho black and white ones are usually best. The chapter's name is carried on a small wooden plate at the bottom of the board.

The poster exhibit has been valuable as publicity, and has a number of other benefits. Chapter members get good experience in planning and making up the posters, many of which are kept in the Vo-Ag department to serve as displays and decorations. The posters have probably given Future Farmers and their advisers new ideas about worth-while chapter activities. They also have given many farmers a new slant on some improved farming practice. A worthy exhibit does much to properly get Future Farmer activities before the public.

What Is the Secret of the Good Teacher?

HIS secret lies along three lines. First, he must be sensitive to the way the student feels and thinks. He must understand the difficulties and the embarrassments of each student. Never must he do anything to make the student feel ashamed if he doesn't know the answer or to indicate that he has asked a foolish question.

The good teacher will look to the practical management of the classroom. He will work out every detail of his management in advance. He will never make assignments that will swamp the students or for which the books are not available. He will seat the students carefully, giving the deaf and the short-sighted, special consideration.

Finally the teacher will be sensitive to significant current problems; he will help to clarify today's situation in whatever subject is under consideration. And he will point the way to future developments. In my classes in education, for instance, we are working on schoolroom methods half a generation in advance of those of today. I mean, it will take popular practice a half-generation to catch up with the best available theory.

Oregon Trainees Help Young Farmers Get Established in Farming

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



H. H. Gibson

BEGINNING in 1928 and each year since, students in agricultural education at Oregon State College have assumed major responsibility for recruiting, organizing, and teaching adult evening classes in agriculture. This year, in addition to the evening-class work for adult farmers, two part-time or young-farmer classes were organized and conducted by trainees. All these classes have been organized in Benton and Linn Counties in the vicinity of Corvallis, the location of Oregon State College.

Two Young Farmer Classes Organized

This year we decided it was high time to organize young-farmer classes, as well as adult classes, to provide participation experience for trainees. One young-farmer class, with 15 to 20 in attendance, was organized in a community 10 miles from Corvallis, where evening classes had been held for 10 consecutive years, except one. Young men who never had come into adult classes were enrolled in this class. A few young farmers who had attended the adult class in previous years as mere spectators, now actually and enthusiastically entered into the discussions of the younger part-time group. The second class, with 10 to 15 in attendance, was organized at Corvallis, and was composed of young men from three or four neighborhoods or smaller communities.

Nature of Instruction

One thing was insisted upon in organizing the young-farmer classes, namely, that the trainees would stay clear of more customary forms and types of course instruction, such as farm shop or farm mechanics, and individual crop or animal enterprise studies. Not that such unit courses and types of instruction may not be made worth while, but we wished to get experience in dealing with problems of far-reaching importance. Consequently, we held consistently to such objectives as helping young farmers to get established in farming, and making the most of their investments in labor and capital as a means of increasing their income and improving their farming status. This meant making an analysis and study of a young man's farm set-up as a whole instead of dealing with production problems and practices in relation to some individual crop or animal enterprise.

With this idea thoroly discussed and understood, much time was spent by trainees in calling on the young-farmer prospects for the class, and in studying their farming problems. The idea of making a study of each young man's entire set-up and farming business as a

farming status, appealed to the young farmers without exception. They were glad to volunteer the use of their farm set-ups, and any information they could furnish for the use of the group as a whole.

Consequently, the trainees, working by twos or threes, would survey and analyze any individual farm set-up that was to be used for group study. The size and production for each individual crop or animal enterprise were noted, and the gross income for the farm or farming business as a whole was calculated. Maps drawn to scale were made of each individual farm studied. Crop rotations and soil fertility practices, etc., were noted. Then the farm business was carefully analyzed to discover strong and weak points and possible suggestions for improvement.

Here are a few examples of the farm set-ups used:

1. One young farmer had just taken over his father's 70-acre farm with a contract to buy it. As a whole, the soil was not very productive. The group estimated the capital invested, the production and income for each individual enterprise, and for the farm as a whole,



Trainees Conduct Field Trip

which was approximately \$1,000. After deducting estimated cash operating expenses, the returns for labor and capital invested were determined.

In working out a possible reorganization of this farm, with different sizes and combinations of enterprises, it was estimated that the gross income could not reasonably be increased more than \$300. The farm was too small and the soil not sufficiently productive to make it possible for this young man to get ahead very fast and pay interest and taxes. Questions of renting additional land or possibility of buying a few acres of rich bottom soil near his present farm, where he might engage in a different and more intensive type of farming, were considered. This study required most of two evenings. This was one of many examples we found where a young farmer had invested too soon in a small-size farm, perhaps on borrowed capital, and where the gross income could not be made large enough after cash operat-

tory return for labor and capital invested.

2. By contrast to this first case given, another young farmer with even less capital than the first had invested \$3,000 in farm machinery and equipment and in this way was able to rent and farm 300 acres of land. His gross income was much higher than that of the first young farmer, and he had considerably more left for his labor and capital invested after cash operating expenses had been met. These two examples, by contrast, raised worth-while questions as to when it may be desirable to own or rent or to combine owning and renting.

3. A third young farmer had a different story to tell. He had invested \$4,000 in farm machinery and equipment and had been crop-share renting to advantage for years, but because the farm he had been renting had recently been sold to newcomers from drouth areas, he was left with a large investment and no immediate returns. Later, with some individual help from the seed crop production specialist of the college, we were able to help him get started again with a 5-year lease. This case brought out some of the disadvantages of renting.

4. One case was rather tragic in that a fatal mistake had been made in paying too much for a farm, and now an enthusiastic and capable boy was making every effort, along with his father, in many respects a good farmer, to pay off the mortgage. Here was a \$20,000 investment in a 100-acre farm and equipment. The soil was hardly average in

productive capacity. The boy was more than willing to furnish all the information that might be used in improving the situation. The farm had both a Land Bank and Commissioner's loan against it; also there were production credit loans for crops. Said the boy, as he volunteered his farm set-up for group study: "You will need to figure \$800 for taxes and interest before you can figure anything for us."

Much time was given by trainees in the survey and analysis of this farm business. Different types of farming were set up with reference to income possibilities but as the trainees said, "It just isn't in the cards." Fortunately for the other members of the class, the night this farm set-up was to be considered, the father of the boy called up to say the boy was quite ill and could not attend class that night. This relieved a somewhat embarrassing situation from every angle. In brief, they had a concrete example of how a farmer may make

as much as a farm is worth, when based on its earning capacity. They saw also that two hours' analysis of a farming business, with respect to possible types of farming, income, and operating cost possibilities, should save a farmer from making such a fatal mistake.

