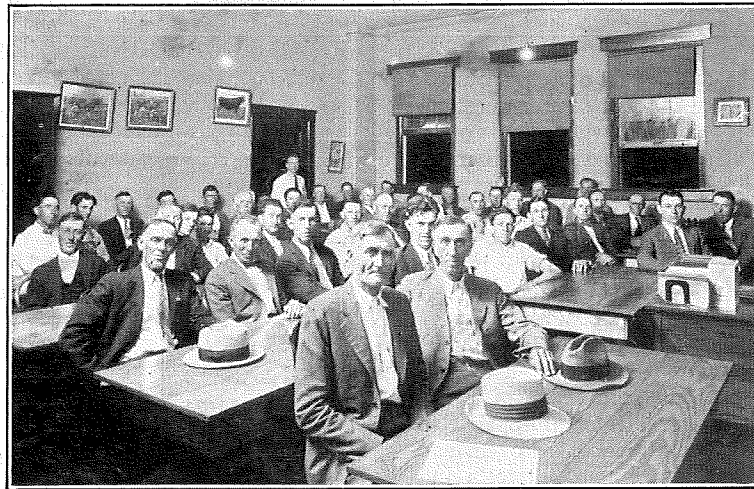


Agricultural Education



No One Too Old to Learn —If He Will

During 1930 there were 60,462 farmers and farm women enrolled in Evening Schools in the United States as organized and conducted by teachers of Vocational Agriculture.

The above picture shows a typical group, gathered together after sundown in the vocational agriculture room, ready and anxious to study the problems confronting them.

This particular group is studying soils and soil management at Perryville, Kentucky. 2115 other vocational agriculture teachers held one or more such schools last year.

*“It Is Not ‘Scrub Stock’ That Despoils
Our Agriculture But ‘Scrub Ideas’ ”*

—L. E. Jackson

EDITORIAL COMMENT

AGRICULTURAL EDUCATION

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WHAT SHOULD EXAMINATIONS MEASURE?

EXAMINATIONS are a necessary part of many courses, often inherited and accepted without serious question. If a reason for their existence is pressed, the reply is often a statement equivalent to "The examination gives me a check on what my pupils know," meaning, usually, what knowledge or facts they have acquired. But does that state the best purpose of examinations?

Teachers of vocational agriculture often go one important step further by setting up at the beginning of each course the specific objectives which they believe, in theory at least, should be attained thru the progress of that course. Thus in teaching a course in animal husbandry a teacher may state his objectives as (1) the stimulation of ideals, attitudes, and appreciations in his students, appropriate to the best animal husbandryman as the teacher senses such an individual, likewise (2) the development of interests and habits, and (3) the promotion of the acquisition of desirable skills and abilities—creative effort, judgment, reasoning, and certain manipulative skills.

To a less degree, tho not entirely overlooked, are this teacher's objectives in the same course in the direction of developing the students in social, civic, health—in fact in any of the other significant phases of the student's "well rounded" education—to the extent that he adjudges his opportunities will help his students to attain such goals appropriately. Surely the development of such traits and abilities in each individual in our vocational classes is a most worthy goal. These objectives conform to those of our best educational philosophers and technicians. They place emphasis upon the student rather than upon subject matter. While they recognize vocational education primarily, they forestall narrowness by appropriately interweaving education of the other "sides" of life. They stress learning facts thru thinking—rich and abundant. Of all this we may well be proud, but what has this to do with examinations?

Just this: If we use examinations as they should be used they will not be primarily a measure of knowledge for knowledge per se is not an objective but merely a valuable means, but they will measure knowledge in action—useful knowledge being used—in lifelike patterns in each individual. They will measure, by pre-tests, the starting point of each student and, by end tests, the objectives or goals so carefully stated at the beginning of the course and will therefore help to answer the question "How many of our students have arrived at our objectives" or, more accurately, "How far has each student progressed toward each objective?" So our examinations should be measures of student inter-

ests, of creative thinking, of reasoning, judgment and manipulative abilities.

These objectives should be measured by the wider use of especially designed objective tests, such as drawing inferences, applying principles and testing hypotheses, as tests of reasoning and judgment—sometimes presented in words, sometimes thru drawings, sometimes thru tables or charts; by opportunities for original thinking and response provided thru appropriately selected problems involving creative ability; by testing manipulative skill definitely and quite objectively. In the fields of ideals and appreciations objective measurements are least developed but we can well afford to keep informed of the progress of test specialists working in these fields and use their findings as they become available. At present, however, the least that we can do, if we would be good teachers, is to direct our examinations to the specific end of measuring our student's achievements in the applications of knowledge and the acquisition of skills according to the stated objectives of our course.—W. F. S.

NEW SPECIAL EDITOR

PROFESSOR JOHN T. WHEELER of Georgia, who for the past year has acted most effectively as Special Editor for Evening Schools, has asked to be relieved of this responsibility. He feels that it is wise to rotate staff assignments for the good of the magazine.

The editing-managing board has accepted Professor Wheeler's resignation. His work has been of the highest order and readers have been most appreciative of his efforts.

Mr. C. L. Davis, state supervisor for Texas, with headquarters at the State Capitol, has been selected as the new editor for the evening school section. He begins his active duties with the July, 1931, issue. All copy on the subject of evening schools should be sent direct to Mr. Davis for editing.



C. L. Davis

Supply him with good stories, good pictures—and plenty of both.

Mr. Davis is exceptionally well qualified for this position. He has a keen sense of news value, does considerable writing, and is located in a state which is "doing things" in evening school work. He will appreciate your continued interest in supplying evening school material which will be of value to vocational agriculture teachers. Copy to be usable should tell of something new or unusual rather than relating more or less commonplace events. New ideas, new results, new methods are what readers like to see.—S. D.

FUTURE FARMER ACTIVITY

KEEP the chapter alive and happy during the summer with tours, camping trips, fishing parties, picnics, and other activities which all boys enjoy. Arrange for a field day with neighboring chapters. Remember that *fun* should be included in a chapter program.—S. D.

IS YOURS ONE?

THE publisher informs us that there are 655 June expirations. If yours is one, take steps at once to resubscribe. Some splendid articles are on file and planned for coming issues—you can't afford to miss them.

YOU'RE INVITED

American Society of Agricultural Engineers meets at Ames, Iowa, June 22 to 25. All interested may attend.



Effect of Vocational Agriculture Training Upon Work in College

ROLLO E. SINGLETON, Department Agricultural Education, University of Missouri

FEW people question the benefit of training as supplied by a course in vocational agriculture to the boys who intend to farm immediately upon graduating from high school or possibly without graduating. The course is organized with that group in mind. Our avowed purpose is to train better farmers—to train for better farming. Proof is not lacking that we accomplish that aim, at least to an appreciable extent.

Along with this group of boys who have definitely decided upon their vocation we enroll many boys who are undecided as to this important matter. A number of these boys later go to college. Whether inspired to do so by the example of their teacher, enabled to do so because of cash project returns, or for other worthy reasons is irrelevant. The fact remains that they go.

