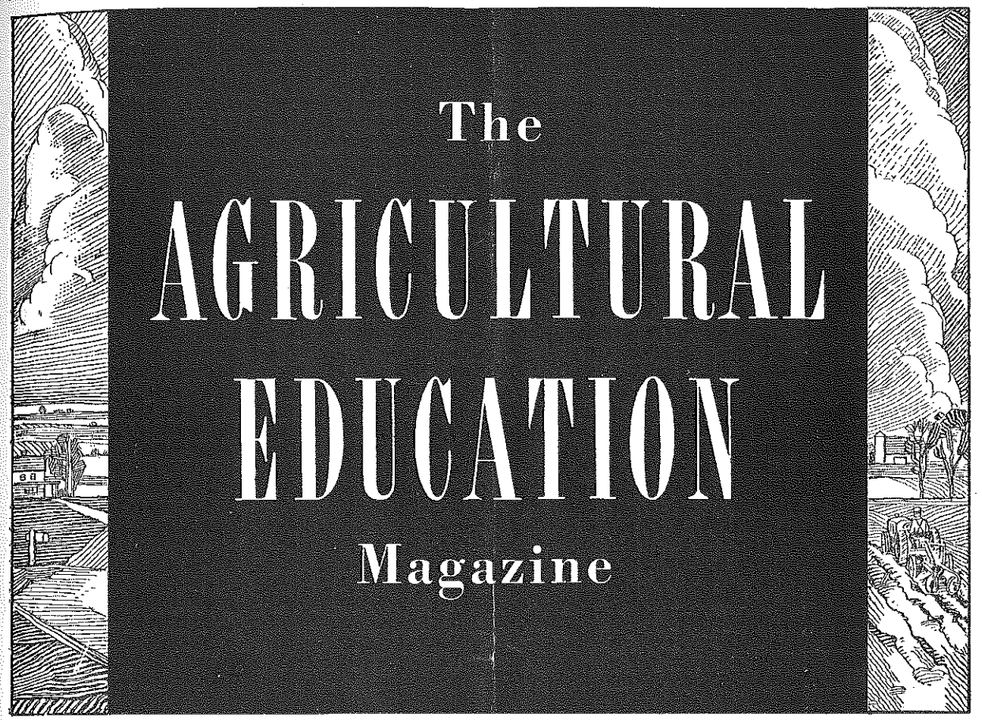
Vol. 12 February, 1940 No. 8



Cultivators of the earth are the most valuable citizens, the most vigorous, the most independent, the most virtuous, and they are tied to the country and wedded to its liberty and interest by the most lasting bonds.
—Thomas Jefferson.

The Agricultural Education Magazine

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

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

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

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Editorial Comment

New Special Editor on Evening Schools

O. C. Aderhold

PROFESSOR V. G. Martin, special editor for the Farmer Classes section, and responsible for contributions on adult evening schools in agriculture, has asked to be relieved of his duties. Mr. Martin has served in this capacity for over six years and deserves much credit for the quality of that section during this period. Dr. O. C. Aderhold, Athens, Georgia, has accepted appointment to the staff to replace Professor Martin. Doctor Aderhold is already known to the readers of this magazine, since he is a frequent contributor. He took his Ph.D. degree at Ohio State University and a summary of his thesis appeared in this magazine during the past year. Doctor Aderhold is engaged in teacher education at the University of Georgia. Articles and suggestions for articles on evening schools in agriculture should be sent to Doctor Aderhold, Department of Agricultural Education, University of Georgia, Athens, Ga.

Adult Education in Agriculture and the American Public Schools

THE American public school is facing a new crisis and a new opportunity. Within the next few years the decision is likely to be made as to whether the education of adults is to become a generally accepted responsibliity of the public schools. The prospects are that it will be.

There are many schoolmen who seem unaware of the significance of the issue and of the dangers to our existing community schools if adult education is "farmed out" to other agencies.

There is certain to be adult education. Interest and need, rather than age, are to be the criteria in determining who are fit to be educated. Someone is going to get the job of providing adult education as nearly universally as elementary and secondary education are now provided. Will it go to the schools or to its rivals? What will happen to our present school system if other agencies take over adult education?

A generation ago a few far-seeing pioneers succeeded in convincing the American people that agricultural education should be organized in the existing schools and not alone in separate agricultural schools. They failed, however, to prevent the development of a dual system of public education in agriculture which still plagues us.

We now face a parallel situation in dealing with adult education. It is possible that our local public schools may be recognized as our primary public agencies of adult education. They may be allowed only to supplement existing agencies. They may be barred from the field entirely.

Agricultural educators have been pioneers in the fight to establish adult education in the public schools. Every victory we win in this field is a victory for the entire public school system. Every time we concede that any agency, public or private, should have precedence over the public schools in adult education we betray the public school system.

The public schools have meant much to America. They will mean tremendously more if they develop their functions in adult education. Let us in agricultural education, at least, see clearly the possibilities and use our influence and our example to aid our schools and our America.—H. M. Hamlin, Illinois.

S. C. Wilson

Word has been received of the death of Professor S. C. Wilson, head of the Agricultural Education Department, Sam Houston State Teachers College, Texas. Mr. Wilson has been engaged in teacher-training work in agriculture for the past 30 years.

What Are Schools For?

IN A forum discussion a few days ago, a representative of a state parent-teacher association put this question: "What are schools for?"

The question was directed to me for reply and on the spur of the moment I said "Schools are to teach people how to learn." That may or may not be a good answer, but it elicited some thought-provoking discussion.

While individual growth, psychologically speaking, is dependent entirely upon learning still the school does not have a monoply on learning. Learning goes on at a rapid pace outside the school from birth to the end of life. Much of this learning results in good to the individual and to society; much of it results in ill to both the individual and to society. The school is an institution called into being to "teach people how to learn" under all conditions of life in order that they may continuously grow, individually and socially, to the limits of their capacities.

The school may go about its task in many ways, but in general it now moves in one of two directions according to the philosophy it holds. The school may attempt to meet its responsibility by placing before the individual "selected masses of organized knowledge," and it may say: "Learn this and this and this, which form the ripe generalizations of the past." Further it may say: "Take this test, and this test, and this test, and you can tell how well you have learned these accumulated conclusions of the past; the generalizations of yesterday."

This "looking to the past" may be the school's program in meeting its social function in teaching "the people" how to learn.

On the other hand, the school may attempt to discharge its responsibility to society by placing in the hands of the individual "the working tools and techniques of reflective thinking, the science of sound judgment, to be used by the individual as he proceeds thru life." In this case the school may say to the individual: "Learning is inevitable thruout life, and in this school you may 'learn how to learn' as you proceed on your journey; here you may learn how to discover your problems and how to analyze these problems; you may learn how to select and organize the accumulated and accumulating experiences, facts, and principles of the past about these problems leading thru reflective thinking towards their solution."

This "looking forward" philosophy may be the school's program in meeting its social obligations in a democratic society fraught with multitudes of new and changing problems for the individual.

Whether the school looks backward or forward in its philosophy, the fact remains that it was called into being to teach people how to learn and live in a developing democracy. The fact also remains that any selected masses of information learned today will be out of date tomorrow, but the *science of sound judgment* will improve with use thruout the years.

"We, the people" may pay our money and take our choice when we have decided "What are schools for?"—John T. Wheeler, Georgia.

"Whither Agricultural Education?" Booklet

IN WHAT directions can we expect agricultural education to develop in the future? What philosophies are becoming dominant in our work? What are the characteristics of a modern program of agricultural education in the public schools? The answers to these and many related questions are made available to teachers of agriculture in printed form in the booklet, "Whither Agricultural Education?" First appearing as a series of articles and later reprinted in a booklet, this collection of writings by leaders in agricultural education is still available for those who act quickly. Single copies are priced at 15c. If orders of twenty or more are sent in the price is 10c each. Send all orders to L. L. Anderson, Meredith Publishing Company.

A. K. GETMAN

Professional

R. W. GREGORY

Contributions of Leading Americans to Agriculture—Gifford Pinchot

DR. C. S. ANDERSON, Professor of Agricultural Education, Pennsylvania State College

C. S. Anderson

CYRIL Constantine Desire Pinchot, a Frenchman, fleeing the Bourbon restoration, took refuge among the wooded hills of northeastern Pennsylvania. There in the village of Milford, one of the most picturesque spots of the Keystone State, he opened a country store and married the daughter of a major in the continental army. Gifford Pinchot is their grandson.

Gray Towers, the summer home of the present generation of Pinchots, was erected by Gifford's father. It is a Norman building on a hillside a mile from Milford, Pennsylvania. It rears its bulk on an estate of some twelve hundred acres. The ancestral home of the Pinchots is in the village below.

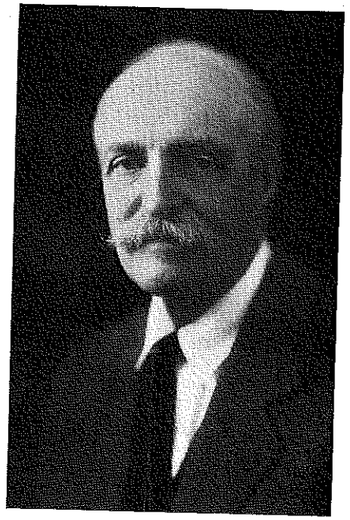
Gifford Pinchot was graduated from Yale University in 1889 with an abiding enthusiasm and interest in forests. Born in the forests, reared in the forests, he was destined to be the first man to assume the stewardship of our nation's forests. Born with advantages of wealth and social position, Mr. Pinchot did not need to choose so arduous a task. However, it may truthfully be said that he devoted the best years of his life to study and work in the interest of forestry, and to the problems of forest conservation. Often this work was done gratuitously.

There were no schools of forestry in the United States at that time, so upon completion of his work at Yale, young Pinchot went to Nancy, France, where he studied sylviculture and other branches of forestry. Under the guidance of Sir Dietrich Brandis, inspector-general of the Indian forests, he visited the great forests of Germany, Switzerland, and France. Upon his return to the United States he was undoubtedly the best-informed person in this country on matters relating to scientific forestry.

Following a tour of the western states and Canada, a tour designed to survey forestry problems, he returned to New York and opened an office as consulting forester, the first one of his profession in America. His first practical forest management project was on the 100,000 forest acres of the Vanderbilt estate at Biltmore, North Carolina. It was there that he demonstrated his theory and belief that the forests could and should be maintained as a crop, if they are to meet the demands of progressing civilization.

Awakening an Interest in Forest Conservation

About this time scattered attention was being focused on the needs for forest conservation. Some public opinion on the issue had already been expressed. In 1896 the Secretary of the Interior requested the National Academy of Science to report on a national forest policy for the forested lands of the United States. The Academy in turn appointed a commission, of which Mr. Pinchot was a member, for help and advice, for he was recognized as the nation's foremost authority on the problems of scientific and practical forestry.



Gifford Pinchot

It was this same commission which a year later recommended to President Cleveland the creation of 13 new national forests. The next year Gifford Pinchot became the Chief of the Division of Forestry, later the Forest Service in the Department of Agriculture, a position which he occupied until 1900.

When Mr. Pinchot assumed his duties as Chief of the Division of Forestry, he found that he had inherited a starving infant bureau, one which lacked public interest and one which received indifferent, even unfriendly congressional support. Something had to be done about it. As a nation we could not go on indefinitely dissipating our natural resources, particularly those of our forests. His new job presented a challenge and he reveled in it. It afforded him the opportunity to pour all his apostolic zeal into a cause which he loved and in which he believed. His first step was to simplify and dramatize the idea of forestry and to drive home its significance to the layman and politician as well. Misinformation and misunderstanding had to be corrected. Private interests, hostile thru ignorance and selfishness, had to be changed and educated. When we study the succession of events which occurred during Mr. Pinchot's decade of public service devoted to the cause first of forestry, and afterward to conservation, from the time he first formulated that policy in 1907, we are impressed not only by his patience and his courage but by his almost limitless energy and determination to accomplish a purpose. This same characteristic has followed him thru his long years of faithful public service and still distinguishes him among statesmen.