5. Another interesting case was that of a boy who, with his mother, had built up an accumulated net worth of over \$13,000. His father, 10 years before, had started farming with \$1,000 of borrowed money and no other assets whatever. After three years he died, leaving the operation and management of the farm entirely to his son and wife. Because they had kept accurate farm records, it was possible to figure their net worth from year to year over a ten-year period, and also to study the changes in the management and organization of their farming business during this period.

The entire course was built up around such studies, involving problems and discussion of far-reaching importance. A number of young men had a reasonable investment in farm machinery, which made it possible to crop-rent some land, to do some contract work, and during spare time, to work out in town for wages for a part of the year. Their returns for labor, capital investment and total income compared with those who were engaged in full-time farming.

One unusually desirable type of farm business and farm organization was used in concluding and summarizing our studies. It was a case of a middle-aged farmer, well known in the community, who had built up a large yearly farm income thru good management and wise investments. He owned a 200-acre farm with productive soil, located only five miles from his community center. He had selected a desirable type of farming. The production and quality of business was high. The purchase price of the farm was right, and he had secured low interest rates and good credit terms thru the Farm Credit Administration. He had a plan in operation for maintaining and increasing crop production, and for maintaining soil fertility. Most important of all, he had a business and farm large enough to make possible a satisfactory gross and labor income.

We had several cases of son and father partnership arrangements. One was the case of a boy just married who, along with the father, wanted to reorganize the farming business by a different selection, size, and combination of enterprises in order to increase the farm income. A plan for some irrigation and more intensive type of farming was worked out.

One all-day field trip was taken to visit six different types of farming, and to study different soil types and conditions. A large bus was used, which made it possible to mix fun with business and to discuss observations between visits as we went from one farm to another. The boys brought back many ideas which they were able to apply to their home farm conditions. Some got ideas of locating in other communities, on different types of soils, and in different types of farming. It is surprising how many boys may live in a community all their lives without seeing much outside in the way of different soils and types of farming unless their attention is called to such things thru systematic and directed observations.

sible to make on field trips of the kind described.

Each trainee had experience in conducting at least one conference with the part-time groups and a number of them served twice as conference leaders. Observation, in addition, was also expected at least once each week. The field work and preparation for two young-farmer classes and one adult class this year made large demands on the time of both trainees and teacher-trainer, especially in view of the fact that a study of the organization of the farm business as a whole was used thruout as a basis for conference problems. An equivalent of three days, perhaps more, was needed to make each farm organization study and to prepare for conference leading. Each trainee worked in a committee of two or three, so that each had experience in making a farm set-up study of three or four young farmers, even tho they may have served as conference leaders only twice. In nearly every case, farm maps, farm surveys, and analysis and suggested reorganization plans were finally placed in mimeographed form for each farm set-up so that the young farmers, as well as the trainees, might have a permanent record of the different farm studies. Each of these studies, including the farm map, required from two to four mimeographed pages.

The variation in occupational, social, and educational status of the young-farmer groups was very marked in both part-time classes, particularly the one located at Corvallis. The occupational levels varied from the hired-hand stage to the well-established business. Some had no more than grade-school education, several were high-school graduates. About half the members in one class were former vocational agriculture boys. Four had had one or more years of college work at Oregon State College. Ages ranged from 19 to 25. The members of both part-time groups, in the main, were quite agreeable and compatible. However, the former Smith-Hughes boys were inclined to segregate around the conference table. It became clear that special effort needs to be taken to get this group to mix with the others and to assume social responsibilities for the welfare of the entire group.

The wide variation in farming status had certain decided advantages, in that by contrast and comparison, one was able to point out the different levels in the farming business and to bring out what steps and procedures may be taken in becoming established in the farming business.

Even tho several young farmers were already fairly well established in farming, they were decidedly interested in improving their farming status. Their examples also provided incentives and many suggestions to the others as to what they might do to make progress in their farming occupations.

Assuming for the moment that there is no difference between the young and adult farmers in farming status, it would still be highly desirable to organize the young farmers in a separate class because of the noticeable increase in interest and the varied forms of participation.

After 10 years' experience, I am confident that teacher-training on participation basis is highly desirable in preparation of our teachers for a vigorous program of work with adult farmers. Our own experience in this type of

training for the young-farmer groups, convinces me that we have been neglecting another important phase of our teacher-training program in agricultural education.

Book Reviews

A Handbook on Teaching Vocational Agriculture, Glen C. Cook, 4th edition revised and enlarged 1938, 670 pp., illustrated, price \$3.00; published by Interstate Printing Company, Danville, Illinois. This practical Handbook should prove useful not only to vocational-agriculture teachers in their preparation for teaching, but to teachers of vocational agriculture everywhere. Five of the major divisions of the third edition of this Handbook have been retained in expanded and improved form in the new edition, and three new divisions have been added. Future Farmers of America has been expanded to the rank of a major division in the fourth edition, as is the case of evening and part-time work. Five chapters comprise the new major division of the fourth edition of the Handbook under the heading of Illustrative Materials. Two chapters are devoted to vocational education in agriculture and the qualifications and duties of an agriculture teacher. Thirteen chapters are devoted to classroom instruction in agriculture, five chapters to supervised farm practice work, six chapters to work in farm mechanics, and five chapters are devoted to miscellaneous activities. The appendix, covering 70 pages, deals with ten important subjects of interest to teachers of vocational agriculture. Cook's *Handbook on Teaching Vocational Agriculture* is the most complete guide for planning and executing a sound program in vocational agriculture that has come to our attention.—A. P. D.

Agricultural and Business Law for the Farmer, by V. O. Braun, (Member of the Michigan Bar), paper bound pamphlet of 81 pages, revised 1938, published by the author, Matthews Building, Owosso, Michigan, list price 75 cents. The booklet deals with a field in which we find a scarcity of law textbooks, and is designed to aid the farmer and agriculture student in the understanding of the elementary and essential legal problems relating to the farm and its operations. The major problems treated are indicated by the following chapter headings: Principles and terms defined.

The farm proper and its boundaries. Fixtures. Protection of the farmer's property. Rights of land of the farmer. Bailment law. Contract law. Domestic relations. Sales. Legal financial problems of the farmer. Legal pointers for the farmer.

This pamphlet should prove of value to teachers of vocational agriculture in teaching contractual relations growing out of the proper handling of farming programs, and should be especially helpful in discussing such problems with adult classes. The author avoids the dangers of the unqualified, unguarded statement, deals with concrete and practical problems, and uses non-technical language in making explanations of the law.—A. P. D.

Teaching Wise Use of Credit

ALTON YOUNG, Teacher,
Kearney, Nebraska

AS TEACHERS of vocational agriculture we often overlook some opportunities in teaching the essential practices in the use of money. There is no training with a more practical value and far-reaching application than that in which boys borrow money under well-planned supervision to develop their individual training programs. One of the essential factors of successful living is to establish and maintain a strong personal credit. It will certainly develop in a boy an aggressive outlook on life when he learns that more can be accomplished on the farm when the farmer can obtain good credit and use it wisely. Boys who are taught to figure their preliminary estimates properly on productive enterprises, finance their operations and meet their obligations promptly, are getting a valuable life experience not gained by many of the college graduates of today.