Conjecture has been rife concerning the effects of the previous training in vocational agriculture in high school upon the college careers of these boys. Are their chances for success increased or diminished because of such training? Do they have a self-sufficient feeling when they enter related technical agriculture courses in college? Knowing something about these subjects, is their interest lessened and their effort correspondingly diminished? Do they continue in the field of agriculture after acquiring some college training? Do they regret, having spent one-fourth or in some cases almost one-third of their time in high school upon agriculture?

With these and similar questions in mind a study was made of the scholastic attainments of students in the College of Agriculture of the University of Missouri. Grades made by 426 students in the college formed the basis for the study. These students comprised the entire group enrolling as freshmen during the fall and winter semesters for the five-year period beginning with 1925-26 and including 1929-30. Of these students 171 (40.1 percent) presented one or more units of credit in vocational agriculture for entrance; 255 presented no training in that field.

Altho vocational agriculture is taught in secondary schools primarily to develop more efficient farmers, such training probably increases, and certainly does not diminish the chances for a successful college career in the field of agriculture. This conclusion is amply justified from the results of a study recently completed at the University of Missouri and briefly reported herewith.

Not all grades made by these students were analyzed. The comparison of attainments by the two groups was confined to the field of technical agriculture. Basic courses in five different enterprises were selected for the study. They were: "Types and Market Classes of Livestock," "Field Crops," "General Horticulture," "Elements of Dairying," and "Elementary Poultry Raising."

To facilitate comparisons the grades received were given weights in accordance with their excellence. An E received a weight of 4; an S, 3; an M, 2; an I, 1; and an F, 0. The percentages of E, S, M, I, and F grades were also computed for the two groups and comparisons made on that basis.

A second phase of the study was an analysis and comparison of the two groups of students regarding the ultimate outcome of their college attendance. Both groups of students (vocational and non-vocational) were divided into six sections with relation to the results of their college career. They consisted of those students who: (1) have received degrees, (2) are now in attendance, (3) have changed to another school, (4) have quit school voluntarily, (5) have been excused, and (6) have been suspended.

The third phase of the study consisted in the analysis of the returns from 100 questionnaires concerning the value of vocational training as a preparation for attendance in the College of Agriculture. These questionnaires were sent to the 100 students whose names appeared first on the alphabetical list of all those in the vocational group in this study.

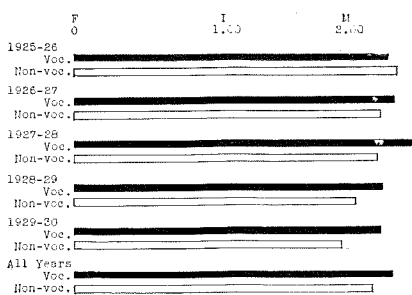
The results of this entire study should be very gratifying to vocational teachers. Grades made in technical agriculture courses by students with vocational training are of higher rank than those made by other students in the College of Agriculture. The average weight of grades for all students considered and for the five-year period was 2.25 for the vocational group as compared to 2.11 for the non-vocational group. The vocational students averaged 6.7 percent E, 25.9 percent S, 55.8 percent M, 8.6 percent I, and 2.6 percent F. The non-

vocational students for the same years and subjects averaged 4.4 percent E, 20.7 percent S, 59 percent M, 12.7 percent I, and 3 percent F.

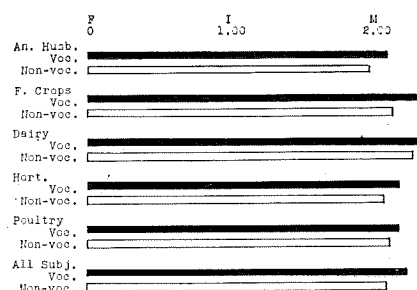
Not only was there a difference in favor of the vocational group as a whole but the difference was more pronounced in recent years than in the earlier years of the study. This would indicate greater efficiency in teaching. Also students presenting four to six units of credit in vocational agriculture surpass those presenting fewer units. The average percent of E made by those presenting six units of credit in vocational agriculture was 7.2; those presenting 5 units, 9; 4 units, 8.5; 3 units, 4.5; 2 units, 2.5; 1 unit, 0. The average weight of grades made by students presenting 6 units of credit in vocational agriculture was 2.24; those presenting 5 units averaged 2.42; 4 units, 2.28; 3 units, 2.11; 2 units, 2.08; and 1 unit, 1.5. This indicates that those taking the maximum work in vocational agriculture in high school excel those taking the minimum.

The second phase of the study which analyzed the results of college attendance gave a more comprehensive criterion for evaluating the effects of the work than did the grades made in technical agriculture courses. It is interesting to note that this phase of the study parallels the findings in the more limited field. Twelve and eight-tenths percent of all vocational students enrolling receive degrees as compared to 9 percent of the non-vocational group; 31 percent are now in attendance compared to 29 percent of the non-vocational students. Approximately equal percentages of both groups quit voluntarily or were excused. Only 14.6 percent of the vocational students were suspended as compared to 19.6 percent of others. The difference within the groups that changed to other schools after beginning their college career was very marked. Two and two-tenths percent of the vocational group made such changes as compared to 6.6 percent of all others. This indicates greater stability among the vocational group and the effective-

(Continued on page 196)



Grade Comparison by Years



Grade Comparison by Subjects

What You Are

A. K. GETMAN, Chief, Agricultural Education Bureau, New York

A SUPERINTENDENT of long experience and sound judgment has just left my office. He came seeking recommendations for the agricultural position in his school system. "But," I inquired, "Is Mr. 'A' being let out?"

"Yes," came the reply, "we need a more substantial influence in that department. I tell you, Mr. Getman, the older I grow in the profession of education the more I want to know what my teachers *are* as well as what they can do."

During this month a thousand or more young men will be graduated from the teacher training departments of our colleges of agriculture. Most of them, presently will be guiding the activities of a group of vocational pupils and striving to integrate their program of instruction into the activities of the school and the community. Often, I look back on that day, 20 years ago when, like each one of this group, I undertook the sacred responsibilities of teaching. It was fortunate, indeed, that I came under the able and kindly guidance of a master teacher. Repeatedly he counseled his teachers thus, as he borrowed from Emerson, "Remember that what you are speaks so loud that I cannot hear what you say."

Most of us can recall vividly the vital influence of some teacher whose dynamic personality seemed to radiate confidence and whose guidance was so complete because of what he was, quite as much as what he said. To tell exactly why we were so moved by that particular personality would be difficult. At this distance we merely *know* that we were stimulated to do better, to think more clearly, and to feel courageously. Such distilled essence of prophetic insight as has come down to us in the slogans of such leaders as Emerson helps us in part to explain the influence of gifted teachers in our lives.

Now, my friend the superintendent was mindful of this factor in the choice of his teachers. He had no fault to find with the technical ability of his present teacher. He was not willing, however, to retain a man on his staff who reduced the influence of what he said by what he was. With the space limitations here imposed we cannot expand the ideas which cluster about this situation. Let us emphasize, however, two elements which are an outgrowth of the writer's personal observation.