Accomplishments With the Forest Service

Mr. Pinchot is rightly credited with performing two vitally important tasks during his regime in the forest service of the United States. (1) He gathered and organized in a most convincing manner the data necessary to found a science of American forestry. (2) He worked to bring about a conservation-consciousness among the American people and developed a plan for the wise use of all of the nation's natural resources; not only the forests, but waters, lands, and minerals as well.

Few men associated with public affairs are more courageous in following their convictions than is Gifford Pinchot. It has often been said of him that once he has made up his mind on a matter, there is no human agency that can change it. Yet his tolerance, his patience, his broad-mindedness, his willingness to listen to reason also characterize his relationship with his colleagues and with his fellowmen. His force of personality, his frankness of expression, the abundance of convincing facts which he invariably has at his command, all contribute to his influence and leadership. The following incident, which took place during his pioneer days in the forestry service, is told to illustrate his ability to convincingly sway public opinion. The stock-raisers of the Rocky Mountain West were aroused by certain new regulations restricting the grazing of their stock on government lands. These regulations had been inaugurated by the Forest Service at Washington. The stockmen demanded that Mr. Pinchot come to the West and face the issue with them. Irate cattle and sheepmen from far and wide journeyed to Denver to "show this man Pinchot where to get off." It was expected that the controversy might last some time and become a heated one. It was a long fight, but one in which the genial young forester eventually brought the stockmen to realize that the new regulations were actually not in conflict with their interests.

What Our Leaders Have Said

In writing on "Gifford Pinchot and His Fight for our Natural Resources" in the *American Review of Reviews* of January, 1909, Mr. Hewitt Thomas comments: "Call him a dreamer if you will; he dreams for the welfare of the people. Say he is an enthusiast, but an enthusiast seeking to safeguard the people's rights. But never forget that when dealing with Gifford Pinchot you are face to face with an intensely practical, hard-headed, farsighted man to whom self-interest is never a consideration, to whom the right is always the controlling motive." It is these qualities in the personality of Gifford Pinchot which were so clearly reflected in the results of his efforts to bring about a greater appreciation and understanding of the problem of conservation of our natural resources.

Mr. Pinchot's successor, appointed by President Taft in 1910, was Professor Henry S. Graves of Yale University, now Dean of the Yale School of Forestry. The following is a recent quotation from Dean Graves concerning his lifelong friend and former teacher: "From the beginning of his administration of the national forests Mr. Pinchot's efforts were directed in the interests of the settler and small rancher. This was expressed particularly in the grazing policy. He had full appreciation of the service of the national forests to the farmer who, within and near the boundaries of the forests, is dependent on them for forage, timber, and other resources. He initiated the idea of coordinated use of resources, and the interests of agriculture always held a prominent place in his public policies.

"The work of Mr. Pinchot in advancing the movement of forestry and securing an application of its principles to the field, both on the national forests and in many places on private lands, is in itself a contribution of unmeasured value to agriculture."

Service to the Farmers of the Nation

Dean Graves calls attention to the emphasis which Mr. Pinchot placed from the very beginning of the federal division on its responsibility to the farmer, advising him and assisting him in planting and caring for trees and in educating him in the best forest and woodlot practices. To Mr. Pinchot is given most of the credit for uniting the federal activities in forestry and agriculture.

Professor Ralph S. Hosmer, of the Department of Forestry of Cornell University, who also worked with Mr. Pinchot during his forestry pioneering in Washington, in retrospect now regards Mr. Pinchot's services to farmers and small woodlot owners as one of his great contributions. The early circulars and bulletins prepared by Mr. Pinchot and issued by the Division of Forestry offered valuable advice and assistance to owners of forest lands, first in the management of their woodlands and later in forest planting. The teachings contained in these early publications marked the beginning of a new approach to forestry in the United States.

"From the year 1907 and extending to the close of his work as Federal Forester," writes Professor Hosmer, "Mr. Pinchot devoted no inconsiderable share of his time to getting under way and developing what came to be known as the 'conservation movement'."

Teamwork With Theodore Roosevelt

The so-called "Roosevelt policies on conservation" on which so much attention was focused during the presidency of Theodore Roosevelt were largely Mr. Pinchot's policies. President Roosevelt repeatedly and publicly referred to Mr. Pinchot as the real force behind the conservation movement. In a public address in Jamestown, Virginia, in 1908, the president declared: "So much for what we are trying to do in utilizing our public lands for the public; in securing the use of the water, the forests, the coal, and the timber, for the public. In all four movements my chief adviser, and the man first to suggest to me the process which has actually proved so beneficial was Mr. Gifford Pinchot, the Chief of the National Forest Service. Mr. Pinchot also suggested to me a movement supplementary to all of these movements—the appointment of the Inland Waterways Commission."

> Mr. Pinchot's great contribution to agriculture centers around his insistence, from the early days, that the interests of agriculture and of forestry are inseparable.
> His philosophy of life is aptly expressed in his own self-styled epigram on conservation, "Conservation is common sense applied to common problems for the common good."

Again, in his autobiography, Roosevelt says, "Gifford Pinchot is the man to whom the nation owes most for what has been accomplished as regards the preservation of the natural resources of our country. He led, and indeed during its most vital period embodied the fight for preservation thru use of our forests. He played one of the leading parts in the effort to make the National Government the chief instrument in developing the irrigation of the arid west."

Roosevelt continued to pay tribute to Gifford Pinchot when he referred to him saying, "I believe it is but just to say that among the many public officers who under my administration rendered literally invaluable service to the people, he, on the whole, stood first."

In 1925 the Roosevelt Medal for Distinguished Service was awarded Gifford Pinchot by the Roosevelt Memorial Association. He had devised and fought for the policies of conservation that so distinguished the administrations of Roosevelt and was a worthy recipient of this great honor.

Space will not permit further enumeration and reiteration of the many activities which engaged his attention and to which he gave so generously of his energy during his years in Washington. It has often been said that Gifford Pinchot was more widely and more favorably known than any other executive official of the Government, except the President of the United States himself.

Pinchot's Service to Pennsylvania

Mr. Pinchot had scarcely retired from active service with the federal government, when he was commandeered by his own state, Pennsylvania. Governor Sproul, in 1920, appointed him State Commissioner of Forestry, with the following comments concerning the appointment: "We have in Gifford Pinchot a citizen of the state who is the foremost figure in forestry in the United States. We should have the benefits of his services here at home. I am glad that I have been able to call him into service for Pennsylvania."

He was accustomed to handling the national forestry problems. Conservation again became his watchword. Pennsylvania had long been ravaged by devastating forest fires. Waste in all natural resources, but particularly in the forests, was at an all-time peak when Mr. Pinchot took up his duties. Between five and six million acres of what had been Pennsylvania's finest woodlands stood fire-ravaged and arid. His first undertaking as the new State Commissioner was to check these disastrous fires. He started a campaign to arouse public sentiment and effectively accomplished his objective thru signs, warnings, posters, and the press. Pennsylvania's forests are the best preserved in the nation today.

Mr Pinchot as a Writer

Along with Mr. Pinchot's busy professional and political life he has found time to write. Besides many articles in the press and in regular periodicals he wrote *The White Pine* in 1896, *The Adirondack Spruce* in 1898, *The Forest* in 1899, *Practical Forestry* in 1900 (the latter two are collectively commonly known as *The Primer of Forestry*), *The Fight for Conservation* in 1909, and *The Training of a Forester* in 1917. His book, *The Primer of Forestry*, written nearly 40 years ago, is still an important reference for students of the subject. The first volume of the book deals with the units which compose the forest, with its character as an organic whole, and with its enemies. In it he develops a foundation for the practice of forestry and forest policies. The second volume covers practical forestry, work in the woods, and the relation of the forests to the weather and the streams.

In 1922 Gifford Pinchot was elected to his first term as governor of Pennsylvania. Again in 1930 the people of Pennsylvania elected him to the highest political office within the Commonwealth.

Students and critics of the life and activities of Gifford Pinchot find the records of his regime as governor replete with words and deeds uttered and performed in the interest of the common people.

The following elements selected from Governor Pinchot's campaign program of 1930 will serve to illustrate: (1) Equalization of taxation, with some of the burden lifted from the farmer, the homeowner, and the small business-

(Continued on page 158)

A. M. FIELD

Methods

A New Approach to Training Leaders in Farm Planning

O. C. ADERHOLD, Teacher Education,
Athens, Georgia

"DO I UNDERSTAND that one of the important problems faced by teachers of vocational agriculture is that of helping farmers to set up their farm programs?" asked one of the seniors who was preparing to teach agriculture. "During my four years in college, I have had good courses in soils, agricultural economics, livestock, poultry, horticulture and other enterprises. As a matter of fact, I believe I could make a soils map of a farm and could take a survey to get the social and economic resources of the farm. I can lay out a terrace, caponize chickens, spray and prune fruit trees, build hog houses and carry out other practices. I have much technical information about livestock and crops, but I don't know whether I could put all this information together and teach a farmer or a group of farmers to formulate sound plans for their farms."

The student who made the above statement expressed something of the feeling of 35 seniors who were about to begin work in selected apprenticeship centers to teach farmers to re-plan their farm programs. The answer to the student's question is that one of the most important problems facing a teacher of vocational agriculture involves the teaching of farmers, both in groups and individually, to set up sound farming programs. In order to do this it is necessary to bring together the best technical information available and to use this information in the re-planning of farms. The separate courses in technical agriculture pursued by the trainee have not been integrated and focused upon the problems of planning the farm program for any one farm.

Teachers of vocational agriculture who are on the job are much more conscious of this problem than are pre-service men. The coming of the State and National soil conservation programs, making it imperative for teachers to co-operate with other agencies in working with farmers in farm planning, has brought the problem into sharp focus. The teachers in service as well as other agricultural workers have experienced the same type and character of training that is now being received by the pre-service men. Such training has been inadequate in the judgment of these workers.

The need for additional training was so keenly felt by the teachers, soil technicians, and other agricultural workers in the state that the administrative officers of vocational education, the Soil Conservation Service and Agricultural Extension Service requested a special training program in farm planning.

Note: Observation of the performance of teachers of vocational agriculture in the Southern Region over a period of years has revealed that they usually teach the way they have been trained to teach and they teach the types of vocational agricultural classes they have been trained to teach.

We have progressed from the old way of organizing the course of instruction of the all-day student, with field crops the first year, animal husbandry the second year, horticulture the third year, and farm management the fourth year for all students, to the organization of the course of instruction of each individual student around his supervised farming program which will eventually lead him into becoming established in his chosen type of farming.

Teachers have developed to the point where the teaching of evening classes to adult farmers is a necessary part of their instructional program, and we are striving to train teachers to incorporate in their programs of work part-time instruction for the out-of-school young men.

Our evening-class instruction in the past has been largely instruction on certain units or enterprises without taking into consideration the relationship of that unit or enterprise to the farm business.

Participation of trainees in planning the entire farming business is our most recent and most important approach to the evening-class instructional program. The State of Georgia has made a great contribution to this procedure. The entire supervisory and teacher-training staffs have been working together to this end. The leader of this movement is Dr. O. C. Aderhold, Professor of Vocational Education of the University of Georgia. This article is in response to a request which I made in order that workers in other states might be able to have some information on this new training procedure for in-service and pre-employed teachers.—D. M. Clements, Federal Agent, Agricultural Education, Southern Region.

When this problem was presented by the teacher-training division of the university to the dean and the faculty of the College of Agriculture, they indicated a desire to work out a short training program that would have as its primary purpose the development of abilities on the part of the prospective teachers of agriculture, soil technicians, and county agents to teach farmers to deal with this important problem of farm planning. The result was that representatives from all departments of the technical staff of the College of Agriculture assisted in organizing a course in farm planning to be taught by the entire staff of the College of Agriculture, along with technical experts in the Soil Conservation Service, the School of Forestry of the University, Extension Service, State Experiment Stations, State Forestry Service, Farm Security Administration, and the Agricultural Adjustment Administration.