In a survey made with 50 experienced instructors from 10 states in 1935 to determine the factors which inhibit students most in establishing adequate training programs, all of them agreed that financing and student ownership were most important. Yet less than 25 percent of these men admitted that they urged boys to borrow money on productive training programs.

Future Farmers who are building their programs toward State and American Farmer degrees will find that they can broaden and strengthen their programs by adequate and intelligent financing.

The Kearney, Nebraska, chapter of Future Farmers of America started borrowing money as a co-operative project in February, 1936. The first loan to finance livestock and poultry projects was obtained thru the Grand Island Production Credit Association. The loans proved to be so helpful and profit-

able to the boys in getting them started on sound supervised practice programs that the amount was increased to \$2,855 in 1937. This year the loans have increased to \$3,900. Since it is required that all productive projects, unless carried as improvement projects, be 100 percent student owned and managed, the use of credit has made this requirement easier to enforce. The size of the loans obtained by each individual this year range from \$25 to \$600. Part of this money is loaned to part-time students who are establishing themselves in farming.

The goal for a boy's four year training program is either to establish himself in farming or provide for his college education. Four of the 1938 graduating class will attend the Nebraska College of Agriculture this fall. The rest of those who have built up their programs sufficiently are establishing themselves in farming. These will be financed until they are firmly established. Needless to say these young farmers form a solid nucleus for the part-time group.

The following amounts of livestock, poultry, and crops are held by the 19 members of the local chapter who are participating in the program this year. These boys also own large quantities of equipment including tractors, machinery, and shop-made equipment.

- 39 purebred sows and litters
- 3 grade sows and litters
- 9 purebred boars
- 35 head baby beef
- 37 ewes with lambs
- 500 laying hens
- 1,500 turkey poults
- 11 head dairy cattle
- 3,000 baby chicks
- 180 acres corn
- 180 acres small grain
- 30 acres alfalfa

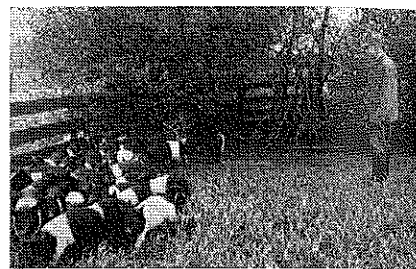
GEORGE RAFFETY—(Objective: College education)

1st Year	2nd Year	3rd Year	4th Year
1 dairy cow 1 sow & litter 2 baby beeves	2 dairy cows 2 sows & litters 1 baby beef 20 A. wheat 10 A. corn. 5 A. potatoes	2 dairy cows 6 sows & litters 1 boar 300 baby chicks 20 A. wheat 10 A. hybrid corn Home improvement State Farmer degree	2 dairy cows 13 sows & litters 1 boar 125 laying hens 700 baby chicks 2 baby beeves 5 beef heifers 10 A. corn 15 A. oats Home improvement Farm shop ½ interest in tractor Applicant for American Farmer degree

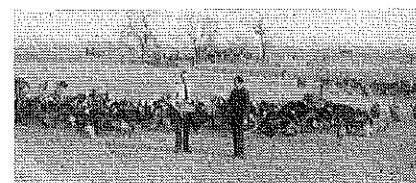
WILBUR VOLENTINE—(Objective: Farming)

1st Year	2nd Year	3rd Year	4th Year
2 sows	4 sows & litters 1 boar	5 sows & litters 1 boar	5 sows & litters 1 boar
10 A. alfalfa	10 A. alfalfa 20 A. barley	10 A. alfalfa 20 A. oats	1 dairy cow 10 A. alfalfa
20 A. barley	10 A. wheat 140 turkey poults 2 ewes & lambs	10 A. wheat 350 poults 20 turkey hens 4 ewes & lambs	30 A. barley 10 A. wheat 50 turkey hens 800 poults 10 ewes & lambs State Farmer

Two sample training programs that have been developed by boys working under the financing system are given. It should also be noted that these programs have been developed during a period of five years of drouth. Two years were so serious that we experienced almost complete crop failures. In order to obtain the co-operation of as many parents as possible for the program a series of parental group meetings were held. The boys furnished the programs for these meetings by presenting their own individual program plans and telling about the objectives and advantages of the financing program.



GEORGE RAFFETY: A part of his pig crop and 700 Leghorn chicks. George is also raising hybrid corn, beef heifers, feeding baby beeves, Leghorn laying hens, oats, and beautifying the farm home and establishing an up-to-date farm shop.



WILBUR VOLENTINE: selecting breeder, before marketing. This flock and 50 laying hens returned a labor income of \$840 in 1937. Wilbur also raises Duroc hogs, Guernsey cattle, alfalfa, barley, and wheat.

The following procedures should be followed to avoid trouble in getting loans passed upon.

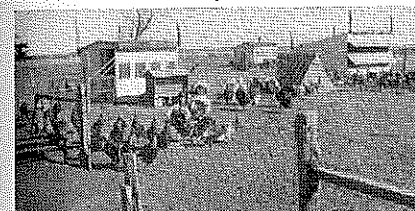
1. A complete write-up on each individual borrower listing his assets, past record, home conditions, credit statement on parents, plans of operation, and expected methods of repayment.
2. Duplicate notes should be made out payable both to the Production Credit Association and the instructor, signed first by the boy and countersigned by the parent or guardian.
3. When required by the association an individual credit statement should be filled out by the parent or guardian.
4. A collateral note showing the amount of the loan and listing the class "B" stock as collateral must be signed

no way liable for the loans except that he must supervise them and collect the money when due.

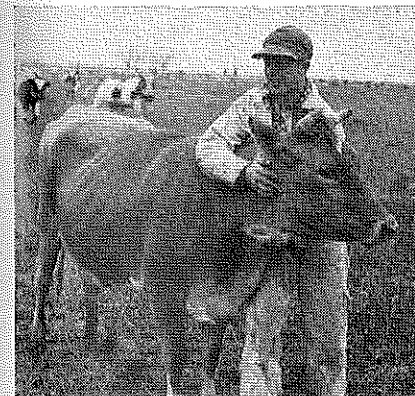
5. The instructor should be made inspector by the association to avoid the 3 percent inspection fee charged regular farmer borrowers. This will make the interest rate 5 percent to the boys.

6. When loaning money to part-time boys who are over 21 years of age, an individual credit statement must be made out in duplicate. Chattel mortgages must also be obtained on stock or crops owned by them.