First, consider the matter of a right attitude on the part of the teacher toward the organization of which he is to be a part. What shall be his point of view toward his superior officers? How shall he conduct himself in relation to the regulations of that particular school? How shall he uphold the standards of the school when he is outside the classroom and mingling with the townspeople? Such questions as these indicate the realm of the importance of right attitudes in dealing with others. In a few words let me suggest to the young teacher, that it is his personal responsibility to find out what he is expected to do in and about the school in order to carry his share of the load. This means,

BUILDING A TEMPLE

A builder builded a temple
He wrought it with grace and skill;
Pillars and groins and arches
All fashioned to work his will
Men said as they saw its beauty
"It shall never know decay.
Great, is thy skill, O builder:
Thy fame shall endure for aye."

A teacher builded a temple
With loving and infinite care
Planning each arch with patience
Laying each stone with prayer
None praised her unceasing efforts
None knew of her wondrous plan,
For the temple the teacher builded
Was unseen by the eyes of man.

Gone is the builder's temple,
Crumpled into the dust:
Low lies each stately pillar,
Food for consuming rust
But the temple the teacher builded
Will last while the ages roll
For that beautiful unseen temple
Is a child's immortal soul.
—Anon.

at the outset a conference with the school executive to determine specific duties and relationships. A middle of the road course should be sought in maintaining high instructional standards in the vocational department and in promoting and guiding pupil activities in developing a strong school. Let it be the function of the teacher of agriculture to place his abilities at the disposal of the administration thru an expressed attitude of willingness and helpfulness. Only by the maintenance of such an attitude on his part may he hope to grow professionally. Make it perfectly clear to the principal or superintendent that you seek guidance and counsel. Let it be easy for him to come to you with suggestions and comments for the improvement of the school. Don't slip into the rut of being a "Yes, yes," man. Have your own opinions based on a thoughtful study of the facts. Express your views with supporting evidence and seek to harmonize opinions.

The second element relates to the marvelous opportunity of the instructor for teaching ideals and molding character. The influence of the teacher is felt in every walk of life. The teaching profession holds a front rank in developing personality. No longer is the work of the teacher considered as merely the inculcating of selected bits of knowledge or devising devices to keep pupils busy. The real teacher goes far beyond that. For the true teacher of agriculture the principal task is guiding his boys so that they may select and live by high ideals and so that they may build sound character. He is chiefly concerned with building men. He is satisfied only when the product leaves his hands with something of the quality and spirit of life which he has set for their example.

Perhaps the greatest compensation of the teacher is the realization that he played a vital part in making a pupil's life useful and happy. With our present knowledge of the science and art of teaching it seems clear that such a part is played chiefly when the teacher pro-

vides the right pattern for the boys in his own happy and useful living. When such ideals as friendship, perseverance, loyalty, trustworthiness, integrity, sympathy for boys' problems, and a readily noted desire to help solve them, and the like, are observable by the boys as characterizing the thought and actions of their teacher, we have our best assurance that leadership in real living is being provided. Thus we come back to Emerson's aphorism.

One of the finest stories in all literature is that of the prodigal son. At the outset the young man declared to his father, "Father, give me mine inheritance." And the indulgent father granted the foolish boy's request. How he went out into a far country and lived riotously is well known. In modern days he would go to the speakeasy, night club, and the race track. But presently, the boy's money was gone, as it always goes under such circumstances and his heart began to trouble him. It was a hard battle but finally he won and trekked his weary way back to his father asking forgiveness.

But what a change! When he went forth he thought only of "give me." He soon learned that what he had was not so vital as what he was. Then came that prophetic request to his father, "Father, make me." He, too, seemed to have learned the lesson of "what we are" in happy and useful living.

So, in our profession, what we have to teach is important, but of vastly greater significance is what we are.

Vocational Education in Porto Rico

UNDER the terms of the Bingham-Reed Act, extending the benefits of vocational education to Porto Rico, the Federal Board for Vocational Education will co-operate with Porto Rican educational authorities in the promotion of vocational education and vocational rehabilitation in the same way that it now co-operates with the states in similar programs.

The program for vocational education in agriculture, according to Dr. J. C. Wright of the Federal Board, will provide for the employment of between 20 and 30 teachers during the first year, who will handle agricultural courses in as many different schools, as well as the organization of a teacher-training program at the college of agriculture.

"The vocational agricultural training courses to be set up," Dr. Wright says, "will give special impetus to the attempt now being made by Governor Roosevelt to get Porto Ricans back on the land. Investigation has shown that only 6 acres of land are required to support a family of 8. While considerable progress has been made in this movement, it is necessary that both the youth and adults of the island be vocationally trained before the movement will succeed as it should. The tendency in the past has been toward too much emphasis on common, untrained labor in cultivating farm lands, especially on the sugar and pineapple plantations.



Questioning During a Demonstration to Encourage Thinking and Understanding

W. F. STEWART, Professor of Agricultural Education, Ohio State University



W. F. Stewart

largely in the field of science teaching in college*, it seems quite reasonable to assume a fair measure of the results to be equally applicable to teaching in high school. In teaching related to vocational agriculture, the demonstration is used frequently by many teachers who give instruction related to such operative jobs as are especially common in a course in farm shop work, and less common in courses in farm crops, animal husbandry and farm engineering. Examples in these fields, respectively, are, making a harness thread, treating seed oats for smut, castrating a pig and using the farm level. In this usage the demonstration precedes individual participation to acquire manipulative skill.

Textbooks treating the subject of operative jobs of the types mentioned give help in varying degree concerning the appropriate steps to be performed but they are usually quite deficient in helps on that important phase of the teaching process which brings about the highly desired goal, thinking unto the point of understanding. On this feature I have examined some eight books and special bulletins, and in not to exceed two have I found any attempt to reach this goal. So it is to suggest aid to this end that this discussion is directed.

Altho measurements of results from various teaching procedures in conducting demonstrations might be made quite objectively by controlled experiments, to my knowledge nothing has been done as yet in this direction. I therefore write quite empirically basing my recommendations upon pedagogical principles whenever possible. For this reason I invite an especially critical evaluation of my suggestions by any who may chance to read them.

When planning to give a demonstration, the teacher's first step is to select the operative steps which he believes constitute the desirable procedure for his pupils to learn. This choice of operative steps to be presented is based upon his technical and practical knowledge in the particular field of study. The

THE demonstration, as a teaching device to attain certain objectives, has gained favor very materially during recent years and, for the most part, at the expense of laboratory teaching. Altho the experimental work has been done

steps chosen will have resulted from years of experimental work at the experiment station or in the college laboratory, or of practical work in the shop or on the farm. To illustrate: the method of testing milk learned by the teacher in the college laboratory, the method of sharpening a plane bit taught him by his shop instructor or by a competent carpenter, the method of treating seed potatoes recommended by the experiment station or the extension service will, let us say, be his choice of the best procedure for his boys to learn. Since these are the results of years of experience, either controlled or trial and error, shall he not accept them as the best, give them to the pupils as the best now known, and, conversely, shall he not avoid approaching the procedure by asking the class, for example, "Just how would you test milk?" Why? Because it is the acquisition of skill in doing these steps that is the immediate goal and not a creative experience of devising a way of doing the job or a managerial decision of determining which of several methods is the best to follow.