Two training programs were initiated: one for in-service agricultural workers and one for pre-service teachers of agriculture, The essentials of both plans were the same. In this article the plan for the in-service group is presented in some detail, while only a brief statement is made relative to the course taken by prospective teachers of vocational agriculture.

Training Plan for In-service Groups

General Statement:

The Agricultural Extension Service, the Division of Vocational Agricultural Education, State Department of Education, and the Soil Conservation Service have been requested by the district supervisors of the several soil conservation districts in Georgia to participate in a program of formulating farm programs, with special references to the conservation of soil and water. Since a co-operative plan has been developed which makes it possible for county agents, teachers of vocational agriculture, soil conservation technicians, and others to work together in helping farmers to set up farming programs, it is necessary that workers in these fields have specific training in the abilities necessary to assist at certain places and in certain ways in the formulation of these programs. The points of co-operation are specifically stated in the work plan of these several districts.

One of the specific problems that county agents, teachers of vocational agriculture, and soil conservation technicians have agreed they will help the farmer to solve is that of setting up his program in the light of the human, soil, and other natural resources on the farm. If these workers are to help the farmer in this direction they need specific preparation to do the job.

In light of the above needs, the Agricultural Extension Service, the Division of Vocational Education, State Department of Education, and the Soil Conservation Service have requested the Division of Teacher-Training in Vocational Education, College of Education, to organize, thru the College of Agriculture of the University, a course to develop the needed abilities on the part of the agricultural workers in these three fields. The following training program has been developed.

Training Plan:

The College of Agriculture in co-operation with several institutions and agencies (previously named) is providing technical service for the training course.

The College of Agriculture will provide:

a. Instructors to teach county agents, teachers of agriculture, and soil conservation technicians to understand and interpret basic farm data. Approximately one day will be spent with the trainees in the soil conservation district, or in a specified area, in analyzing and interpreting the social, economic, and farm data on two selected farms. The farm management and soils specialists will give instructions to the workers in dealing with these basic data.

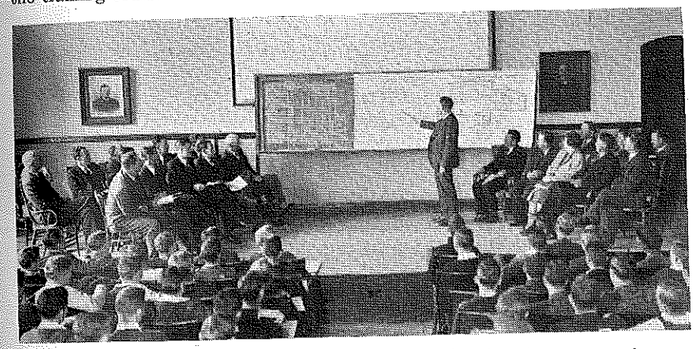
b. A staff of specialists in the several fields of agriculture to participate in a panel and to assist in formulating two farm programs. Approximately one day will be devoted to the planning of each farm. The panel procedure was used and trainees allowed to participate freely in the discussion. The first purpose of the panel is: to bring the workers up to date in all of the fields of agricultural information and to use these data in planning specific farm set-ups. In other words, it is the purpose here to integrate the best information from the fields of agricultural knowledge into the planning of specific farm programs. The second purpose is to demonstrate an educational method that may be used by agricultural workers in co-operation with technicians, local experts, and selected farmers in a community in planning farm programs.

c. Teaching staff.*

Procedure:

The many people involved in the undertaking made it necessary to develop a definite plan of procedure. Below is an example of the procedure for one of the in-service training programs:

1. Representatives of the Agricultural Extension Service, Division of Vocational Education, and the Soil Conservation Service in co-operation with certain county agents, teachers of agriculture and technicians selected the two farms to be studied and re-planned in the training course.



"The entire staff assembled and, thru the use of the panel and conference procedure, re-planned each of the selected farms."

2. The Soil Conservation Service provided comprehensive data on the soil and other farm resources on the selected farms. The Soil Conservation Service made a soils resource map of the farms and provided copies of these maps for all the members of the faculty and trainees in the course. The maps show: (1) soil type, (2) percent of slope, (3) degree of erosion, and (4) land use.

3. Selected teachers of agriculture procured the social and economic data on the selected farms, and the Division of Vocational Education duplicated these surveys, and provided each member of the staff and each trainee with a copy. The surveys provided data about: (1) the family, (2) the home, (3) general farm information, (4) scope, production, and value of enterprises, (5) crop and livestock practices, (6) farm expenses, and (7) financial statement.

4. The members of the staff visited each of the selected farms and, with the soils, economic, and social data in hand, studied the farms first-hand.

5. Copies of the social and economic data, along with the soils map, were placed in the hands of all trainees, and at least one of the two farms selected was visited and studied. Approximately

a. Setting up the type of farming for the farm
b. Setting up the food and feed program for the farm
c. Setting up the livestock program on the farm
d. Setting up the cropping program on the farm
e. Setting up the forestry program on the farm
f. Setting up wildlife program on the farm
g. Setting up rotation system to practice on the farm
h. Setting up water-disposal system for the farm
i. Setting up certain farm practices such as:
   (1) Terracing practice
   (2) Meadow stripping
   (3) Sanitation practices
   (4) Home conveniences
   (5) Others

6. The farm management instructor met with the trainees who were enrolled in the training course, and spent a minimum of one-half day studying the economic and social data gathered from the selected farms.

7. The soils specialist spent a minimum of one-half day with the trainees studying the soils and other natural resources of the selected farms—reading maps, field lay-out, etc.

8. The entire staff assembled and, thru the use of the panel and conference procedure, re-planned each of the selected farms. Approximately one day was devoted to setting up each of the farms. The panel procedure was to take the aspects of farm planning listed below and thru discussions arrive at a solution for each of the problems. The solution arrived at was the result of careful consideration and evaluation of facts and opinions presented by the members of the staff and the farmer. In most instances the group reached a unanimous decision about the several aspects of the farm plan. The following general procedure was used in setting up each of the farms:

9. The soil conservationist spent a minimum of one-half day with the trainees in writing up plans and agreements for the re-planned farms. These agreements are in line with the basic requirements of the work plan for the district.

10. The technical staff of the Soil Conservation Service directed the trainees in a comprehensive study of the soil conservation practices now being carried out on the soil conservation demonstration area. Two days were devoted to a study of these practices.

11. Representatives of the Agricultural Extension Service, of vocational education, and of Soil Conservation Service spent a minimum of one-half day with the trainees in planning methods and techniques for giving instruction to individual farmers and to groups

The training program for prospective teachers was essentially the same as for the in-service groups. The major differences were:

1. The course was designed specifically for prospective teachers of agriculture—the in-service courses were planned for teachers, county agents, and soil technicians.

2. The staff was largely composed of members of the faculty of the College of Agriculture.

3. The group of prospective teachers participated in the planning of only one farm whereas the in-service groups planned from two to four farms.

4. The follow-up work with trainees in new practices such as strip-cropping, was done by members of the college staff, whereas for the in-service group this was done by the Soil Conservation Service.

Results of Training Course

At the completion of the training course in farm planning for pre-service men, 35 seniors went into 18 communities of the state and selected at least two farms on which they procured all of the basic data needed and, with the farmer, re-planned each farm. In addition these 35 men taught approximately 1,400 farmers to re-plan their farms. Of course, these 1,400 farms were not planned in as much detail as were the selected farms in each community. However, the supervising teachers with whom these trainees worked will continue with these 1,400 farmers until their farms are carefully planned.

The training program for the in-service groups has reached approximately three-fifths of the teachers of vocational agriculture in the state along with many county agents and soil technicians. The teachers working with the Soil Conservation Service have made real progress in farm planning. For example, during the first six months following a training course the teachers in the Broad River area planned 132 farms or an average of over five farms per teacher. Each of these farm plans are for five years and involve many changes in farm practice and farm organization. A member of the Soil Conservation Service said: "We have real soil conservation programs going in counties where representatives of all three agencies have participated in the training course."

The members of the college faculty and technical staff expressed themselves as delighted with the opportunity of working with other technicians in planning the farms. Dr. Jarnagin, of the Animal Husbandry Department, said: "I feel that this type of a course is not only excellent training for teachers of agriculture but would be equally valuable for all the seniors in the college of agriculture. This project has brought to our attention the abilities needed by teachers of vocational agriculture, county agents, and soil technicians and will enable all of us to make our courses more functional for these men. It has helped the college staff as much as it has the people enrolled in the course."

In discussing the project with members of the college staff, Dean Chapman said: "I believe this is the beginning of a new procedure that will be most

(Continued on page 158)

Supervised Practice

H. H. GIBSON

Functionalizing Instruction Thru Student Participation in Organized Group Projects

J. A. GUITTEAU, State Supervisor,
Olympia, Washington

ORGANIZED group projects as conducted in the state of Washington for the past 13 years have a two-fold purpose: first, to develop instructional material and, second, to provide participating experiences for all-day and part-time students in vocational agriculture on phases which have been found difficult to both students and teachers.

J. A. Guitteau

This program has been and still is in a state of development. It came about primarily because of the needs of the rank and file of teachers for technical assistance in the solution of agricultural problems which were presented in their communities. The teachers found themselves short of concrete and functional subject matter in some of the enterprises which they were called upon to teach. Textbook and reference material was very general at best, and there was a big gap between the principles and the application thereof to actual farming conditions.

The difficulties in obtaining functioning subject matter are increased by the fact that the state of Washington has widely varied climatic and soil conditions, ranging from six to 140 inches of rainfall, with both sedimentary and alluvial soils, many of which are badly mixed. It's frequently possible to find from 20 to 60 different soil types in a county, with a high degree of variability in productive capacity, which require different tillage and management practices.

In the beginning, most of these projects were handled by the teachers more or less as extra-curricular activities, but little by little teachers found ways and means of getting a greater degree of student participation with the local F. F. A. chapters sponsoring practically all of the variety trial work and most of the fertilizer trials. Co-operating agencies are pleased with this method of introducing new varieties or strains into the community thru such an organization as the Future Farmers of America. Seed given one or two farmers in the community is always apt to create a certain amount of feeling on the part of other farmers since they likewise would like to get in on the ground floor. All, however, are pleased to have the boys take the responsibility of conducting the original trial work and accept it in good spirit from the boys.

The latest step in student participation is to include a complete study of trial plot work in appropriate classes, thereby giving all the students an opportunity to participate in the program, whether F. F. A. members or not. It then becomes an integral part of the instructional program of the department. All teachers who have included their trial work as part of the instructional program, with the responsibility for performance placed on the F. F. A. organization, have reported unusually fine results and are enlarging their student participation program as rapidly as possible. It has been found that when new varieties or strains of crops are introduced into the community it gives students a fine opportunity for seed production projects which are usually quite profitable.

This article covers brief outlines of two projects which have been under way, namely: the soil fertility program, which has been in operation since 1926; and the forage and variety trials since 1933.

Fertilizer Plot Work

In 1926 we were confronted with the problem of insufficient information concerning the fertilizer needs of the various crops being grown in the state. As an experiment 15 trials were put out in western Washington in co-operation with Mr. F. J. Sievers, at that time head of the soils department at the State College of Washington. It was agreed in the beginning that the fertilizers would be furnished by the college and that the soils department would be responsible for the plot layouts. It was also agreed that the plots would be visited once during the growing season and that at the end of each year the teacher would receive a report of the results of the work.

It was later found advisable for the teacher not to accept fertilizers from either materials men or mixers. In the event the fertilizer company wished trials in a given area it could donate materials to the soils department and the teacher of agriculture would do the field work. In this way, local teachers were not responsible for either plot layouts or interpretation of results. All of these policies have been carried out fairly consistently over a period of years and have proved to be very satisfactory.