7. Allow plenty of time before the money is needed in making application.



DUANE LOEWENSTEIN giving the baby chicks a proper start. Duane has 300 chicks, 450 turkey poults and 16 ewes and lambs, home improvement. All houses and feeders are shop made.



WILLIAM HOUSEHOLDER is interested in increasing his dairy holdings. He also raises trapnested White Rocks. He raises corn and feeds out hogs for market with his skim milk.

Two months is quite a safe margin. All bank notes, credit statement blanks, and chattel mortgage blanks, are furnished by the Production Credit Association.

In order to have adequate control on the loans several local rules have been devised.

1. All instructions as to sanitation, vaccinating, etc. must be complied with.
2. Individuals applying for a loan must make out a complete plan of

mates, what the money is to be used for, and how it is to be paid back.

3. The instructor must be consulted before any stock or grain can be sold.

4. Funds may not be used for anything other than the operation for which it was borrowed.

5. A monthly statement must be turned in giving the condition of the project, listing all increases and losses, and the financial value at the time of reporting.

6. All loan money is handled thru the office under student activity funds. Each individual must make out a withdrawal form and have this signed by the instructor before the money is released.

7. All sales must be applied on the loan unless permission is obtained from the instructor beforehand regarding the use of such funds.

The Farm Credit Administration has made provision for financing ambitious Future Farmers thru their Production Credit Associations. These are to be found in every state. Instructors who are interested in financing boys with cheap interest rates (5 percent) may get in touch with the nearest Production Credit office. A letter to the Farm Credit Administration in Washington, D. C., will bring a reply listing the nearest office.

Hawaii's Group Projects

CLARENCE R. FERDUN, Teacher,
Ewa, Hawaii

HAWAII'S unusual agricultural set-up has made the question of projects and their supervision very much different than it is on the mainland United States. This is especially true on the sugar and pineapple plantations.

Here, the people do not live and work on their individual plots of land but live in small plantation villages and towns. They go each day by plantation truck or train to wherever the plantation decides they are to work. The villages resemble the residential districts of many small towns on the mainland. This, of course, means that the boys who enroll in the Smith-Hughes agriculture classes have very little space in which to have a home project of any kind. There is no opportunity to have an individual project in sugar cane or pineapple, the major industries of the islands.

This situation has brought about what is known as group projects. These projects take several forms. They may be what is known as long-term contracts or they may be short-term or piece-work contracts.

Since most of these boys who are living on the plantation will make their living in the future on the plantation, the schools and the plantations have co-operated in developing a program of training for these boys. Under the long-term contracts, the plantation gives a group of school boys a contract to cultivate a given number of acres. The cane is turned over to the boys after it has been planted and has grown to be about a foot high. The boys take care of all the weeding, fertilizing, irrigating, and other jobs which the plantation management decides should be carried out. All materials are supplied by the plantation and the boys receive the advice and direction of the plantation

and supervises the work of the boys. This work is done during schooltime and is considered part of their education. The amount of time spent in the field will vary, depending on the size of the contract, age of the cane, and climate; but it will average about one fifth of the school year.

While raising the cane the boys are advanced a small daily wage. When the cane is harvested, which is usually 15 to 22 months after planting, the boys are paid an agreed rate per ton of cane produced. The advanced money is subtracted from the total money due and remainder is paid the boys in a lump sum at the end of the contract.

Under the short-term contract or piece-work plan, the boys are paid a given rate per acre for weeding or irrigating or whatever job they may be doing. The boys do not stay in the same field all the time as they do in the case of the long-term contract, but move from one field to another according to where the work needs to be done. When the boys work under this plan they usually spend one day each week in the field.

There are advantages and disadvantages to both types of contracts. In the long-term contract, the work is not evenly distributed thruout the year, since the young cane requires much more work than it does when it gets older. The number of jobs learned under this plan is limited, since all cane jobs are not carried out in a cultivation contract. However, the boys do get paid according to the amount of cane produced, which encourages them to try to produce a good crop.

Under the short-term contract, the work can be evenly distributed thruout the year. The boys take part in a greater variety of jobs and get paid according to how hard they work each day.

In both types of group projects, the boys get experience in the cane-field work, but in neither contract are they allowed to have anything to say about managerial part of the job. This can hardly be called a defect in the program, since the plantation laborer will not be called upon to make such decisions. This is also true in pineapple work.

There is still another type of group project found in the islands. This includes the group projects in swine, poultry, and gardening. These projects are taken care of by the agriculture class under the supervision of their instructor. These projects serve several purposes. They are used for demonstration purposes, as a source of good stock and a source of revenue for Future Farmer activities.

These projects are very useful for demonstration purposes. Sometimes it is not enough to tell the boys how they should raise their chickens or pigs when their parents, many of whom are orientals, will not allow the boys to put our teachings into practice. Under these circumstances, we must prove to the boys thru our group projects that what we teach is correct.

In many localities, the livestock and poultry are very inferior and the people cannot afford to import good stock. Under these circumstances, the agriculture teachers have taken it upon themselves to import good stock and to propagate it in these group projects. Then the good stock is distributed to

Studies and Investigations

C. S. ANDERSON

Dare We Face the Findings of Research?

H. G. KENESTRICK, Teacher-Education,
The Ohio State University, Columbus, Ohio

"THE length of time over which a study extends is a factor in its reliability." Thus begins an article entitled "Recent Studies in Vocational Agriculture Related to the Establishment of Young Men in Farming," by Doctor F. W. Lathrop in the March, 1938, issue of *The Agricultural Education Magazine*. Desiring to compare the findings and conclusions of the Indiana study made by R. W. Gregory and referred to in this article, with those of an Ohio study completed in 1936 and including 3,033 former students leaving school in the period from 1918 to 1934 inclusive, I followed thru with considerable interest the figures that were given in the article. Noting the statement that of 311 young men from owned farms, 64 percent were farming in 1934 and of 162 young men coming from rented farms, 55 percent were farming in 1934, I searched for the figures which would give the farming status of these young men in 1937, the end of the period included in the study. Since the article did not include these figures, inquiry was made of the author of the study. He promptly and courteously supplied full information concerning the occupations of these young men in the later period. Quite a different picture was presented by the inclusion of the later figures.

In 1937 only 144 or 44 percent of the original 331 men from owned farms were farming (the figure of 311 in the magazine article proved to be a typographical error). Of the 162 young men from rented farms only 60 or 37 percent were farming. When it was noted that within the short period of three years the percentages of young men farming had dropped from 64 percent to 44 percent and from 55 percent to 37 percent respectively, the fuller significance of the first sentence in the magazine article, "The length of time over which a study extends is a factor in its reliability," was apparent. The question also arose as to why the figures for both years were not presented in the original article, since the presentation of the 1934 figures alone was decidedly misleading.