The teacher will later place these steps before his pupils at the appropriate time and in the manner he deems most effective—by mimeo, by blackboard listing or orally, step by step.

The form of stating these operative steps is a controversial matter. Some teachers prefer brief indefinite statements with details to be brought out during the demonstration and by questioning. As an example:

Making a Harness Thread—

1. Unroll and break the threads.
2. Assemble the threads.
3. Twist the threads.
4. Wax the threads.
5. Attach the needles.

Others favor a more detailed and, therefore, a more complete statement of each step which is given in its entirety to the pupils before it is demonstrated. The supporting argument is that the boys do not know the steps and therefore need to be told what they are. They need to know the steps before they are demonstrated. More than that, they need to be told with such definiteness that they will be able to proceed intelligently in doing the operative steps following the demonstration, and also that, in the event of future need to refer to the steps for later self teaching or review, adequate information shall then be available. On this issue I prefer, as in other doubtful or controversial procedures, to yield to implicitness and completeness rather than to risk being misunderstood as a result of statements too general and indefinite. I, therefore,

state my steps admittedly in considerable detail as reference to the illustration which follows will show.

In view of the stated purpose of this discussion I now pass by the approach and the quickening of the desire to know how to do the job about to be demonstrated, and come to a consideration of the questions that should accompany the manipulative steps shown in the demonstration. I shall attempt to determine the type of questions, some of them inductively, basing my generalizations upon one case only. This case must therefore satisfy the requirement of being a typical demonstration. I believe I am justified in using as an example, Making a Harness Thread. The operative steps chosen and the questions follow:

MAKING A HARNESS THREAD*

1. Take the end of the thread in the left hand and draw out a length slightly longer than the length estimated for the proposed job.
 - a. Why take the end in the left hand?
 - b. Why not make a thread of length sufficient to do two jobs?
2. Hold the thread firmly in the left hand at the desired distance from the end and untwist six or eight inches by rolling it on the right hand with the palm of the right hand. Hold the thread on each side of the untwisted portion and slowly pull it apart.
 - a. Why not cut the thread as in household practice?
 - b. Would two or three inches of the thread be enough to untwist?
3. In like manner draw three, four, five, or more threads of the same length. Place them together so that the second projects slightly past the first, the third slightly past the second, and so forth.
 - a. What determines how many threads we shall use?
 - b. Why should the threads be of the same length?
 - c. Why should the ends of the threads project past each other?
4. Throw the new thread thus formed over a hook and draw both ends toward you. Using shoemaker's black wax, wax six or eight inches of one end of the thread by drawing the wax pad quickly over it several times. Wax the other end in a similar manner. Next twist the thread by rolling one end down the right thigh

*In the statement of these operative steps, the assistance of Mr. A. C. Kennedy, instructor of agricultural education and critic teacher in the Reynoldsburg High School, Reynoldsburg, Ohio, is gratefully acknowledged.

(Continued on next page)

*A selected bibliography of 15 appropriate studies is omitted for the sake of brevity.

until the desired amount of twist is secured. Twist the other end in the same manner.

- a. Why must we draw the pad quickly over the thread?
 - b. What is the purpose of twisting the thread?
 - c. How do you decide when enough twist has been given the thread?
 - d. Why not twist the whole length from one end?
5. Equalize the twist by drawing the thread back and forth around the hook.
 - a. Why is it necessary to equalize the twist?
 6. Wax the thread by holding both ends in the left hand while keeping the ends separated by the fingers and then drawing the waxed portion of the wax pad vigorously back and forth over the thread, waxing only a short section of the thread at a time. It will be necessary to slide the thread on the hook in order to wax the entire length. When all the thread is waxed draw it back and forth quickly between the unwaxed folds of the wax pad in order to equalize the wax, making a round, uniformly covered thread.
 - a. What is the advantage of waxing only a small portion of the thread at a time?
 - b. Why do we go over the thread again with the unwaxed portion of the pad?
 - c. Why is it necessary to equalize the wax?
 - d. How can we judge whether the covering of wax is uniform?
 7. With the exception of six or eight inches of each end of the thread draw it over a ball of beeswax.
 - a. What is the purpose of using beeswax?
 - b. Why not coat the ends of the thread with beeswax?
 8. Attach a needle to one end of the thread by drawing this end thru the eye of the needle to a distance of about two inches, then double the thread back and twist the needle with the right thumb and index finger, gradually moving the left thumb and finger down the thread as it is twisted. This makes a smooth, tapering twist. Thread a needle on the other end in the same manner.
 - a. Is a smooth, tapering twist of importance?
 - b. Do you now see what would be the effect of making the new thread from single thread the ends of which were cut rather than untwisted and torn?
 - c. Do you now see why it is impossible to use a thread for two jobs of sewing?
 - A. As you have observed this demonstration, what seem to you to be the steps necessitating the greatest care?
 - B. If you were asked to describe a well-made harness thread, what would be your description?
 - C. Did you notice any steps in the demonstration where you feel improvement might be made in the operation by either reducing labor, saving material, or improving the product?

If we assume that the questions asked relative to the several steps make a contribution to thinking unto understanding, then it is appropriate to ask, "What

seem to be characteristics of these questions?"

My first generalization is: Of such steps as it appears appropriate, ask, "Why do we do this (step)?" Question 1 a. is of this kind. I note 11 questions of this type among the 24. It must therefore be very important. It is recognized as a call for "cause and effect" relationship *than which no relationship makes a more important contribution to retention*. Reason enough, is it not? Note the variety of phrasings by which this relationship is called from the pupil, "Why do, and so forth?" "What is the purpose of doing?" "What is the reason for doing?" "What is the effect of doing?" Variety forestalls monotony.

SOME GUIDES TO QUESTIONING DURING A DEMONSTRATION

Ask why do we do this (step).

Ask why not do this step this (different) way.

Ask for the meanings of new words used.

Ask questions of judgment within the experiences of the class.

Ask for a recognition of the steps requiring special precaution.

Ask for a description of the ideal.

Ask a question that will stimulate thinking towards improvement or progress

Generalization No. 2 is: Of such steps as it appears appropriate, ask "Why not do this step this (different) way?" Question 1 b. is of this kind. Five other questions seem to me to classify under this type. It must be important also. The reason seems to be that it also calls for a recognition of cause and effect relationship, but a relationship that leads to undesirable ends and is therefore to be avoided. Thus far, then, our two types of questions have brought out cause and effect relationships—effects that are desirable and therefore justify our doing the step as we do, and other effects that would be undesirable and therefore point out why we should not do the step some other way. At this point it is recognized that in some demonstrations two procedures at a certain step may be equally desirable and, therefore, both may be justified.