The general plan of plot work was to select a typical piece of land on which a farmer was growing crops commonly raised in the community and to carry the application of fertilizers from three to five years in succession on the same piece of ground, following whatever rotation the farmer wished. One of the most difficult problems confronting teachers was the selection of the right location for fertilizer trials. After some experience in selection of these various locations it was found wise to present the whole problem to the students in the high-school classes so that they could fully understand the objectives and purposes of the trials, and they were then in a position to participate in the selection of the plots. This procedure resulted in many more opportunities for plot work; and student participation is now regarded as an essential feature of this phase of the program, since it gives boys training in the selection of land for specific purposes.

Several different types of plots are now in common use and may be selected by the teachers and students according to the needs of their program. The first type of plot is designed primarily to demonstrate deficiencies of one or more of the commonly used fertilizer elements. The second is the ratio plot, aiming to discover what proportions of fertilizers will be the most profitable. The third is a rate-of-application test designed to determine how much can be used profitably. The fourth is the manure plot, planned to determine what elements can be used to more advantage in supplementing both a light and heavy application of barnyard manure. Pasture trials, designed to find whether it would be profitable to use fertilizers to bring on earlier pasture or to increase the yield, often in conjunction with irrigation, constitute the fifth type.

That these plots are meeting a need of teachers and students in the state is attested to by the fact that 157 plots have been requested by 107 schools in the state for the coming year. This plot work does not form the basis, by any means, for all the soils instruction given, but it does serve as a splendid activity and "springboard" for stimulating careful observations of fertilizer practices in the local districts and is year by year building up valuable information for instructional purposes.

Forage and Variety Trials

The same climate and soil conditions which have made fertility work so difficult in the state are also controlling factors in the growing of many crops. Little, if any, systematic work has been done on pastures, rotations, or in variety tests to determine which varieties are best adapted to the different soil types and sections of the state. Work has been carried on in this field by the vocational teachers for the past six years. At the present time there are 91 forage plots containing from 25 to 35 varieties of forages, including legumes, which may have possible values for the areas and soils types on which they are being tried out. They also include several varieties and strains which are these growing conditions. There also were 42 variety trials on alfalfa and 27 variety trials on grains during the past season. Seed has been requested for 105 more forage plots to be seeded in the spring of 1940, and for about 65 new variety trials on alfalfa and 35 variety trials on grains.

One of the purposes of the nursery plots is to familiarize teachers and students with the growth characteristics of the various plants so that they will be able to identify them at various stages of growth. Increasing the acreage of legumes is also known to be a step in improving the dairy situation in western Washington. There has been very limited success with the growing of alfalfa in western Washington and several of the teachers have been studying tillage practices, inoculation problems, and variety tests. These problems have been so carefully worked out in one community that 6,000 pounds of alfalfa seed from one source were sold by two seed houses in this town during the past year. We do not have any assurance that the variety of alfalfa which has proved so successful in this locality is equally well adapted to other sections of western Washington, hence we are undertaking an extensive system of variety tests to best adapted.

These plots are laid out in 1/100-acre strips of a field which is seeded to alfalfa by a local farmer, using the same inoculation and same tillage practices, the only difference being in the variety of seed sown. This makes an inexpensive set-up and one which, in from three to five years' time, gives some very valuable data. This variety trial work affords splendid opportunities for trying new varieties or strains in a large number of localities at a minimum cost.

Since all of this plot work is now essentially experimental in nature, there has slowly developed the term "observation plots." All of this plot work is co-operative and requires the skilled guidance of technically trained people. For example, the fertilizer work is now under the guidance of Dr. L. C. Wheeting of the soils department at the state college experiment station. The forage and variety trials are under the guidance of Mr. H. A. Schoth, agronomist of the United States Department of Agriculture, at Corvallis, Oregon, and Dr. A. L. Hofenrichter, director of the Pacific Northwest Soil Conservation Nursery. All of the grain variety trials are under the direction of Mr. Barbee of the state college experiment station.

The Inter-relation of Class Activities and Home Projects*

D. E. WOMER, High School Principal,
Hepburnville, Pennsylvania

TWO methods of approach to the problem of training boys for the vocation of farming have been used side by side during the development stage of publicly supported education in the vocations. The class learning-exercise method was borrowed from the traditional high school while the home project was instituted as an application of the apprentice system carried thru our industrial era from the old guild-system of medieval Europe. Both these learning methods had to be reshaped in order to function in their new applications.

D. E. Womer

Early in the twentieth century the sociologists gained public attention by the cry that our educational system, in effect, was serving to draw worth-while youth from the rural districts to the urban districts. Despite the unreckoned economic factors at work, the cause of this drain of the "backbone" of the nation from the farm to the city was laid at the door of our educational system.

Our departments of public instruction, being in the growth stage of youthful vigor and ready to accept new challenges, began to develop public-school subject matter designed to educate rural boys for the farm. This first step involved only a change in subject matter. The conscientious attempt on the part of educators to solve the problem opened the door to suggestions. The slogan, "We learn to do by doing," seemed to carry with it the solution of the problem. Out of that slogan grew the home project in vocational agriculture.

The project in agricultural education was first used, perhaps, as an interest-securing device. The text-material available lacked qualities that fitted it to adolescent pupils. The project served as a go-between and as an illustrative device by which the instructor could interpret involved principles to the learner. Next the project took the form of the application-step in the learning process. As the project program in vocational agriculture grew however, new subject matter developed from it and the project, in effect, became a distinct and separate unit. The project requirements set up in many of the state programs tend to emphasize the project as a separate unit. A few of our less conservative leaders in the field of agricultural education would build the entire program of vocational instruction upon managerial and manipulative problems that issue from the home project.

After a process of cutting and fitting, of readjusting and redefining, we have come to the problem of judging and selecting material and method which will solve a much more complex problem than was evident when the challenge was made.

The Problem

What relationship should be maintained between subject matter presented in class; or should class subject matter develop from supervised farm practice? At first thought the problem may seem as foolish as the proverbial controversy of priority between the hen and the egg. As we put more thought on the subject, however, we discover, first, that the problem is of fundamental importance in the development of our vocational program in education, and, second, that the problem is affected by a large group of contributing factors.

We may ask first, "Is the purpose of the instruction purely vocational or is it designed to serve also as prevocational or avocational training?" Certainly the relationship to be established between class activity and supervised practice must take into account this fundamental factor. In Pennsylvania this is one of the most important contributing factors of the problem. Only in so far as true vocational training is separated from prevocational and avocational training can a satisfactory relationship between class-activity and supervised practice be set up. A relationship that fits the need of the one certainly cannot fit the need of the other.

Next let us inquire into pupil interest. What is the native ability of the pupil, how nearly mature is he, and what are his chief vocational interests? As soon as we bring the pupil into the situation the problem becomes individualized; for our purpose is to fit training to the pupil—not to fit pupils into a system of training. Our problem grows in complexity as we bring in new considerations. The variety of pupil home environment cannot be ignored. If we are to fit education to the pupil our system must not shut out an interested pupil because he lacks farming background or even because he does not now live on a farm. Then, too, home facilities for supervised practice present the greatest variability. And finally the possibility of covering all the needs of the pupil with supervised practice as a basis from which all class activities are to be derived seems to be a limiting factor which is bound to be operative even under the best possible combination of all the other factors. Of the minimum 360 periods of school time allotted to vocational agriculture, at best less than one fourth can be utilized outside the school building. Thus 270 periods remain for school class-activity in the school building.

Definition of Terms

In order that we may think together in terms which have the same meaning for all, let us proceed to the definition of a few key terms to be used in this discussion. First, let us give to the term "project" a composite definition which will include the emphasis stressed by several of our outstanding educators. We may then define the *project* as wholehearted, problematic, purposeful, self-directed, consciously-planned activity carried to completion in a natural setting. When the project is thus set up with an educative purpose we call it the project method. In vocational agriculture we further define the *home project* as a pupil-owned farm enterprise which shall have all the other qualities men-

entered into by a group of learners for the purpose of acquiring new responses or of modifying old ones. The class activity may be built around the project method without necessarily including the home project. *Supplementary* farm-practice shall be understood to include learning activities in farm enterprises entered into by the pupil to gain manipulative ability without consideration of enterprise-analysis, ownership, or completion. *Supervised farm-practice* shall be understood to include all home-project work and supplementary farms practice which is entered into by pupils under the supervision of the teacher.

The Principle Developed

Vocational education implies a prognosis of the future activities of the learner. Pupil development in the other six *cardinal* aims of education can be conceived as progressing satisfactorily simply thru the process of meeting today's problems each day. A successful reaction today is the best preparation for a successful response tomorrow. One entire public-school program has been in the process of redefinition into terms of present pupil-interests. During the past 15 years text books in every elementary subject have been reorganized upon the basis of pupil-interest and normal pupil-activity. Vocational education, however, must be patterned after adult-activity. The adult enterprise must be taken as the stimulus to secure the desired response. Thus, in order to satisfy the psychological learning laws of readiness, effect, and exercise we find it necessary to fit the learner into the nearest possible approach to the adult-activity in which responses are to be gained. This fundamental feature of vocational education is perhaps the strongest reason set forth by some of our foremost educators for carrying vocational education over into the adult period of the learner's progress.

difference in vocational education between industrial trades and agriculture. Among the industrial trades manipulative skill can easily be made the center of all development. In agriculture we find managerial problems of much greater importance. The related scientific principles, furthermore, play such a fundamental role in the vocation of agriculture that there can be no real comparison between the training processes for industrial trades and for agriculture.

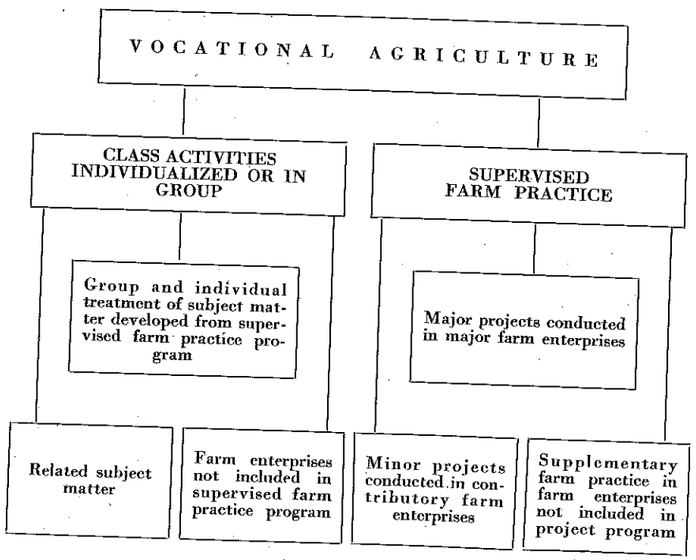
Again we find a wide difference between the two types of vocation when we consider the scales of proficiency by which individuals engaged in the respective vocations measure themselves. As soon as the industrial tradesman passes from the manipulative stage to the managerial or technical research stage he ceases to be a tradesman and is now classed as an engineer. In agriculture there is no such separation. The two types of activity are so intermixed that no such division is feasible. The farmer is his own manager, cost accountant, repairman, or ditch-digger as occasion demands. The more technical activities in the agricultural field are less closely associated with manipulative skills than those in the industrial field. The problem of organizing training activities in agriculture, therefore, is by far the more complex.

The Revised Plan

An effective plan of vocational education in agriculture must set up, first, a procedure which will separate prevocational instruction from that which is truly vocational. Without such a separation objectives are ill-defined and achievement standards are impossible. Vocational instruction can be effective only with pupils whose interests are definitely centered upon the vocation. However important prevocational and avocational instruction may be, they most certainly must be separated for best results.