Especially does this question seem a reasonable one when it is noted that for the young men from homes not on farms only the 1937 figure of seven farming



H. G. Kenestrick

altho the corresponding 1934 figure was 10. Perhaps this would have made the case against admitting non-farm boys to vocational agriculture classes seem slightly weaker, but it would have made unnecessary an explanation of why for the farm group and the non-farm group figures for different years instead of for the same year were matched against each other. In this particular case the difference in conclusions that would be drawn is perhaps negligible, but the principle of unbiased interpretation which is violated is vital.

In order to bring out more systematically certain relationships of data which have been referred to fragmentarily,

the following tables dealing with the Indiana and the Ohio studies respectively are presented.

The percentages in the two tables cannot be compared directly because of certain differences in the selection and treatment of cases which need not be fully explained here. However, both studies do reveal similar relationships between the proportionate numbers of farm and non-farm students of vocational agriculture who remain for a time on farms after leaving school, and similar trends away from the farming vocation with increasing maturity. If the Indiana study were to be continued for a longer period, with its present trend unchanged, as it seems entirely reasonable that it might be, both it and the Ohio study would certainly contradict the statement in the magazine article to the effect that "We are finding that, in rural communities where departments have been established a long

TABLE I. NUMBER OF SELECTED FORMER STUDENTS OF VOCATIONAL AGRICULTURE IN INDIANA WHO WERE FARMING DURING DESIGNATED YEARS AFTER LEAVING SCHOOL (1)

Group	Total Number	Number From Homes on Farms	Number From Homes Not on Farms
Number of Selected Former Students			
Original group	636	526	110
Farming in 1934	323	313	10
Farming in 1937	223	216	7
Percent of Selected Former Students			
Original group	100.0	100.0	100.00
Farming in 1934	50.8	59.5	9.1
Farming in 1937	35.1	41.0	6.3

(1) Data from a study "Factors Influencing Establishment in Farming of Former Students in Vocational Agriculture," by R. W. Gregory, 1937.

TABLE II. NUMBER OF SELECTED FORMER STUDENTS OF VOCATIONAL AGRICULTURE IN OHIO WHO WERE FARMING IN 1935 (2)

Group	Total Group		From Homes on Farms		From Homes Not on Farms	
	Original Number	Number Farming in 1935	Original Number	Number Farming in 1935	Original Number	Number Farming in 1935
Number of Selected Former Students						
Leaving school in 1929-1934	1184	702	1053	680	131	22
Leaving school in 1924-1929	1378	565	1135	541	243	24
Leaving school in 1918-1924	471	118	403	113	68	5
Percent of Selected Former Students Farming						
Leaving school in 1929-1934	59.3		64.6		16.8	
Leaving school in 1924-1929	41.0		47.7		9.9	
Leaving school in 1918-1924	25.0		28.0		7.4	

(2) Data from a study "Some Economic Factors Affecting the Establishment of All-Day Students of Vocational Agriculture in Ohio in Farming," by H. G. Kenestrick, 1936.

time, about 50 percent of the former students are now engaged in farming." It is true that the article does state: "In some cases the percentages are smaller than this." Nevertheless, in the absence of complete figures one would be inclined to assume that the figure of 50 percent included the study under discussion.

The fact that, considered on a long-time basis, only a minority of the former students seem to be getting established in farming, must be carefully considered in the light of the present production of farm population far in excess of needs for farm-operator replacement, the meagerness of choice among high-school curricula in certain sections, the inadequacy of present educational and vocational guidance programs, the need and possibility of increased emphasis on teacher responsibility for definite efforts toward progressive establishment in farming, etc. These implications cannot be discussed in detail here. The situation should be considered challenging, not discouraging. Meanwhile, when we need the most complete and accurate data possible, and the soundest judgement in drawing conclusions, let us not obscure the situation by juggling part of the figures.

A further investigation of the original data in the study reveals conclusions still more superficially drawn in the magazine article. Discussing the length of vocational courses, the author of the article states that the findings of this study "Indicate that students who take four-year courses in vocational agriculture are more likely to go into farming and related occupations than students taking one, two, or three years of agriculture." Again, "Increasing the length of course is shown to be a factor in increasing the percentage going into farming." There might be some question as to whether young men about 21 years of age who have remained on farms for three years after leaving high school during a depression period have really "gone into farming" or have only remained on the farms because they have not yet found some place else to go. Laying that question aside, however, let us recognize that the conclusion drawn by the author of the article certainly does not come from the findings of the study. The author of the study states that administratively it was possible for all of the 636 students to have completed four years of vocational agriculture had they chosen to elect that much or had they chosen and been able to remain in school and take it. All students who were not in this situation were eliminated from the study. In all probability many of us would agree that a four-year course in vocational agriculture is more desirable in most localities than a shorter course. However, it is hardly necessary to try to establish this point from a study in which, by the specific statement of the investigator, no comparison was made among different groups of students having access to courses of different lengths. Probably this over zealous conclusion can be explained by the statement in the article, "These two studies confirm what many have believed for some years." Was there some wishful thinking in the interpretation of this study by the author of the maga-

These discrepancies and shortages existing between the statements in the article and the data in the study on which the article was based bring out strongly the need for extreme care in interpreting the findings of a scientific study, especially when the interpretation is made by someone else than the author of the study. A study such as that made by Gregory may be of inestimable value to teachers of vocational agriculture in causing them to scrutinize carefully their objectives and to evaluate the results of their efforts. But these beneficial outcomes are contingent upon sound interpretations of the findings. Either the interpretations should be carefully and unflinchingly made by the interpreter, or a correct balance of the facts should be presented and individual readers left to make their own interpretations.

Research in agricultural education is as yet relatively undeveloped. In the absence of a really comprehensive body of research studies of high quality we probably tend to act too largely on the basis of hunches and opinions. Here and there a small area has been moderately well explored. If a scientific attitude is to be developed and maintained by teachers and other workers in the field we must make every bit of research already done count for the most both thru its direct value and thru its indication of what else needs most to be studied. This calls for facing the findings of research squarely, regardless of whether the facts are pleasant or unpleasant in their immediate implications. Quite probably relatively too much of our efforts in research have been directed towards establishing the effectiveness or superiority of our past accomplishments, instead of toward discovering problems which need our best efforts in their solution.

The findings of research in agricultural education will contribute most helpfully to the training of farmers and future farmers if we face the unpleasant facts as indications of misdirected efforts in the past and challenges to more effective action in the future. We are wasting time, money, and professional effort by selecting certain facts, omitting certain others, and drawing erroneous conclusions in such a way as to bolster up a preconceived idea of what ought to be.

We do dare face the findings of research. Let us do it!