What is another generalization? Ask judgment questions the answers to which are based upon the normal experiences of the class, experiences which,

as yet, the pupils do not necessarily associate with the job being demonstrated but with other tasks, analogous or comparable. Questions 3 a. and 4 c. are examples of this type, of which I find six illustrations in this demonstration. To defend situations calling for the reasonable exercise of a pupil's judgment is as uncalled for as a defense of understanding itself. Caution must be exercised that judgments are not asked in situations which are too far beyond the ability of the pupils to explain. Perhaps an example is: Which material is the best for use in making a harness thread—cotton, wool, or flax?

Another generalization, less frequently appropriate, is a recognition of the steps requiring especial precaution and usually necessitating the greatest skill. Two questions here are of this type, 8 a. and A. They are justified on the grounds that they serve to emphasize in the pupil's thinking the danger spots, the proceed-with-caution stretches, and thereby eliminate waste and repetition.

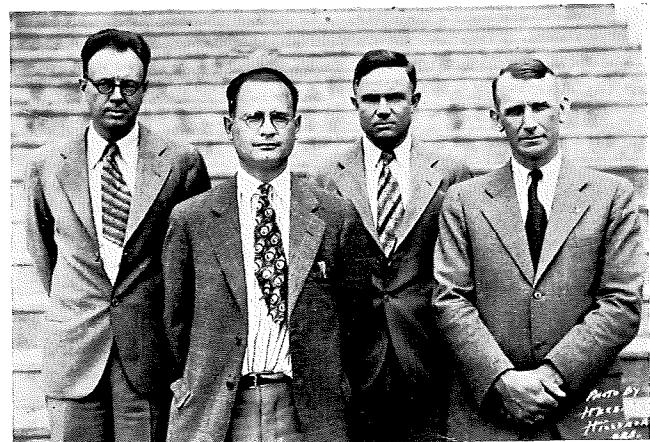
Another generalization, not illustrated in this demonstration, but sometimes appropriate, is: Ask questions calling for the meanings of new terms used. Surely agreement on the meanings of words is basic to the use of those words in communication. When the teacher is talking about cauterize, disinfectant, skiver, neutralizer, or flux, he must make certain that all pupils have as nearly the same concept of the words as is possible for him to insure.

Lastly, we come to a consideration of two types of questions of which only one example of each is found in the illustration. One is the summarizing question emphasizing the ideal. "If you were asked to describe a well-made harness thread, what would be your description?" At the close of the demonstration with "a well-made harness thread" before them, this question is justified on the grounds that the promotion of the ideal must be not only strengthened but strengthened early in the learning process, as well as never be allowed to weaken and ever be improved upon. This question meets the situation by combining a visualization of "the well-made thread" with a verbal description immediately upon the completion of the thread. A written description read aloud might also be requested.

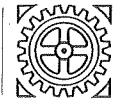
And now the last question: "Did you

(Continued on page 196)

Master Teachers of Oregon—1930



Warren E. Crabtree, R. M. Adams, W. C. Higgins, O. K. Beals



How We Get Our Shop Projects

GEORGE W. BEATTY, Gillette, Wyoming

MR. BEATTY, my four oldest boys have been enrolled in work in your department for the past six years and my youngest boys will be enrolled in your department for the next six years. When you send them back home to the farm they can do three things that are of more use to a farmer like me than all the book learning they can get otherwise. Your Farm Mechanics course teaches them to stay with a job of work until it is done right. And they can be told or shown how to do a job right," is what Jim Kintz, deputy assessor, and one of the largest farmers in Campbell County, Wyoming, told me a short time ago.

Mr. Kintz is in a position to judge the practicability of Farm Mechanics as it is taught in the Campbell County High School.

His remark is typical and is one of many that are made to me, to our superintendent, and to members of our high school board constantly. It is to gain such commendation that we have developed our course as we now present it to our students.

We owe our success to our persistence in making use of only such methods as will enable the boy to take what he learns in school right back to the farm and be able to make it work right on the job with the tools and equipment available.

To determine just what these methods should be the entire county has been carefully surveyed by the students and again by the teacher. In so doing we get the students' ideas and the ideas of the farmers and ranchers in such a way that we have a very thoro picture of the county's requirements and are able to select and list those most in demand.

This list is then presented annually to ten or fifteen key farmers and ranchers located in various parts of the county whose opinions enable us to reduce it to the number of jobs it is possible for us to accomplish during the school year. The list of farm jobs made up in this manner is confined almost entirely to those that are practical and applicable. After being approved by our superintendent and school board it is adopted and followed as far as possible.

Each boy receives a mimeographed copy of this list at the beginning of the school year. He is informed that he is expected to develop the skills necessary to do the work required for the jobs listed but that jobs from home requiring these skills are given preference and he is encouraged to bring such jobs to school to do them. In our case he does bring them to school and our shop floor and benches are continually filled with work for the home or for the farm or ranch where the boys are working. With personal interest and enthusiasm running high for their projects, our

practice exercises and pseudo jobs are cut down to a minimum. City boys and others who do not bring in practical jobs are put to work with other boys who do, so that their work is also definitely practical.

No work is permitted to leave the shop or is considered complete until it has reached what we believe to be the average labor accomplishment or skill for the county, and a boy beginning on a project stays with it until he has accomplished the degree of skill required for such a job. Our boys are taught to realize this rule from the very beginning and I believe we are modest when we say that at least 80 percent of our boys master all the skills outlined in the year's work.

They have not only mastered them but they are able to duplicate their work when they return to the farm because we supply them with only the tools and equipment found on the average farm for doing such work. With a saw, hammer, plane, brace and bit, pliers, screwdriver, and a rule or square a boy finishing our course is able to do practically all of the common jobs that occur on the average farm or ranch. He is not only able to do it but in about 90 percent of the cases he does do it, which is one reason why our work is so successful.

Another reason for our success is the splendid interest and active co-operation we receive from our superintendent, the members of our high school board, and from the patrons thruout the entire county. This co-operation is recognized as a very important factor when one instructor alone in a small shop teaches an average of 75 or 80 boys a day divided into two classes. It proves what diligent effort and real co-operation can do in high school farm mechanics work.

Some News

PROFESSOR H. E. Bradford of the University of Nebraska will teach this summer at Cornell University, offering courses in the history of American education and in adult education.

Dr. Ray Fife, state supervisor of agricultural education in Ohio, will present courses in supervised practice and in community educational activities at the summer session of the University of Missouri. Dr. Fife will also assist with the summer session at Ohio State University.

Dr. C. B. Gentry of the Connecticut Agricultural College is another visiting instructor at the Ohio State summer school.

C. L. Angerer, assistant state supervisor for Missouri, expects to enroll for graduate work at Cornell this summer.

Getting Shop Projects

L. L. FALCK,
Agriculture Teacher,
Belle Plaine, Iowa

BECAUSE there is no available place for shop work in the high school building, the work for the past two years has been carried on in an old building that was formerly a feed mill. This makes quite an acceptable shop, because several large projects can be made at one time. The disadvantages are that it is quite a distance from the high school and it is necessary to heat the building with stoves.