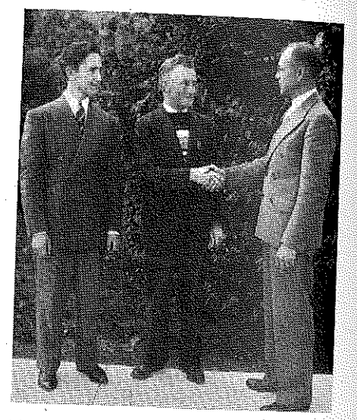
Our next step requires a correlated *class-activity* `*home-project* organization which will make use of our modern developments in individualized instruction in the light of careful diagnosis of individual pupil interest, pupil home environment, pupil practice facilities, and pupil vocational needs. Specific objectives and achievement standards have become recognized as essential factors in any educational program and especially essential in education for the vocations. Individual instruction methods make possible more specific attention to pupil individuality and reduce wasted effort expended upon pupils who fail to respond in group activities. The accompanying diagrammatic figure is designed to illustrate a logical relationship that should exist between the various correlated elements of the vocational program for agriculture.

*This article is based upon a term paper presented by the author in a graduate seminar at the Pennsylvania State College.



Diagrammatic balance in relationship among instruction elements in a program for vocational agriculture

Nu Chapter, A. T. A., Rewards Scholarship



Nu Chapter of Alpha Tau Alpha, University of Missouri, is trustee for the $40 F. F. A. scholarship award provided annually to the outstanding high-school senior Future Farmer who enters the University of Missouri. This year the award was won by Carroll Clithero of Middletown, Missouri. In the picture he has just received the award from Uel Puitt, left, president of A. T. A., and is being congratulated on his success by Sherman Dickinson, professor of agricultural education.

Takes New Position

Dr. E. L. Austin, formerly head of the department of education at Michigan State College, has recently accepted a position at Rhode Island State College in the department of education as teacher-trainer in agriculture. Dr. Austin has had experience as a teacher of vocational agriculture in Indiana and as state 4-H Club leader in the same state. He was at Michigan State College for 10 years. Since leaving Michigan State last April Dr. Austin had been in Washington, D. C., where he has written a book, in co-operation with the United States Department of Agriculture, on methods of extension teaching.

Educational Values in a Market Stock Show

THOMAS H. KERREY, Supervising Teacher in Agriculture,
Okemos, Michigan

DURING the past four years Michigan has provided for boys enrolled in vocational agriculture an opportunity to participate in a learning process which leads to the efficient production of livestock on a commercial scale.

T. H. Kerrey

Professors of the animal husbandry department at Michigan State College have co-operated with the teachers of vocational agriculture each year by writing articles for *The Michigan Future Farmer* in which they outlined for the pupils the best procedure in the breeding, buying, and production of the different kinds of livestock. Teachers as well as pupils were guided by these articles in developing the livestock part of their supervised farm practice program.

This year, as in the past, the work was climaxed by the annual Michigan F. F. A. Fat Stock Show and Marketing School held at Marshall, Michigan, on August 19, followed by the shipping of the stock to Buffalo where it was sold thru the regular marketing channels. It enabled 130 boys from 30 schools to market 190 lambs, 106 hogs, and 55 steers.

The livestock produced by the pupils was transported by the local F. F. A. chapters or individual members to the fair grounds on August 19th, the day of the show. At this time the students participated in a grading contest in which they placed the animals according to market grades.

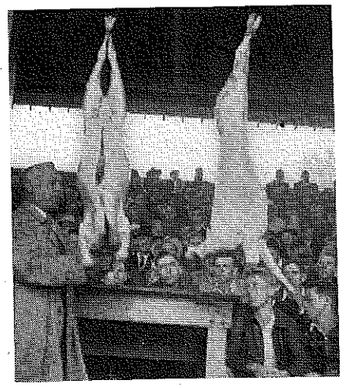
At 10 o'clock Professor George Brown of the animal husbandry department of Michigan State College gave a demonstration of the dressing of mutton for home consumption. He chose one choice lamb and one common lamb for his work. This gave J. C. ("Doc") Roberts of the Buffalo Co-operative Livestock Association an opportunity to discuss with those present the differences in the two carcasses. He pointed out the little difference in the cost of production, the wider difference in the market value, and the reasons for such differences in value.

Prof. Verne Freeman of the animal husbandry department discussed the economical production of pork, and Mr. E. L. Benton of the animal husbandry extension service spoke on the problems involved in the production of high-grade lambs for market and their solutions. This session was concluded by Professor Brown, who held a post-mortem on the digestive system of the sheep, showing in the common lamb the presence of internal parasites. He discussed their effect on production and outlined the preventive method.

At noon free lunch was served to all F. F. A. members and their instructors by the Marshall Chamber of Commerce.

After lunch all animals were graded and marked with different-colored chalk to indicate the grades. The lambs were graded as choice and prime, good, medium, or common. There were three classes: a pen of three by one F. F. A. member, a pen of 10 by one or more F. F. A. members in the same chapter, and a pen of 24 by two or more F. F. A. members in the same chapter. The hogs were graded as choice, good, or common and there were two classes: pen of one or pen of three. The steers were graded as prime, good, medium, or common and there were two classes: pen of one and pen of two.

During the grading the students were with their own animals and the placing or each animal was discussed by the judge.



"Doc" Roberts discusses the differences in the two carcasses

After the grading was completed, the animals were loaded and hauled to the freight cars. Mr. O. B. Price, agricultural agent for the New York Central Railroad, made arrangements for cars, kept the weight records, and directed the cars to Buffalo.

Experience in the grading of market lambs

dents to accompany their stock to Buffalo and follow it thru the regular marketing channels. On previous similar occasions groups have made the trip to Buffalo. On such trips Sunday has been spent in sightseeing at Niagara and completing the trip to Buffalo, New York. Monday morning is devoted to the actual selling of the livestock on the market and to visiting packing plants and other points of interest. The schedule called for leaving Buffalo, New York, Monday afternoon in time to arrive in Marshall, Michigan, late Monday night. The cost of this trip included transportation, meals, and hotel accommodations ($12). This year most of the pupils who went to Buffalo went by automobile and planned their own trip.

Observing the grading of steers

The premiums given in this show are not prizes so much as awards to enable the students to accompany their livestock to market, thereby learning from experience the channels thru which livestock is marketed.

In so far as it is possible to draw conclusions from the past four years of experience with this plan for improvement of supervised farm practice, it seems evident that the following benefits are being realized:

1. A spirit of member and chapter co-operation is developing in place of the old competitive spirit.
2. More approved practices in the production of livestock are being adopted by the students.
3. A true-to-life experience of livestock production prevails, which discourages spending a long period developing one animal at the expense of considerably more time than a producer could ever use in the commercial production of livestock.
4. The students are securing animals for feeding that are in line with profitable production practices.
5. The students are getting a true-to-life experience in regard to income from such enterprises. Their experiences are not "colored" by false standards of income resulting from exorbitant prizes and prices paid for a few winning animals, nor are they discouraged by project records that show too large a capital outlay for an animal to begin with, plus exorbitant charges against the enterprise for labor spent on the animal.
6. More students are becoming efficient producers and marketers of livestock.
7. Ownership by the student and a supervised farm practice program which is helping more young men toward establishment in farming are, in the last analysis, the most encouraging results of this program.

V. G. MARTIN **Farmer Classes** J. B. McCLELLAND

Fundamentals in Formulating a Part-Time Program

WATSON ARMSTRONG, Teacher Education,
Lexington, Kentucky

Watson Armstrong

INITIATING and developing an effective program of instruction for out-of-schoo' young men calls for careful study, intelligent planning, frequent inventory of progress made, and further planning to meet problems as they present themselves. As with other phases of instruction in vocational agriculture, planning and building an appropriate course of instruction for the out-of-school group is largely the responsibility of the local teacher of agriculture. The needs of the group to be taught should be the teacher's chief guide in working out the course, and should carry more weight in determining what is to be taught than all other issues combined.

Teacher Should Consult Many Sources

If the teacher is to set up a course of instruction which will meet the needs of the out-of-school group, he must have a thoro understanding of these needs. Determining and analyzing the needs of prospective part-time students suggests the advisability of having a rather definite plan for collecting, tabulating, and interpreting information concerning the entire group, as well as each individual within the group. The teacher must not fail to get counsel and advice from a number of individuals and to consult all possible sources of reliable information before finally deciding what the course will include.

During the summer of 1939, 24 teachers of vocational agriculture in Kentucky met for a series of meetings over a 15-day period; and by means of discussions and committee reports worked out a 60-page publication on part-time work. Some of the suggestions and recommendations made on the twelve phases of part-time work considered by this group follow:

1. Deciding Whether to Provide Systematic Instruction for Out-of-School Young Men

Any community that needs all-day instruction in vocational agriculture needs part-time instruction. Unless part-time instruction is provided, there will be a gap between the systematic instruction for all-day pupils and the evening classes for adult farmers. Fact-finding surveys of the needs in the community should be made and analyzed.

2. Planning Promotion for the Part-time Program

Personal visitation surpasses all other methods of "selling" the idea to prospective part-time students. The assistance of key young men, all-day pupils, rural teachers, and others often proves helpful in explaining the course and recruiting the group. School and other local organizations, newsletters, the local press, the telephone, the mails, and other methods of acquainting young men with the course may be successfully used.

3. Enrolling and Planning for the Class

The success of a part-time class depends in no small degree upon the type of student enrolled and upon how much the teacher knows about his needs, interests, attitudes, and opportunities. A simple survey, carefully planned and executed, and intelligently interpreted, will be an invaluable guide to the teacher in determining whom to enroll, what to include in the course, and how best to work with the young men as they progress toward establishment in farming. The time, place, and frequency of meetings are important factors to be decided, and the wishes of the young men should be considered before decisions are made. Adequate equipment and appropriate teaching materials may greatly influence the success of the course. Recreational activities and other features are means of creating and holding interest.

4. Organizing the Group

An organization for the out-of-school young men may do much to assure the success of the course. The initiative in organizing should come from the group, and the responsibility of formulating and guiding the work of the organization should rest upon the young men. Possible benefits from the organization outweigh difficulties, provided members accept it as their own and agree to assume resulting responsibilities. Formulating and adopting a constitution, setting up and carrying forward an appropriate program of activities, and making the organization a vital part of the program are important factors on which the teacher must be prepared to offer sound advice.

5. Determining the Opportunities for Placement in Farming

The number of young men receiving training in vocational agriculture is insufficient to provide the trained farmers needed. The teacher must be thoroly familiar with the farming opportunities available. This suggests the need for a rather complete survey of the situation in the community. The teacher must also have information concerning the abilities, assets, and character of the young men he expects to place in farming. He should be in touch with any agencies that might assist him in placing young men. The teacher must realize that it is his responsibility to assist the young men in his part-time classes to find situations which may lead to permanent establishment in farming.

6. Planning the Comprehensive Program

If a teacher is to assist young men to become permanently and profitably established in farming, he must look further than the series of 15 to 20 meetings devoted to a single enterprise or subject. The part-time program must attempt to meet the needs of the young men. It must take the young men as it finds them and provide a program which will follow them until they are established on the most satisfactory basis possible. Any program which attempts to do this must be a comprehensive, long-time program and must provide for meeting conditions and problems as they present themselves.

7. Determining Course or Courses to Be Taught, and Selecting Teaching Content

Any course or courses offered and the content selected for out-of-school young men should contribute toward attainment of the major objectives of vocational agriculture. The needs, interests, and abilities of the prospective pupils, the equipment and facilities at hand, and the training of the teacher are factors to be considered in determining the content of the course. Any course should probably contain one major enterprise or subject each year, and should provide for related subjects. Social and recreational activities must not be overlooked.

8. Determining Teaching Procedure

The instructional procedure of part-time teaching should receive careful consideration because of the varied educational experiences, attitudes, and interests of the young men to be taught. The method of teaching a part-time class is quite similar to good methods used in the all-day class. The conference, discussion, or problem-solving procedure is appropriate, since it gives opportunity for individual expression and stimulates constructive thinking. Such use should be made of visual aids, supervised study, field trips, demonstrations, and other devices as seem advisable to meet the needs of the group.