Editor's Note: This challenging article will be responded to in the February issue by Doctor F. W. Lathrop, author of the previous article referred to by Doctor Kenestrick. We need these critical observations, the results of which should tend to improve our research program in agricultural education. The magazine is always glad to print various views on any topic.

It is well to remember that five-sixths of the students of our high schools end their high-school days with their high-school course. Therefore, preparation for making a living must be seriously considered with training in the fundamentals. And the great need of our schools is to be sure what are funda-

Unit-Cost Studies in Agriculture

ROGER J. SCHULTE, Teacher,
Manteca, California

WHAT is the cost of providing instruction in vocational agriculture in your school? How do costs in your school compare with those in other systems? If you were asked these questions, how would you answer them? Would you be able to compare costs in your department with those in other subject matter fields within your own school? Probably not, unless you kept an accurate account of all expenses for services rendered. This procedure is known as a unit-cost study.

A more efficient accounting procedure is needed by our agriculture departments today. It is a prophecy that the public will soon demand a more strict accounting of the schools with respect to their cost and output. The incidence of that demand is already here. The financial well of the public is not inexhaustible, and as expenditures increase, a huc and cry will come from the public over present accounting practices. A knowledge of our costs in agriculture, together with their justification, will place agricultural education in a more favorable light.

A standard unit cost is needed for judging the efficiency of the management. If it is known, for example, that satisfactory instruction can be had for \$50 per 1,000 students hours, and that this price represents the norm of practice, then those responsible for management have a standard of judgment that can be used for measuring the efficiency of their practices. If the instruction in this subject is costing them \$75 per 1,000 student hours, and they are aiming at results of only the usual sort, it is evident that they are wasting money, and that administrative adjustments need to be made. If they are getting the commodity for \$30 per 1,000 student hours, then it is probable that they are practicing so great an economy as seriously to injure the quality of the work.

The deficiencies in unit costs in agriculture and farm mechanics are immediately brought to light in certain comparable communities. What a school spends for agricultural transportation, instruction, maintenance, and new equipment is difficult and well nigh impossible to obtain, as no records are kept in most departments.

In making a comparative study of unit costs, two problems are immediately encountered. The first is that of making sure that our data are accurate. Thus, if we were comparing instructional costs in agriculture among several communities, we should know the term "instructional cost" is interpreted the same in the various communities. Unit cost studies should take into consideration all items of expense and include depreciation on buildings as well as current expenses. A second problem is that of selecting the best cost unit for computing the cost upon which information is desired. In determining subject costs, as in agriculture or farm mechanics, the 1,000 student hours of instruction offers the best unit.

The basic records needed for an efficient system of unit cost accounting in

Future Farmers of America



L. R. HUMPHERYS



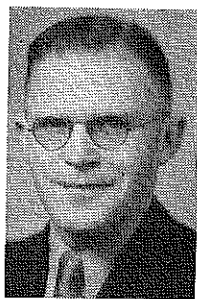
The Election of Future Farmer Officers

LESLIE NELSON, Instructor,
Brigham City, Utah

ONE of the fundamental principles in the organization of the Future Farmers of America is that the leadership shall come from its members. This principle is expressed in the *Creed*, is a cornerstone of the Future Farmer chapter organization, and is hailed by adult farm organizations as the need of the hour. Training for leadership then becomes a basic principle and function in the program for vocational agriculture. The need for this leadership is apparent when the time arrives for the chapter officers to assume their duties and start the ball rolling for the year's work ahead. The most important single element in the year's work for the Future Farmer chapter is to get a good start. To make a good start and insure a successful year depends upon the answer to a few questions: When shall the election of chapter officers take place? How shall the election of chapter officers be conducted? Is the administration of "an oath of office" desirable? Consideration will be given in the following paragraphs to the first question, "The Election of Future Farmer Officers." The remaining questions and others will be discussed in subsequent issues.

There is nothing more discouraging, disconcerting, or conducive to a failing organization than to have Future Farmers suddenly find themselves "officers" of the chapter without the slightest knowledge of what is to be done or how to proceed in directing the affairs of the organization. Such a condition is a shock to the officers and retards the normal growth of the chapter. This "state of affairs" very often exists when the election for officers is held at the beginning of the school year with a large group of Green Hands or candidates for Green Hands participating for the first time.

The officers to be elected should represent the best material available in the chapter for the respective offices. They should have training for the job, an opportunity to see the machinery of the chapter in motion, and a chance to visualize the work ahead. This means that the *by-laws* of the chapter should



Leslie Nelson

provide for elections during the early part of the spring quarter. The spring election will give the new officers an opportunity to work with the old officers during the closing weeks of school and the summer months before assuming responsibility for administration. As a result of these contacts the new officers start in the fall with a confidence and enthusiasm that is so contagious it spreads thru the entire organization. The new officers get into action immediately instead of fumbling along for a period of two to three months while the membership is losing interest and drifting away.

Spring registration of courses for students for the following year determines the personnel of the classes in agriculture and lends itself effectively for election of chapter officers in the spring. The new officers will have a number of opportunities to receive special training to fit themselves for the job before they "take the helm." In the first place they "sit in" at regular chapter officer meetings, become acquainted with procedures, practices, and needs for the year ahead. The thoughtful adviser, in addition to arranging for this procedure, will map out a training program for each individual new officer. The president of the chapter can take the officers-elect thru a "course of sprouts" thru individual conferences. A specific, individual, training program can be worked out for each officer. This program might profitably include a *careful study of the constitution and by-laws*, the *objectives of the organization*, *parliamentary procedure*, a *perusal of the minutes of former meetings*, a *knowledge of properties of the chapter*, *familiarity with official ceremonies*, and the *significance of the oath of office*. These procedures taken together while the officers-elect still have an opportunity for daily contact with the adviser, will have the effect of making a rather thorough preparation for the job ahead and creating an ideal setting for "another administration."

In rural organizations as they exist today there is need, and usually is, for a provision in either the constitution or by-laws for one of the officers to hold over in the new administration. This arrangement makes for continuity of service, provides a safeguard and a source of information for the incoming officers which is both necessary and desirable. Any chapter of Future Farmers can, with profit, give consideration to such a provision in its organization.

The one big argument which is often advanced in favor of fall elections is that the new membership of the chapter will have a chance to help elect their officers, whereas if elections are held the previous spring they lose this opportunity. This contention, when analyzed, actually turns out to be a detriment instead of an advantage. These new, inexperienced members of the chapter do not have a complete concept of the functions and

know what constitutes efficient leadership. Consequently, they may elect their popular idols, the athletic heroes, or the school comedian. Whatever may be said to the credit of such candidates, they may be the wrong men to lead in chapter activities. Spring elections will place more nearly a premium on the wisdom and judgement of the seniors and discount the lack of these qualities in the incoming freshmen.