This year we tried a new plan to get a greater variety of woodworking projects. One day in class we listed all of the articles we thought might be made in the shop. These were "dittoed" and the next day sent to each Dad with the instructions to check all items they wanted their boys to make and to add any others. Each boy came back with four or more items to be made and we had a good variety. We also built some articles such as feeders, watering stands, and the like, before we had an order for them. The boys saw these and in many cases changed their designs accordingly or made new ones like those in the shop. In every instance we have been able to sell these articles to the boys' folks. None of the class seemed to need a hog house but we built one any way in order to give them some experience in rafter cutting and other similar jobs. One of the older boys expects to take the house.

The agriculture department has a fund sufficient to buy materials and carry it until paid for by the person taking the article. All projects must be settled for before leaving the shop.

A Survey Helps

R. E. REGNIER,
Fairview, Kansas

AFARM shop survey has been used successfully in our farm mechanics work. It has been used three years being changed somewhat each year.

Boys take survey blanks home and fill them out on school time early in the year. The survey covers rather completely all the enterprises we teach in our department. Jobs are listed under such headings as "Handle fitting jobs around barn," "Soldering jobs around barn." The farm machinery section of the survey gives specific directions for looking over the various implements for needed repairs and adjustments.

Each boy plans his year's work as fully as possible on the basis of his survey. The plan does not bring about miracles. We still have boys who do a poor type of shop work. There has been, however, an increase in the number of real farm jobs we get. Farm machinery work is particularly stimulated by such a survey.



Supervised Practice



Insuring Worthwhile Projects by Gaining Cooperation of the Parents

H. E. LATTIG, Teacher Trainer in Agriculture, University of Idaho



H. E. Lattig

AFTER visiting hundreds of projects, as teacher and teacher trainer, the writer is convinced that one of the greatest opportunities for improvement in the vocational agriculture program is in the method of approach made by teachers to the

parents of prospective students.

It is known that a few teachers have failed to sell the project work in their communities. Some projects are so small and poorly selected that boys and their parents cannot be expected to show much interest. A successful project program implies co-operation of all interested parties and the teacher is the one person responsible for getting that co-operation.

Notwithstanding the paramount importance of obtaining the co-operation of parents to insure success in project work many teachers consider it the least attractive and most difficult part of their work. An analysis of the aversion which some of the men seem to feel towards a positive attempt to gain co-operation shows that few wish to be considered salesmen. Secondly, there are those who shrink from doing anything which may create the impression that they are boosting their own stock, and finally, some hesitate to attempt to sell a large project, fearing that the boy may fail, thereby throwing too much responsibility and unfavorable criticism upon the teacher. Needless to say, if the teacher has not enough faith in himself and his work to assume his share of the responsibility, if he does not believe in his program to the extent that he knows it will be a success if rightly managed, he had best engage in another line of endeavor. Let him remember that he has something which the people want and need, and if he puts over his work, he need not worry about selling himself.

Since the first contact with the parents is so important, the teacher should make careful preparation for it. He should rehearse his plan of procedure until he knows the salient points forward and backward, for, in talking with the parents, he will find that they tend always to bring up topics which lead the conversation away from the desired channel. If he has not firmly in mind the things he wishes to emphasize, he may find upon leaving a place that he has entirely omitted reference to, and explanation of, some of the main points

for which the call was originally planned. This does not mean that he should not be ready to listen to, and show interest in, such matters as sickness in the family, the parents' ideas of taxes and education, the row that is brewing in the local school district, why it is a waste of time and money to treat wheat for smut, why every man in Wall Street should be hanged, and so on. He may also be asked to look over the animals and crops and to pass judgment on the horticultural efforts of the feminine contingent.

It is possible, however, for the teacher to show himself in sympathy with the special or routine problems of the parents, and incidentally to drop a few sound ideas regarding agricultural practices and economics, and yet tactfully bring the discussion back to his purpose without apparent intent. The desirable interview is not hurried nor brusque, but one should spend no more time in irrelevant pleasantries than is necessary. At best, the new man often feels that he has made a mess of his first two or three interviews, but let him stay with it, and he will soon find himself developing a convincing and straightforward little sales talk, the best feature of which perhaps may be that the more often he goes over it, the more he comes to believe in it himself. When he reaches the stage where he believes in the efficacy of his job, without reservation, any timidity or self-consciousness which he may have felt will disappear and from then on nothing should stop him.

No Specific Rules

Of course, it is impossible to set down hard and fast rules to follow in interviewing parents, as every conversation necessarily takes a somewhat different trend. However, after a considerable amount of observation and experience, the writer believes that the procedure herein outlined will give excellent results. Where teachers have followed it, there has been a marked improvement in projects. New men have put over a better project program their first year than did their predecessors who were considered successful teachers. Apparently, the improvement could be traced to the effort which was made at the beginning to gain the co-operation of parents.

If the job is well done with the parents when the boy first starts the work, it need not be done again, so for the purpose of this discussion, it will be supposed that the teacher is to deal with the parents of boys who have not been in the work before. Naturally, in those districts where a teacher encounters

projects not started under his direction, and which are not up to the standard, he should visit the parents of the boys concerned and make as definite an effort to secure new interest and hearty co-operation as he would in interviewing the parents of a new project.

Suppose a new man goes on the job July 1. Before school opens in the fall, he should have made contact with every prospect in the community and have talked at some length with his father and mother. Any teacher should be able to canvass his entire district during the summer. If he cannot when he has six full days a week, he certainly will not be able to do so after classes have begun and he has numerous other duties to encroach upon his time.

Start Early

To make a start, the teacher can obtain the names of two or three prospects from the former teacher, superintendent, principal, or former students. He will then drive out to the home of one of these boys. Very often neither the boy nor his father are to be seen about the place, which may prove to be fortunate since the mother is likely to be particularly sympathetic and interested in the boy's education. Many times, she will do some valuable advance work on the father before the teacher meets him.

Having arrived and knocked at the back door of the house, let us have the teacher follow out a plan somewhat as follows:

1. Inquire if this is the home of John Field.
2. Ask if the lady addressed is John's mother.
3. Introduce yourself.
4. Ask if John expects to enter high school in the fall.
5. Try to learn thru questioning, whether John is interested in some particular line of work. (The mother may discuss John at some length. Perhaps he does not wish to continue in school and she will ask the teacher to help get him in line; he may plan to be an air pilot and is not interested in farming; or, the mother may think the farm is a "bum" place, and altho John has hands like hams, she hopes he will take shorthand and typewriting and get an easy job. At any rate, the teacher will learn considerable about John.)

After this discussion, the mother almost invariably says something like, "I wish you would talk to his father, he is out there in the hay field." Or, "John will be home tomorrow, could you drop in again some time?"

This hint is very strong and the

teacher is likely to involuntarily find himself bidding the mother, "Good day." If he does, the chances are great that she will never know the aims of project work and will not contribute the help she might, provided John decides to enter the work. Right then is the time to explain the program, and it should be done thoroly. If the teacher waits until he has been on the place a few times, he will never say, "Well now, I should like to explain to you just why I have been coming out here."