9. Planning and Supervising Individual Farming Programs

The supervised practice program must be central in the course for out-of-school

ject implies provision for practice in situations as nearly like those in real life as possible. Part-time students should be encouraged to plan a long-time comprehensive farm practice program to be carried forward under supervision of the teacher of agriculture. Altho out-of-school young men may not wish to write as detailed plans as may be expected of all-day pupils, they should be encouraged to write simple plans. Supervision of the farm practice programs should be continual.

10. Keeping and Summarizing Records

The young men should keep simple records of the farm practice carried on. The teacher should keep records on the young men, their home situations, their farm practice programs, and the possible advantages or handicaps which may have a bearing upon their becoming satisfactorily established in farming occupations.

11. Checking and Interpreting Results and Planning for the Future

If maximum results are to be obtained from part-time work, the teacher must keep an accurate progress report, showing what has been accomplished in preparing young men for farming. Some standards or score card for the evaluation of young men and their farming situations may help the teacher to place them in positions for which they are best adapted. The teacher needs a convenient method of checking the young men according to the progress which they may be making toward establishment in farming.

12. Keeping the Public Informed

The public cannot be expected to support a program it does not understand. Much support and understanding of part-time work may be gained thru an appropriate educational program which will inform parents, businessmen, and others of the aims and purposes of the part-time program. Local newspapers, magazines, talks before luncheon clubs, fairs, entertainments, the radio, and other devices may be used to inform the public of the progress of the part-time program for out-of-school young men.

Book Reviews

Personal Account Book for Future Farmers of America, by H. T. Hall, supervisor of agricultural education, Iowa, published by Babcock Brothers, New Hampton, Iowa, paper back, 39 pp.: single copies 15 cents, postpaid; 20 or more copies, 10 cents, plus postage and 2 percent sales tax. The booklet is designed to assist: (1) instructors of vocational agriculture in teaching thrift, and (2) individual F.F.A. members in becoming established in farming.—A.P.D.

A Manual on Sharpening Hand Woodworking Tools, by Coggin, Armstrong, and Giles, 46 pp., paper cover, illustrated, published by Interstate Printing Company, Danville, Illinois, price 29c. An excellent compilation of factual material with techniques involved.—A. P. D.

Conducting Young Farmer and Adult Farmer Classes Yields Dividends

O. L. Young, Teacher,*
West Chester, Ohio

O. L. Young

Mr. Young speaks from experience. He has taught 34 different part-time and evening courses, four of which were for women. Who can beat this record?

THE first benefit to the program in agricultural education which comes from conducting young farmer and adult farmer courses is *publicity*. This will begin before the course starts and will continue after it closes. It will be carried on by the newspapers, if the teacher keeps them informed, by the people enrolled in the courses, and by others in the community. Adult courses lend themselves well to publicity because in many cases they are something new; and anything new is news. We usually associate school with children but here we have adults going to school.

The teacher who gives courses for out-of-school groups is performing a *service*; and service is usually considered as the cornerstone of success in any undertaking. Members of these courses as well as others in the community feel that this is something that the teacher does not have to do and that he, therefore, is interested in their welfare.

Stepping Up the Teacher's Efficiency

The teacher who conducts farmer classes is in *close contact* with many groups in the community. He is reaching many more homes thru adult instruction than he would reach otherwise. Furthermore, members are coming to the teacher for information and help. Thus, he can reach more persons than when he depends upon individual service alone for adults. Instead of teaching only high-school students, the teacher is now providing organized instruction for young farmers, adult farmers, and farmers' wives.

The teacher who conducts part-time or evening courses *uses his time more efficiently*. Those who attend his courses learn to cull hens, adjust a mower, treat sheep, and do many other things which the teacher is frequently asked to do. Since individual personal service is time-consuming, any lessening of it thru group instruction will give additional time for other activities in the community.

Enrollment in all-day classes will be increased. Everyone has heard the question: "Why should the boy who has been reared on the farm study agriculture?" Men enrolled in adult courses have, in practically all cases, been reared on the farm, have operated a farm all their lives, and are still farming; and yet they feel that they can still learn something about agriculture. Therefore, high-school boys conclude that they can benefit from an agriculture course in high school.

Teaching adults *improves* the *teaching ability* of the instructor. Adults do not have to come to classes as high-school students do. The lessons must be well organized as to interest and sequence. The teacher must also have facts available so that he can present them effectively, and so that he can answer questions on the subject with facility. Unless his lessons are planned well enough to provide these essentials, the members stop coming. Improvement in these respects, of course, improves all-day teaching also.

The Community Benefits

Those attending adult courses obtain *new facts and ideas* which are related to farming. Since the students themselves are farming they can use these new ideas. Every one is observed by his neighbor; so these new procedures spread to other farmers.

These courses give adults an opportunity to become familiar with knowledge which was missed in high school. Some of this material was missed because students quit school at an early age. Other students were exposed to certain courses but were not interested in them at the time.

Community improvement is another benefit from part-time and evening courses. As a result of these courses, bull rings, cow testing associations, and similar groups may be formed which will be of perpetual benefit to the community. Thru the conference procedure, students learn to work together in solving problems of mutual interest.

Social benefits are obtained from adult courses. Before and after the instructional meetings the members meet together informally. There are business meetings, especially with the young group, in which they secure training in conducting business activities. Banquets are often held at the close of the courses. Some groups have a recreational period after the instructional meeting.

Courses which are held in co-operation with the home economics department provide an excellent opportunity for the men and women to meet together occasionally for social activities and to discuss community improvement programs.

The Teacher Learns, Too

More *respect* from high-school students and from the community naturally follows adult teaching. Any normal boy will have more respect for the ability of a person who can teach his dad something new. Adults themselves respect a good teacher.

Another benefit that the teacher should receive is *confidence in himself*. Appearing as a teacher before a group of farmers who have farmed all their lives is not easy for the beginning teacher; but it can be done by any teacher who

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L. B. POLLOM

Farm Mechanics

In-Service Improvement of Teachers of Farm Shop in Vermont

CARLTON E. WRIGHT, Instructor in Farm Mechanics,
University of Vermont

C. E. Wright

THE teaching of farm shop is a vital part of the vocational agriculture program and requires that a teacher understand the objectives of the work, as well as the technical information. He must possess the ability to do as well as to teach. The specific problem we have in Vermont is to develop such ability and understanding within the group of employed teachers.

On September 1, 1937, there were 33 teachers of agriculture in Vermont.[1] This figure is exclusive of the Vermont School of Agriculture at Randolph Center. Of this number, 23 have been graduated from the University of Vermont. When the group as a whole is considered in this article, the basic assumption is that those men trained out of the state have had training at least equal to the training given at the University of Vermont, and for in-service training purposes, no more.

Prior to September, 1937, no courses were offered for the specific training of teachers in farm shop. A full-year course (three hours each semester) was offered to and required of all seniors in the college of agriculture. A rather theoretical knowledge was obtained in gas engine operation and in electrical work. A practical unit in forge work was offered, but no specific stress was placed on the teaching of the work.[2] The men had an opportunity to secure additional work during the summer session on three occasions in farm shop. Several men took advantage of this opportunity for additional farm shop training and experiences.

It can be seen that the actual instruction in methods of teaching farm shop, together with the opportunity to acquire skills, was limited. Most men have felt the need for additional work in order to equip themselves more adequately, hence the seed for an in-service training program in farm shop has fallen on fertile soil.

THE objectives for such a program were both immediate and long-time in nature. Upon the establishment of the program inaugurated last year, the following 12 objectives were set up:

1. To acquaint the teachers with the policy of the newly established state program in farm shop.
2. To acquaint them with the in-service training program in farm shop.
3. To establish in their minds a faith in the farm-shop program in the state.
4. To create a new outlook on the "farm" part of farm-shop work.
5. To bring before the men new ideas in course planning.
6. To improve the course content in farm shop in all departments.
7. To improve and expand the enterprises taught in farm shop previously.
8. To bring before the men approved and recommended suggestions on equipment in line with the state program.
9. To acquaint teachers with new equipment and the use of it.
10. To improve teaching technique in farm shop.
11. To develop new farm-shop skills.
12. To secure adequate answers to current teaching problems in farm shop.

The methods used in reaching the 12 objectives were incorporated in a series of meetings held in the winter of 1938. Meetings were held Saturdays from 10 A. M. to 1:00 P. M., March 5 to April 23, 1938, inclusive. The state was divided into four geographical districts, two meetings being scheduled in each area for each of the four groups of teachers.[3]

The underlying purpose of both the first and second series of meetings and for the whole in-service program was to lay the foundations for a long-time farm-shop program in each department. The programs of the two series of meetings are as follows:

I. *Farm Shop Equipment.*
1. Discussion.
   a. Purposes of the meetings.
   b. The place of farm shop in the vocational agriculture program.
   c. Summary of present-day thinking in farm shop.
   d. Group conference on the setting up of minimum standards for vocational agriculture departments.
   e. Standards for agriculture rooms and shops, with regard to arrangement, lights, furniture, and equipment.
   f. The place of power equipment in the farm-shop program.
2. Demonstration and display.
   a. Display and discussion of various farm-shop books, bulletins, and other publications, with stress on the newer materials available.
   b. Use of the Roehl type grinder. Demonstration on jointing and gumming a circular saw, sharpening mower sections, etc.
   c. Demonstration to show the use of the chain drill and its application, particularly to smaller departments where the budget is extremely limited, and to show the advantages of its use in the repair of field machinery.

II. *Course of Study.* A tentative course of study was worked out in the state office.[4] The program of the meetings centered around this course of study and was developed as follows:
1. Discussion of suggested course of study.
2. Arrangement and management of the shop.
3. Method of organizing and conducting a department's farm-shop program.
   a. A discussion of the time and duration of the shop program for the local department.
   b. Method for various local departments analyzed and discussed.
4. Presentation and discussion of job sheets.
   a. Distribution of several new desirable job sheets.
   b. Distribution of original job sheets, prepared in quantity by each man present, as pre-arranged, thus supplying everyone with approximately twelve new and original sheets.
5. A short discussion of the place of farm shop in the present part-time and evening-class program[5] resulted in the following three requisites for a department using farm-shop work as a theme for such a program:
   a. The *teacher* must know that branch of shop work thoroly and be able to do it.
   b. The *department* must be well equipped.
   c. The *group* in the class must show a need and a desire for the work.
6. A demonstration and a short discussion of methods in teaching farm electricity.

The first-year program indicated co-operation by the teachers as follows:
   a. In the first series of four meetings, the attendance was 85 percent of the vocational agriculture teachers.
   b. In the second series of four meetings, the attendance was 88 percent.
   c. Only one man failed to attend at least one meeting.
   d. Only seven men in the state, including the one mentioned above, failed to attend *both* meetings.

Thus, 97 percent of the men attended one or both of the meetings, indicating that the first-year program was both desirable and successful. It was observed that the men needed and wanted more information and instruction in farm-shop work. They desired actual *technical* teaching material and were eager to acquire the necessary skills thru participation themselves. These suggestions were considered and embodied in the 1938-1939 series of meetings. The group also felt that it was more convenient if the meetings were held in one school in each area, and in the evening rather than on Saturday.

TO MAKE the program increasingly meaningful and educational, as well as timely and interesting, a course was organized on the repair of farm machinery. Further experimentation was carried on with reference to location and materials, as will be seen by the organization herewith presented. The same four districts of the state were used; but instead of two meetings in each area, three meetings were held, making a total of 12 meetings. These meetings were open also to the wives of the men. Dinner was served at 6 p. m., after which the ladies were entertained while the men worked in the shop. The meeting closed at 10 p. m. In order to secure continuity, the meetings were held in three consecutive weeks in each area, and each of the three meetings were held on the same evening of the week, February 14 to March 24, 1939, inclusive.