Some of our state organizations hold a training school for officers in connection with the state convention, or possibly hold a training school during the summer or fall months. This practice gives an additional opportunity for the officers who have been elected in the spring to get new ideas from past officers. Almost invariably the officer-trainees go back to their local chapters with a strong determination to put new life into the organization. It is easy to visualize what the chapter will miss if it does not have new officers as cadets to send to the annual summer training school. It is also easy to understand the extra work that the adviser will have to do with officers who have had no training and have failed to see the former officers "in action."

Briefly stated, the chapter election during the spring months will have the following advantages with practically no justifiable arguments for postponement until fall:

1. It utilizes the wisdom and experience of graduating seniors.
2. It does away with immature snap judgements of freshmen.
3. It provides opportunity for the new officers to receive the tutelage and experience of their predecessors during a pre-service period.
4. It enables the chapter to take advantage of any training schools that may be held at the state convention or summer camp.
5. It provides incentive for long-time planning and encourages the integration of one annual program with the next.
6. It insures a prompt and early start of the year's activities.

Spring elections promote confidence and enthusiasm among officers and members and make for an efficient young-farmers organization.

F.F.A. Co-operates With State Highway Patrol

DUKE WELLINGTON, Adviser,
Stanford, Montana

MEMBERS of the Judith Basin Chapter of Future Farmers have co-operated with the state highway patrol in spon-



Patrolman Young

presented to the Stanford high-school assembly with a standing invitation for anyone in the community to attend. Patrolman Joseph Young of Montana District Six was the guest speaker of the afternoon and gave a very interesting and educational address on Safety Rules for Driving. He reviewed the penalties for violations of the Montana highway rules and cited cases from actual accidents. He also mentioned the more frequent causes of automobile accidents on the Montana highways.

Ray Hall read "And Sudden Death" by J. C. Furnas, an article which was published in the Readers Digest and has received much favorable comment from every part of the nation. Altho this reading is very gruesome and horrible, it presents the facts of accidents that are taking place in the United States every hour of the day. It has been thought that the people who read or hear this article will perhaps slow up and think before taking unnecessary chances when driving on the highways.

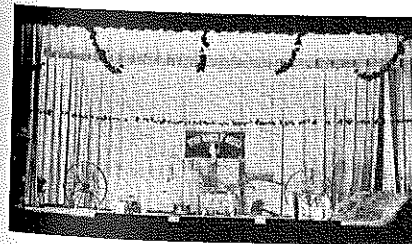
Lloyd Schmitt, President of the Judith Basin Chapter, acted as chairman and in closing received the united co-operation of the student body in a promise toward safer driving.

Patrolman Young congratulated the members of the chapter on the program, stating that "because of programs of this nature, there will be a slowing up of our death rate due to motor vehicle accidents and the unnecessary destruction of property."

F.F.A. Barn Dance

HAROLD R. KNUDSEN, Teacher,
Poland, New York

MOST Future Farmer chapters are interested in how to raise money to carry on their activities. Raising funds for chapter activities and having a good time were successfully combined at a recent barn dance held at the Poland



Stage Decorations

Central School Auditorium by the Poland Future Farmers at Poland, New York. It is hoped that some of the ideas conveyed by this article may be sug-

Our planning for this event was based upon the assumption that something new and different, that could be advertised in an attractive manner, should be successful. We finally decided to have a barn dance and to decorate the stage and dance hall in a manner which centered around the theme of agriculture. We therefore decided to hire a regular square dance four piece orchestra who called themselves "The Overall Boys or the Old Time Band of the South." Mimeographed posters were sent to all of the surrounding country; it was advertised in the local papers and flashed on the screen at the local theater.

The posters contained the following: Barn Dance, May 17. Square and round dances. Music furnished by the "Overall Boys or the Old Time Band of the South" consisting of Slim, Bob, Chuck, and Lem. Floor show at 10:45 p.m. Refreshments. Admission 40 cents, extra ladies 15 cents.

As a result of this planning we had an attendance of over 250 people in a community with a total population of 450. Dancing started at 9 o'clock and lasted until 1 a. m. At 10:45 p. m. a floor show was put on by the orchestra which consisted of cowboy melodies, popular songs, jokes, and instrumental numbers.

The stage was decorated to represent the interior of a barn as it might appear at an old-fashioned barn dance. In the center and at the back was the F. F. A. banner with an owl perched on a plow, symbolical of the Future Farmer emblem. On each side was a large rake wheel with traces of corn attached. Other decorations consisted of a cow stanchion, a hay mow, milking equipment, shovels, pitchforks, horse collars, bridles, saw horses, and gavel stands. Around the edge of the auditorium were a number of bales of hay which were used for seats.

Over \$60 were taken in, \$31 of which represented clear profit. Everyone had a hilariously good time and are begging for more of this informal type of entertainment.

One Year's Activities

A. A. TAMPKE, Teacher,
Byers, Texas

AFTER the Byers, Texas, F. F. A. chapter was organized in September, they immediately set out to do something.

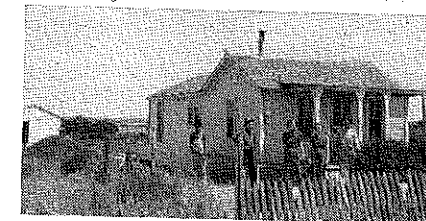
Early in the month they elected officers and had their entire chapter paid up with 100 percent F. F. A. membership. This was the total high-school enrollment—59 boys to be exact. The next month the chapter prepared an educational exhibit on soil conservation which won first place over 12 competitors at the Graham District Fair.

In December the freshmen students entered the Green Belt Poultry Show and won the poultry judging contest by a wide margin. This was, incidentally, the fifth consecutive win at Clarendon against no defeats.

The next major activity was a buffet luncheon and an activity program which featured a well-prepared meal, cooked and served by the boys. Barbecue, potatoes, pickles, beans, onions, bread, and

dent of schools, county farm agent, and Mr. Oscar Dodson, Texas State President of Future Farmers. The local chapter demonstrated rafter cutting, saw filing, soldering, rope work, poultry culling and selecting, poultry feeding, and calf feeding. There were 150 boys, dads, and friends present.

In February the first fat calf show in Byers was held with 18 calves groomed and ready for the market. The calves were then shown in the Clay County District Show where 60 calves competed. The Byers calves won all the money places in their division with the exception of one. Total premiums were \$45. Also during the month the Byers students won the district basketball playoff which qualified them to enter the area contest and there the local boys reached the semi-finals and ranked third in the area.



Home of John Reece

In March they entered the Area Judging Contest and ranked second sweepstake school among the 68 schools in the area. Here they qualified their dairy, poultry, and farm shop teams for the finals in the state meet.