It isn't done! However, if any parent is manifestly very busy, it is usually a mistake to intrude and an appointment should be made when he will have time to talk.

6. Proceed with the work's explanation, saying:
 - a. The object of such a visit is not to interest every boy in taking agriculture.
 - b. The nature of the work is such, however, that it is advisable to become acquainted with the boys and their parents who are interested before school opens.
7. Suggest that John may be interested and ask for a few moments to explain the vocational program.
8. Stress these points:
 - a. A boy must be interested in his school work if it is to be successful. Many drop out of school because of lack of interest.
 - b. It is difficult to interest a boy unless he sees a need for what he is studying.
 - c. If education is to appeal to a boy, it must develop a sense of responsibility, initiative, and judgment. It must teach him to actually do things.
 - d. Agricultural training is vocational; its purpose is to teach a boy how to determine for himself the best manner of doing farm jobs, and then to do them.
 - e. To accomplish these aims, there must be a close connection between the school work and the farm. Therefore, each boy is made responsible for some enterprise at home, which is called a project. It may be either crops or livestock.
 - f. The training is made possible by the Smith-Hughes law, which provides part of the money necessary to carry on the work. There are _____ departments in the state and over _____ thousand boys are enrolled. The departments are placed in communities where they will reach the greatest number of farm boys.
9. Point out that the following factors should be considered in selecting a project for the boy who enrolls:
 - a. The boy's particular interest.
 - b. Practical value and ease of incorporation into the general operation of the farm.
 - c. The probability of profits large enough to compensate for labor expended.
 - d. A businesslike agreement whereby the boy shall receive a fair and definite amount of the proceeds. (Every teacher should have certain definite financial agreement plans in mind for each

type of project to be in a position to give suggestions.)

10. Make clear that a boy not in a position to carry a project is not encouraged to enroll.
11. Emphasize that the summer selection of a project makes it possible to build the course of study to meet the interests and needs of the students.
12. State that after selection of a project is made and classes begin:
 - a. The student determines every job he must do and makes plans for it before the time has arrived for doing the work.
 - b. In school, he not only studies books and bulletins, but must consider the best practices in the community before his plans can be made, thus throwing a certain amount of responsibility upon each individual, each boy's problem having certain features not common to those of the others.
 - c. In addition, each member of the class having a problem, some of the angles of which the class works out together, all students thereby gain considerable training in types of farming not developed in their own projects.
 - d. The boy is intensely interested because he is studying actual problems and not mere assignments required by the teacher.
 - e. Throuth the year, a complete record of plans, labor, expenses, and receipts is kept. School credit is given if the record book submitted is satisfactory.
 - f. The teacher supervises the work during the entire year, endeavoring to visit the project at critical periods in order to give help and advice as needed.
13. Call particular attention to the fact that the attitude of the parents has much to do with the success or failure of the undertaking; that, if they keep in mind that the work is educational, give encouragement and praise when advisable, permit the boy to assume the responsibility of making decisions and allow him to do all of the work possible, the project is sure to give splendid results.
14. Mention successful projects which may be in the community.
15. Announce that the boy and his father may expect another visit shortly and suggest that the proposition be discussed in the meantime.
16. Before leaving, obtain the names and locations of other prospects, it being advisable to get several, as it often happens that no one will be found at home on some farms and the thread of contact temporarily lost.

Occasionally, both parents are encountered at the same time. Whether the explanation of the program is made to one or both at the first meeting, it should be understood that it is of prime importance that each thoroly understand the objectives and plan of the work as soon as possible. Usually it is best to sell the program to the parents before the boy is consulted. Nevertheless, if he happens to be present, it can be explained in much the same manner

as indicated above, perhaps with slight changes in wording. As a rule, one or more return visits are necessary to clarify the parents' conception of the program and to make final selection of the project.

It is not enough for parents to say a boy may have a project. They must be made to feel their joint responsibility for its success. There will be times when it is necessary to call upon them to see that the work is done during the absence of the teacher. There will also be times when they will be asked to permit practices, other than those commonly used on the farm, for educational purposes. How can co-operation be expected when they are not interested parties?

At times, a boy may be found who is eager for the work, but the parents are loath to agree to a project, either because of their financial situation, or because they are dissatisfied with farm conditions and hope the boy will train for a "white collar" job. In such cases, the following arguments may prove effective:

1. The boy will live on the farm for the next four years, if he finishes school. The project would be the best thing in the world to make him more satisfied, and it should result in his being a greater help in operating the farm.
2. To succeed in anything, one must be interested. It is a mistake to encourage a boy to train for a calling unless he is interested in that particular line of endeavor.
3. Some farmers, at least, are making money. If the boy starts to study now, there is no reason to believe he will not develop into a successful farmer, if farming is the thing in which he is most interested.
4. He is living in a farming district. If he goes into work, other than farming, he may live in this district or one similar to it. If so, his knowledge of farming will be beneficial.
5. Money is required to keep a boy in school. Would it not be possible for him to meet some of the expense by using a part of the proceeds from his project?

It must be recognized that a large percentage of farmers are renters. Some of these people hesitate to make any binding agreement as the next season may find them in entirely different circumstances. This holds true, especially with regard to crop projects. However, where the teacher explains the work in the proper manner, the response of the parents should indicate if they are willing to co-operate within reasonable limits. If so, it is almost a certainty that the boy will be permitted to have a project, even tho the family moves to another farm. In such cases, the boys should select the type of project which they hope to have and start working on plans for it. In cases where moves are necessary and new projects must be selected, the time spent on making the first plans has not been wasted as the boys should be able to make new ones more quickly and efficiently as a result of having worked on the first.

The survey should not be confined to farm boys, especially where the department is located in a small town. There will be a few town boys who will want

(Continued on page 196)



Evening Schools



Farmers Study Soils and Soil Management

WATSON ARMSTRONG, Agricultural Education, University of Kentucky, Lexington, Kentucky

THE first evening school conducted by the department of vocational agriculture at Perryville, Kentucky, was held in the spring of 1930. Ten meetings were held between the eighth of April and the eighth of May. The subject, "Soils and Soil Management," was selected by the farmers. As the department of agriculture at Perryville was 11 years old, the farmers of the community were familiar with its work. Nothing had been done before, however, in the way of an evening school.

Personal talks with farmers and business men of the community indicated that a number of men were interested in evening school work. Many such conferences were held before it was fully decided to conduct an evening school. Personal visits were made to the farms of prospective evening school members. Local farm and community problems were discussed. The subject of the course was suggested by many farmers as being of special importance at that season of the year. Four days before the first meeting a letter was sent to every prospective member giving further information concerning the course and urging their presence at the first meeting. The date of meetings was announced thru local papers and by posters placed daily in both local banks. The course was further announced and advertised by the 47 boys who were members of the regular all-day class. Thirty-eight farmers attended the first meeting. The problems for each of the ten meetings follows:

1. How Plants Grow.
2. What Are the Uses and Sources of Phosphorus?
3. What Are the Uses and Sources of Nitrogen?
4. How Grow Legumes?
5. How Use Lime?
6. a. What Are the Uses and Sources of Potassium?
b. How Supply Organic Matter?
7. How Care for and Use Manure?
8. Use of Mixed Fertilizers.
9. How Buy and Apply Fertilizers?
(Discussion was led by a specialist from the college.)
10. Summary, Conclusions, Open Discussion, and Feed.