In one area a well-equipped farmer's shop was the center for the three meetings; in another area (because of the distances traveled by the men) each meeting was held in a different school. In the other two areas, the meetings centered in a school shop in a town located centrally in the district.[6]

The plan of the course was to take a piece of worn farm machinery (the two-horse mower was used in 1939), to have the group study the condition, adjustment, and extent of repair; to dismantle it enough to clean it thoroly; and to check the parts needing replacement at the first meeting. The second meeting was devoted to the replacing of worn parts and to cleaning and reassembling. The third meeting was devoted to the completion of the reassembling and to the complete adjustment of the machine. Time was spent at this meeting in discussing methods as they applied to teaching the work to vocational pupils in all-day, part-time, and evening classes. A discussion was also held on the repair of implements other than the mower.

The exact nature of the work may well be understood by analyzing the jobs done on a McCormick-Deering No. 6. The following jobs were performed:

1. Examination of machine for worn parts
2. Checking alignment and register
3. Removal of section bar
4. Replacement of sections
5. Replacement and repair of guards
6. Replacement of ledger plates
7. Replacement of wear plates
8. Replacement of slipper on outer shoe
9. Tightening of all connecting bolts
10. Alignment of cutter bar
11. Registering of knives
12. Adjustment of knife clips
13. Removal and replacement of crankshaft bushings
14. Removal and replacement of pitman bushings
15. Installation of washers to take up play in wheels and make gears mesh more deeply
16. Tightening of the lifting mechanism
17. Replacement of all bearings in cap on counter shaft.

The painting had to be done by the farmer, since time did not permit this operation.

The specific results obtained by these meetings may be listed as follows:

1. A new and broader idea of the practical nature of the farm shop in the agriculture department.
2. A new and interesting enterprise for most departments.
3. A method of getting much good shop experience for the boys at low cost to the department.
4. Actual knowledge and skill gained by the teachers in the state.
5. Realization, on the part of the teachers, of the simplicity of [illegible] the jobs.
6. A knowledge of the jobs which are impractical to attempt.
7. A general feeling of confidence, replacing a skeptical attitude on the part of the teachers.
8. Interest and satisfaction on the part of the men. The attendance, as shown by the following figures, would tend to indicate this:

First meeting.....80% attendance
Second meeting.....75% attendance
Third meeting.....85% attendance

This means that 80 percent of the men attended the series of three meetings. Only two men in the state failed to attend at least one meeting, and two thirds of the whole group attended all three meetings. Requests for another series of evening meetings next year made it evident that the men considered the 1938-1939 program interesting and valuable.

Two years of participation in an in-service training program for Vermont agriculture teachers have shown that:

1. The program is desirable from an educational and professional standpoint, and satisfactory, as measured by increased interest and improved content of course and method of teaching, as already observed.
3. The program is important to the men, as shown by their attendance and by their requests for next year.

These three points are enough to recommend the plan and to give it necessary stimuli to continue. Because of the experience already gained, next year's program can and will be larger in scope and better in content. It is the teachers who make the work valuable, and it is the same teachers who are enthusiastic about the programs.

1. On September 1, 1938, this number had increased to 38.
2. The present program includes a three-hour course, "Farm Mechanics."
3. The 1938 meetings were held in Chester, Derby, Essex Junction, Hardwick, Hinesburg, Manchester, and Morrisville.
4. "A Study of the Needs for Training in Farm Shop in High-School Departments of Vocational Agriculture in the State of Vermont," the basis of this course of study, was worked out by the writer at Cornell University.
5. The part-time and evening program in Vermont was launched during 1937–1938.
6. Meetings were held in Chester, Enosburg Falls, Hinesburg, North Bennington, Poultney, and St. Johnsbury.

Boy-Centered Farm-Shop Teaching

BERT R. NOLIN, Instructor
Knoxville, Iowa

THE first objective in any shop course should be to produce real broad-minded men with keen judgment and thinking ability. Ask any parent if it is more important to train his boy to be a skilled carpenter or to turn out a real man demanded in any profession. There is no doubt about the answer.

R. M. Hughes, former president of Iowa State College, in a commencement address once said: "We are spending too much money in providing excellent training for many men and women who are too inadequately developed in one or another phase of their character to use effectively the education provided."

Too many people believe that in the school shop we are working with wood, metal, and tools and should turn out masterpieces made from them. In reality, we are not; but are working with boys, their dreams, ideals, habits, and ambitions. It is from these materials we are trying to make masterpieces.

We often spend our time trying to teach a boy to saw a board straight and file a saw correctly and at the same time fail to teach and stress important life habits. We allow tools to be left scattered. Projects are often allowed to be taken from the shop that do not represent the best work of which the boy is capable.

The school provides a wonderful opportunity for co-operation in work (or play). Often two boys working together will double the production of one, while in other instances they might decrease the production. This affords a chance to encourage self-discipline and teach the boys to be industrious.

It may be that within this course some boy will find a life-time hobby. For most boys their schooling will end with graduation from high school. The shop is the best and quite often the only chance to give any appreciative work. I know there is the pressure from the community demanding that the work be practical, and it should be. If training is given at home it is most likely to be in the use of common tools and how to do common tasks. But in very few cases will it be appreciative work suitable for a hobby or leisure time. The shop course should provide some work in artistic design, for as the country matures we find ourselves with more time for leisure and avocations.

The shop class should furnish a variety of experiences that will appeal to individual interests and differences. Here is one of the strongest appeals to the boy. He has been longing for a chance to make something and develop his own ideas. He is not assigned to cover a certain chapter each day, but can create with his own hands. We may standardize our tests and our courses, but we cannot standardize our students.

The shop student can and should be given a chance to do creative thinking and develop his own thoughts into creative work. But by the use of instruction sheets, and the teacher's doing the planning and difficult tasks, we can develop the boy into little more than a part of a machine.

Altho we are interested in teaching the boy to do a high type of work we must remember he is still in the process of acquiring skill. If he were already skilled there would be no object in teaching him. He should realize that creative thinking is man's highest attainment, and should be encouraged to make his own plans or attempt to improve on another person's idea if it is used. A boy takes pride in his own creations and learns to create only by creating. The value of self-made projects should be played up by showing and exhibiting them to visitors and friends. Notice the pride a boy takes in his own creation and the interest the others have in its development. Yet the boy should not feel he has reached perfection; he should develop a tendency to criticize and improve his own work. He should be impressed with the idea

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Studies and Investigations

C. S. ANDERSON

Contrasting Interests of Farmers and Non-Farmers

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Freeburg, Illinois, and
THEO. F. LENTZ, Associate Professor of Education,
Washington University, St. Louis, Missouri

IF SOMEONE were to write a textbook on agricultural psychology such a treatise might well contain a section on animal psychology. Anyone who has ever struggled to get Dobbin's tail over the line, or tried to drive a pig eastward and succeeded by pretending to drive him westward, will realize that such a section of the text book cannot be done from the ivory tower of the philosopher on the one hand, nor receive adequate treatment from one who specializes in running rats thru mazes in the basement, on the other hand.

The writers of this article refuse to start at the bottom with pigs, rats, cats, and colts. They are more concerned with the destiny of nations wrapped up in the psychology of social and emotional mazes as run by the farmer himself.

The Problem

We believe that it is not enough to raise the question as to who can and who cannot farm. The larger humanism of our day brings us to the question of who will and who will not farm and why. More must be known about the motivations of those who are really living off the land and on the land.

Assuming that character, as well as ability, accounts for success at farming, it is pertinent to ask what this character is; what amounts of what aspects of character account for success and satisfaction at farming. Knowing these, we should some day find ourselves better able to guide future citizens into becoming future farmers and non-farmers, as well as to guide better future farmers into those appreciations and attitudes which are conducive to successful rural living.

Nature of the Study

As a beginning for the study of farm character, the writers are using the contrast technique (contrasting farmers and non-farmers). The tool used in the study was an original test which included 60 "Yes-No" items and 40 "Like-Indifferent-Dislike" items. The Farmer's Interest Test, as it was called, was given with the help of interested agriculture teachers and others to two major groups, people who were apparently much interested in farm life and well adjusted to it, and people who were uninterested in farming as a life occupation or definite misfits in farm life. Each of the two major groups was subdivided into adults, bright students, and dull students. Since very little difference was found between the sub-groups, this discussion will be confined entirely to the differences between people interested in farming as an occupation and those not interested in it.

Farmers Contrasted With Non-Farmers

Thirteen percent of those interested in farming reported the belief that the city child has more advantages than the country child. Fifty percent of the city-minded folks indicated a judgment that the city child had more advantages than the country child. Ninety-six percent of those interested in farming appreciated the fact that farming is a business and should be run as such. Only 60 percent of the people not interested reported that they felt a farmer who kept records on his farm would be in a better position to manage his farm wisely.

Discussions about farm problems seemed to interest the majority of people. Somewhat astounding, however, was the fact that nine percent of those interested in farming did not like to talk about farm problems with their friends. It was not surprising to find that 40 percent of the people not interested in farming reported that they did not enjoy discussing problems relating to agriculture.

Those interested in farming apparently had the greatest amount of contentment, with only 23.7 percent of them wishing for a more exciting life. Slightly more than 52 percent of the non-farming group would choose a more exciting life than they now lead if they had a chance. This is a significant factor in this restless age. It seems to indicate that farm life is more satisfying, considered as a whole. On the other hand, this might be due to a selection of individuals. For example, a person might have to be satisfied with a quiet life before considering farming as an occupation. Since a large number of adventuresome people are finding satisfaction on the farm, solving the huge number of problems which arise in the production of crops and livestock, the first explanation seems more probable.

People not interested in the farm like to watch a storm 29 percent better than the farmer interest group. Farmers fear the weather because it is so often the deciding factor between the success or failure of a crop being produced. Because of curiosity, city people like to watch a storm from their comparatively safe place.

Twenty-eight percent more farmers than city-minded people indicated a liking for walking over the fields on Sunday morning to see how everything is growing. This is a pleasure that few city people appreciate because of other activities and because many of them have never been privileged to do so.

Only 70 percent of the farming group reported enjoying reading books or magazines pertaining to better farm practices. This might have been higher had it not included many boys who have not developed a taste for any reading other than love and adventure. Forty-three percent of the city-minded people enjoyed reading about better farm practices. This would also have been higher had it included only mature people.

Almost 90 percent of the farming group expressed pleasure in driving over the country roads studying the crop growth and farming methods, while 62.5 percent of the city-minded group enjoyed the same diversion. This is another illustration of how American people love to drive about the country in automobiles.

The large cities were shown to be very unpopular places to live, since less than 5 percent of the farming group indicated their desire to live in them, and less than 31.6 percent of the city-minded people stated their willingness to live in a large city. However, more than 90 percent of those taking the tests were from small communities.

Attitudes Toward Agricultural Education

Continued training along agricultural lines was considered valuable by 92.7 percent of the farming group and 66 percent of the non-farming groups. This should warm the hearts of those who are primarily interested in agricultural education. It might be a little unfair, however, since teachers of agriculture were the main distributors of these tests. They probably gave them to people acquainted with, or friends of, agricultural education.

The soft earth of a freshly plowed field had an appeal for 93.2 percent of the farming group and 67 percent of the non-farming group. This item is significant because a large majority of those taking the test had had some farm experience and knew the sensation described in the question.

Three fourths of the farming group, as compared with half of the city-minded folks, objected to eating in restaurants for any length of time.

Only five percent of the farmer group, compared with 28 percent of the non-farming group, admitted that they liked to sleep late in the morning during summer and spring.

Watching livestock being judged at a fair proved to be popular with both groups. Eighty-eight percent of the farmers reported enjoying this pastime,

exceeding that of the non-farming group by 23 percent.

Ninety percent of those interested in farming felt that children growing up on a farm are usually happier and develop better character than city children, while only 68 percent of the non-farming group answered in the affirmative. Approximately the same percentages of each group were confident that there is a good future for a better-than-average farmer, and that agriculture is the most important single industry in the world.