April and May found these future farmers in a new field of activity, which may be wisely called, "Future Home Builders." They had for their class project the building and construction of Joe Reese's new home. Reese is the local school's janitor. Old shacks were torn down and a new addition was built on to the front room using old lumber, except the shingles, and flooring. The new lumber, paper, and paint cost \$75. The front room and porch were entirely remodeled.

All old windows were repaired, screens were made, doors were repaired. The door frames, window stops, screen stock and door stops were ripped out of old ship lapboards. Much of the dimension lumber was ripped from two by sixes and two by eights.

A barn was built which has ample room for the car, cow, chickens, and feed.

The house is modern in all details, having closets, cabinets, shelves, sink, water, gas, and lights.

The students made drawings, figured bills of materials and costs as the job progressed. It really carried with it the true vocational spirit, developing the physical skills along with the managerial decisions.

Pertinent Questions

The State Reporter of the Maine Association wrote his chapter reporters as follows:

"Mr. Reporter: Iowa State Reporter, Fred Sievers says: 'Some reporters do; some don't; some reporters should; some reporters won't. And

William Arnon Henry

(Continued from page 125)

post. At this writing, the result is not known. I am full of confidence of ultimate success, but it is pitiful and disgraceful that there should be such a large opposition to this movement which means so much to the whole people of this country." (Dictated March 12, 1912)

"On March 16, I left Madison for Washington, D. C., to note the results of the Farmers'-Parcel-Post-Letter-Day-March-18-movement. The letters from the farmers began to reach the members on Tuesday, March 19. By the middle of the week a flood was pouring in. A conservative estimate places the total number of letters and postal cards received by the members of both houses in congress at 100,000. Some persons estimated the numbers at more than twice that. Over his signature Senator Pomerene of Ohio stated that he received over 2,000 written communications favoring parcel post, in the week of March 18. In a large number of cases, members of

congress were unable to reply by individual letters and used the duplicator or other manifold processes for their replies. When it is realized that there were over 25,000 petitions, practically all from businessmen's associations, country merchants, etc., opposing parcel post, it will be seen and realized how necessary such a co-operative unified movement as this was. The members of congress were awakened to the parcel-post situation as never before. I circulated freely among them for a considerable period, in order to learn the situation and to write about the movement. Afterwards I was in Washington twice for considerable periods, making four sojourns at the capital city in behalf of parcel post. That session of congress gave us the first real parcel-post legislation and at this writing the movement is well inaugurated. The Madison post office carried during the first week, including one holiday and one Sunday, nearly 4,900 packages.

"But this is really only the beginning of the movement. It will not be completed until the Government Post Office

Department has absorbed and taken over the work of our various express companies. The leader in this movement is David J. Lewis, member of the house of representatives from the sixth Maryland district.

"The above was written from dictation on January 13, 1913. I am leaving Madison today for Washington for a conference with Representative David J. Lewis on postal express matters.—W. A. Henry."

The fight for the parcel-post legislation was the last prominent work of Dean Henry. After he left the university he lived for a number of years with his son on a fruit farm in Connecticut. Finally he moved to California where he spent the remaining years of his life. He died in 1932 at the age of 82 years. The influence of his life will always be an important factor in the development of American agriculture.

Hawaii's Group Projects

(Continued from page 133)

the boys in the local communities. The opportunities for learning agriculture have been greatly increased thru the establishment of group projects. They give the boy a better understanding of agriculture and an opportunity to see proper methods put into practice. This could not be done if the boys had only individual projects.

Unit-Cost Studies in Agriculture

(Continued from page 135)

agriculture and farm mechanics are quite simple. First, there should be a file for current expenses. As daily or weekly bills come in they can be filed for later cost determination. Secondly, there should be a separate ledger or file including the cost of new equipment purchased which will be used for more than one year. Charge on such equipment should be based on the yearly depreciation. A third sheet should include fixed charges such as depreciation on room or building, janitorial service, and insurance. A fourth record should include mileage for each month and the cost to the school. A fifth record should include the revenue derived from Smith-Hughes funds. This factor is necessary in determining the final cost of agricultural instruction to the district, and also in comparing unit costs with other subject matter fields. With these records a very few minutes are needed at the end of each year to determine the total cost and the subsequent cost per 1,000 student hours of instruction.

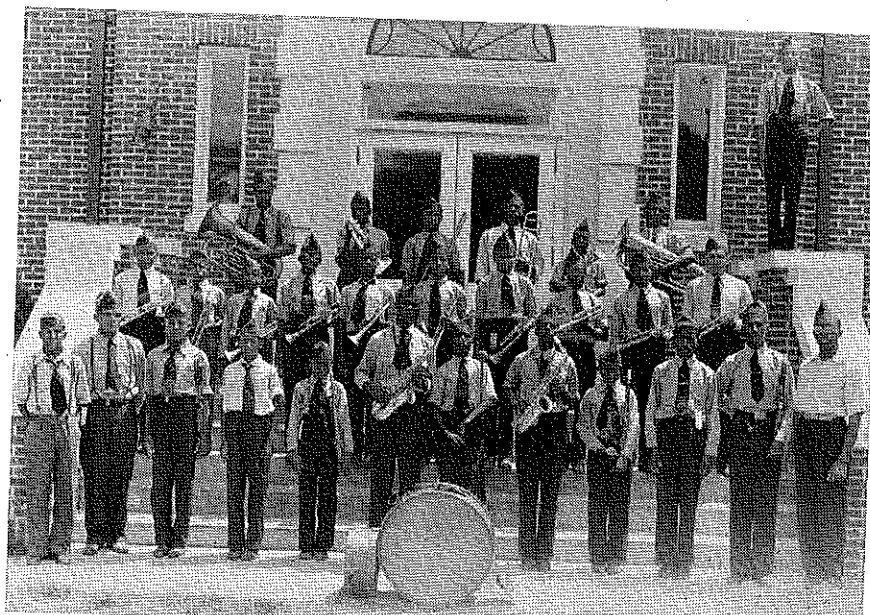
In summary, the following advantages in keeping a unit-cost record in agriculture and farm mechanics are:

1. It will ascertain the efficiency of the agricultural department.
2. It will assist in formulating policies for the department.
3. It will guarantee the wise use of public funds.
4. It will assist in making the annual budget.
5. It will assist in making yearly re-



Nearly 500 delegates, members, and friends attended the Fourth Annual National Convention of New Farmers of America at Georgia State College, Savannah, Georgia, August 21-24. The New Farmers of America Band from Laurinburg, North Carolina, furnished music for all the sessions of the convention

This is the organization of Negro Farm Boys who are learning to farm thru programs of supervised farm practice under the direction of the Smith-Hughes teachers of vocational agriculture in the high schools of the southland. It now has 800 chapters in the 18 states that have separate schools for negroes. It has a membership of more than 20,000—the largest organization of negro farm folk in the world.



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