In the survey, 71.6 percent of the farmers believed in the theory of crop control for farmers, and 52.9 percent of the non-farming group favored it. Only 62 percent of the farming group looked forward to a vacation as compared with 80 percent of the second group. Fourteen percent of the farmers would be satisfied to work for someone else for a reasonable salary, while 30.8 percent of the non-farming people said they would be satisfied under the same conditions.

Pattern of Likes and Dislikes of Farmers

Differences are shown on 39 other "Yes-No" items, but to a lesser degree, as well as on the "Like-Indifferent-Dislike" items. Some of the interesting things found in the latter group are included in the discussion which follows:

Living and working on a farm is quite popular as shown by the fact that 90.7 percent of the farmers reported liking it, as well as 40 percent of the city-minded people. Seventy-nine percent of the farmers enjoyed working up the seed bed. More than 90 percent enjoyed cultivating crops. Sixty percent reported enjoying listening to the market report, while 83 percent liked to sow crop seed. Husking and harvesting corn, repairing the car, helping to butcher, going fishing, and making $100,000 were reported as equally popular among the farmer group, rating about 60 percent likes and from 12 to 15 percent dislikes. About half the farmers liked to vaccinate hogs, clean the barn, milk cows, go to school, keep records, and read books. Two thirds of the farmers indicated a liking for breaking colts, doing repair jobs around the place, visiting the museum, riding horseback, and going hunting. About 40 percent liked to curry a wild calf, work in a garden, teach a calf to drink milk, and listen to a lecture. One fourth of the farmers liked to shop in the city and visit an art institute. Less than 15 percent of the farmers liked to write a report, sleep during the day, sleep away from home, work in a factory, or work in an office.

Validity, Reliability, and Use of the Test

All of the facts listed above were found as by-products in an effort to find a general pattern of thought which would describe an average person who liked to farm, compared with an average person who disliked farm life. Definite progress was made in that direction. Normal scores for each group have been tentatively set, based on the test results of more than 350 people. Briefly speaking, the results of the study point to a need for putting more emphasis on vocational guidance for vocational agriculture students. The test is educational, convenient, and interesting to give. It makes both the teacher and the student guidance-conscious. The test appears to be reliable to agree with the [illegible] author. However, careful inspection of the above figures and of the conclusion quoted reveals that the data have not been interpreted correctly and that they are not comparable to the data from other studies to which reference was made. The data in the above table, when interpreted correctly, show that 445 of the 3,976 young men now farming had one semester of vocational agriculture and that these 445 comprise 5.78 percent *of the total cases studied* (i. e., 7,661). The percentage for each of the other groups should be interpreted likewise, and similar interpretations should be made for the combined group with two years or less of vocational agriculture and for the combined group with three or four years of vocational agriculture. *The author of the article does not indicate the total number of young men* (i. e., farmers plus non-farmers) *represented in each category; and he does not indicate percentages farming in terms of these totals.* It is these latter types of percentages that are comparable to those indicated from other studies referred to by the author.

To be sure, certain aspects of the situation in the South may be quite different from those in other parts of the country. This matter deserves careful consideration and calls for a careful study and analysis of factors associated with likelihood of farming in various regions. Perhaps the study in question has revealed differences, but the data presented in the article to which reference has been made do not indicate that such is the case. Two attempts were made to secure from the author supplemenatry data which would clear up this point, but these data were not obtained.

between the average scores of the two major groups. It has a coefficient of correlation of +.7087±.0227 between the two halves of the test. This gives a predicted reliability for the test as a whole of +.83.

It is the opinion of the authors that the test could be a valuable aid to teachers of vocational agriculture if used with a full understanding of its limitations. This particular article was written to give the results of the study with no attempt being made to encourage the use of the test. Originally, however, the Farmer's Interest Test was set up in the hope that it would assist a teacher of agriculture to approach a better understanding of the interests of each individual student so that he might do a better job of teaching him and of guiding him in the choice of a life occupation. While it is definitely valuable in this way, one should not overlook the fact that the teacher must study the student from every angle and, after getting all the information possible, apply all of the common sense available in aiding him with vocational choices.

Is It Different in the South?

G. P. DEYOE, Teacher Education,
East Lansing, Michigan

IT SEEMS desirable to call attention to some statistical fallacies which are involved in an article entitled "It Is Different in the South," which appeared in the December, 1938, issue of *The Agricultural Education Magazine*. In that article, data are presented relative to the occupational distribution of former students of vocational agriculture in Alabama. After reference to certain research studies from other states, the conclusion is drawn that "it is different in the South."

Do the figures bear out the conclusion? It appears that they do not. Of 7,661 former students of vocational agriculture in Alabama, 3,976, or 51.87 percent, were farming at the time the study was made. This percentage is not markedly different from the findings in other studies to which reference was made in the article in question.

As the author indicates, in certain of the studies *in other states* it has been found that the more years of vocational agriculture taken by given boys the greater is the likelihood of farming. For the group studied in Alabama, it is claimed that the results "are just the opposite." This conclusion, however, is not substantiated by the data which the author presents.

The following data appear in the article in question:

Number of cases studied.....7,661

Number of boys now farming who had:	Number	Percent Farming
One semester of vocational agriculture	445	5.78
One year of vocational agriculture	1,182	15.42
Two years of vocational agriculture	1,056	13.78
Three years of vocational agriculture	694	9.05
Four years of vocational agriculture	599	7.81
Total	3,976	51.87

Percent of boys with two years or less of vocational agriculture who are farming..34.98
Percent of boys with three or four years of vocational agriculture who are farming...16.86

Conducting Adult Classes Yields Dividends

(Continued from page 153)

makes the proper plans and preparation. Imagine how the teacher's confidence in his ability increases when he sees farmers developing new abilities under his direction and when he later sees them successfully putting them to use.

One cannot conduct a course with adult farmers without *learning* a lot of facts about farming from experienced members of the group. The farmers' viewpoint is secured by the teacher while he is conducting these classes. The teacher is thus better able to blend the practical with the theoretical.

The teacher's *salary* is increased in a great majority of cases by teaching adult courses. Districts in some states provide extra salary for part-time and evening-course work and the salary is thus affected directly. Indirectly, a well-developed adult program is sure to cause favorable reaction toward the teacher's salary.

The benefits from farmer courses should interest the teacher who is thinking of giving service as well as the teacher who is thinking of personal advancement.

*Mr. Young has recently left West Chester and is now assistant professor of agricultural education at Illinois State University.

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man. (2) Every child given an equal chance for an education, with security in office for competent teachers. (3) Old age pensions for the helpless poor. (4) Lifting of tax on small inheritances. (5) Definite progress in a thorolymapped program of paving 20,000 miles of rural roads.

Governor Pinchot's road-building program perhaps brought about more favorable comment from the common people than any other single undertaking. Twenty thousand miles of unimproved dirt roads were transferred from the counties and townships to the state for road construction and maintenance. Governor Pinchot put his shoulder to the stupendous task of getting Pennsylvania farmers out of the mud and doing it economically.

Formerly, roads in Pennsylvania cost $50,000 to $70,000 a mile. Mr. Pinchot introduced a new type of country road which cost $6,000 a mile or less. Frequently where old road beds had adequate bases and did not require much regrading, a layer of broken stone treated with a bituminous binder produced a satisfactory surface road at a cost ranging from $1,500 to $2,500. Oftentimes the farmers contributed the base course of stone. Sometimes they gathered the rock from fields or tore them from old stone fences. The plan always called for plenty of binding material and for successive applications of chip stone to make the surface waterproof and skid proof. The farmers of Pennsylvania were out of the mud by virtue of the "Pinchot" roads.

In *The New Republic* under date of October, 1932, Governor Pinchot enumerated certain advantages which he attached to the construction of this network of improved secondary highways: (1) It offers short connections between state highways. (2) It gives outlets to farms and villages. (3) It provides farmers with roads to market, to school, and to church. (4) It makes doctors available at all times of the year. (5) It brings trade to wholesale and retail markets. (6) It facilitates transit of manufactured articles. (7) It relieves congestion on the main highways. (8) It gives access to the great outdoor playgrounds of the state.

A Crusader for Better Rural Schools

Mr. Pinchot is a staunch supporter of the public school During his governorship a program of rural school consolidation in Pennsylvania moved forward with rapid strides. His regime marks a period of steady and substantial spread of vocational education thruout the Commonwealth, particularly vocational agriculture in rural areas.

Writing in 1913 on the ills and the remedies of rural conditions, Mr. Pinchot pointed out an urgent need for agricultural high schools to prepare boys and girls for life in the country, to direct their attention toward the opportunities in the country, and to cultivate in them the power and the habit of appreciation for the farm. He continued to emphasize that there could be no solution to perplexing country life problems, there could be no continuance of vigorous and animated life in the were brought about in the rural schools.

No matter what aspect of Mr. Pinchot's life one may choose to examine—his work in forest conservation, his public service activities in Washington, his controversies with his colleagues on moral issues, or his record as a governor—he is always found to be a "people's man." When called upon to make decisions, his decisions are invariably made in the interests of the people, and not in the interests of small groups or a favored few. His greatness as a statesman lies in this distinguishing characteristic. He very aptly sums up his philosophy of life in his own self-styled epigram on conservation, "Conservation is common sense applied to common problems for the common good."

Boy-Centered Farm-Shop Teaching

(Continued from page 155)

that to think creatively is one of the highest achievements and the one by which he can render society the greatest service.

The farm shop should give representative experience in common farm practices. The facts and principles must be given to guide the practice; and practice is necessary to form correct habits and aid in remembering for future use. A course should provide practical information and experience on common types of work. In some schools there is a tendency to specialize on one particular type of project. Perhaps it is a hobby of the teacher's or is due to certain influences in the community. After making several projects the work reaches a point beyond learning and becomes purely manual labor. With the equipment of the average school shop and the immature workmen, one cannot expect to compete with the master craftsmen and power machinery of factories. We should be more concerned about how much the project is developing the boy. If the boy learns by his experience the project has been worth while.

IN OUR shop teaching we should create an appreciation for good equipment well cared for. Students should realize the value of tools to man and how much greater servants they are if properly cared for and conditioned.

Naturally one of the objectives should be to teach the correct use of common hand tools. There is sometimes a feeling that if the boy does not build a self-feeder, wagon box, or brooder house he is not learning how to construct such projects. However, knowing processes common to many types of work will be of great value, and large projects often may involve too much expense for the average boy.

In determining our objectives we should choose objectives and course material suited to the student and not attempt to remake the boy so the two will harmonize. We have never been able to fit a square peg into a round hole. Attempting to blend all boys with different personalities into one course is equally difficult. The late W. L. Hunter once said: "Anything around the shop may be a misfit except a boy."

A Chapter Court

G. M. MIZELL, Teacher,
Clear Springs, Maryland

IN ONE of the recent articles in *The Agricultural Education Magazine*, reference was made to the fact that the vice-president of the local chapter is very often the "forgotten man." In the Clear Springs Chapter we have given the vice-president a very dignified and worthy place in the councils of the chapter.

The vice-president automatically becomes chairman of the tribunal or "chapter court." Our chapter court is composed of six members and the chairman. It is the duty of the court to interpret the constitution and by-laws and to impose penalties when members do not conduct themselves in accordance with the provisions of the constitution and by-laws. This plan works very well in building a clean-cut group of boys with high standards of conduct and activities.

The members of the court seem to appreciate the importance of the office and try to perform their duties efficiently. The members of the chapter in turn are very careful in their selection of the vice-president.

Training Leaders in Farm Planning

(Continued from page 147)

effective in co-ordinating the activities of agricultural education, and which will be used as a state-wide policy."

One of the teachers of agriculture said at the conclusion of the course: "This course has done two things for me: it has brought me up-to-date in technical agricultural information, and has shown me how to use all of my technical knowledge in helping farmers in farm planning."

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Education is not to teach people to know what they do not know but to behave as they do not behave.—Ruskin.

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