Charts, drawings, and maps were used in connection with the various lessons. Food requirements of plants, elements lacking in the soil, and elements present in fertilizers were shown on large charts. One of the Future Farmers, who was somewhat of an artist, made large drawings on a movable blackboard showing legumes and non-legumes, their root systems, and how they obtain their food. Other interesting points were brought out in this manner.

The soil types of the county and of

surrounding counties were studied from state geological maps. Results of plant food deficiencies were shown on tables and charts. Samples of lime and various fertilizers were brought in, examined, and their plant food content and usefulness discussed. The farmers, working in pairs, learned to make simple tests for soil acidity.

The attendance was fairly regular thruout the course. The average attendance for the ten meetings was 38. Twenty-six farmers attended seven or more of the meetings. Fifty-three farmers attended three meetings or more. The meetings were held in the agriculture room of the high school building. The class met promptly at 7:30 p. m. and disbanded at 9. The men attending the class ranged in age from 22 to 74. Eighty percent of the members of the class were above 30 years of age.

The bankers of the community, together with a few leading farmers, formed the nucleus of the class. New members dropped in from time to time at the invitation of regular members. The influence of the bankers of the community contributed much to the success of the course.

The subject of the course proved to be a very timely one, since most of the men were engaged in plowing, manuring, and fertilizing and were much interested in the different problems considered. The farmers entered wholeheartedly into the discussion of each problem. After the close of each lesson the farmers discussed with each other specific individual problems.

Bulletins and circulars dealing with the various subjects were handed to the farmers from time to time. Reading and study was optional but many farmers agreed that reading along the line of the discussions was very helpful in clearing up the various points.

At the ninth meetings of the course a specialist from the university was present to answer questions and to discuss certain problems dealing with commercial fertilizers. The last meeting was an open discussion and summary of the points brought out during the course, after which ice cream, cake, and smokes were served by the local chapter of Future Farmers.

A complete summary of the course was mimeographed and handed to the farmers at the last meeting. This summary was a brief review of the problems studied and the conclusions reached. It proved helpful in bringing out points that were not clear and in covering lessons that certain farmers missed. It was also valuable for future reference.

Several improved practices resulted from the course. Eight farmers used lime for the first time. Four farmers purchased improved fertilizer drills.

Ten farmers used a better grade of fertilizer. Six farmers side-dressed their tobacco. Many farmers resolved to take better care of manure, sow more legumes, and cultivate more efficiently. The standing of the department in the community was improved. Business men and farmers became more interested in farm practice work and the program of the regular all-day classes. The farmers voted that another evening school be held the following year.

[The cover picture on this issue shows the members of Perryville evening class.]

An Eminent Economist Looks at Evening Classes

EVENING classes for farmers from 18 to 80 years old is the most impressive thing in agricultural education that has developed in this generation," states Dr. James E. Boyle, professor of rural economy, Cornell University, in a recent issue of *The New York Herald-Tribune*.

"What is an evening class for farmers and why is it so important?" asks Dr. Boyle, and he answers: "It is important because it gets hold of a few farmers in the community who are hungering and thirsting after knowledge. These men are in a receptive mood. Since they are actually practicing the vocation of farming, there is no lost motion, lost effort, or lost time in teaching them agriculture."

"The vocational agricultural teacher finds out where an evening class is wanted. He gathers a group of 15 or 20 farmers in the busiest season, such as planting or harvesting, for this is the 'psychological moment.' The farmer's mind is on the subject; he is concerned with it seriously. He is receptive to the new knowledge. Once the busy season is over the farmer thinks of going fishing or gunning rather than going to an evening class. So the busy season is used, and is a proved success."

"The teacher must stick to the facts as worked out by the various experiment stations. Farmers in the class are encouraged to contribute ideas proved sound in their own experience. These discussions help farmers discover their own problems. A problem once clearly stated is half solved."

"Especially in the South today," observes Dr. Boyle, "we see the farmer starting to school, and as a direct and immediate result of this intense schooling changing his century-old farm practices. There already are thousands of cases on record where the farmers have lowered the cost and improved the quality of their cotton and corn, of their fruits and vegetables, of their livestock and poultry."—*New York Herald-Tribune*, March 15, 1931.

Real Farm Relief

RALPH W. MITCHELL,
Director of Vocational Agriculture,
Marysville, California

ADULT education should not be given as a fly-by-night proposition. Real night school guidance should be planned to fit the needs of the community over a long period of time to improve the common practice and build for future development.

The cow has been christened the mother of civilization; dairying bringing in more millions to the farmer than the production of wheat and cotton, so this subject can well afford to be given definite consideration in most long-time programs of instructions for adult farmers. Every agriculture instructor in a dairy community can safely plan a ten-year up-grading dairy program.

The Marysville Union High School of Yuba County, California, outlined such a program some years ago, and so far we have exceeded the quota for each year. The dairy night school is held in the Union High School under the direction of the vocational instructor, who acts as the conference leader. Ten nights, one each week, is given to the group discussion of one certain topic in dairying.

Following is a list of the problems for this year's discussions:

1. Sanitation and standardization of milk and cream.
2. Milking machines, sterilizers, and separators.
3. Feeding for milk production.
4. Different systems of testing for production, and keeping of proper records.
5. Construction of dairy barns and milk houses.
6. Irrigation of forage crops.
7. Bacteria in milk.
8. Calf feeding.
9. Problems of the dairy manufacturing plant.
10. Economics of the dairy industry.

Many ways can be devised to make the meeting more interesting and educational. When outside speakers from state colleges or prominent feed houses assist in the discussion, care must be taken that the meeting is of a discussion nature and not a lecture, and that every one having problems has an opportunity to take part in the discussion.

When milking machines, sterilizers, and separators are studied, local merchants are very willing to set up and demonstrate the different types sold in the community.

Prizes donated by local merchants handling dairy equipment and given at the close of the meeting as a door prize, assists in stimulating good feeling and a more regular attendance.

What better method can be devised to assist the taxpayers of a community, have real farm relief localized, and create a lasting feeling of friendship and boosting spirit for education than to give an adult evening school, discussing an outstanding farm enterprise in your community?

The opportunity for follow-up work and contact with the farmer broadens the agricultural instructor's outlook of local practices and makes his work more worth while and a pleasure to see existing conditions change for the better. Should not the agricultural teacher's motto be: "Make the best better?"

Who's Who

WE HAVE received several favorable comments on an evening class article written by Abraham Coan, Lambertville, New Jersey, appearing in the March issue of *Agricultural Education*. We are, therefore, presenting Mr. Coan in person.



Abraham Coan

Just why Mr. Coan is a successful evening class teacher, we do not know, but we do know that he is 38 years old, and that he has been teaching agriculture for 12 years, and evening classes for at least four years. Perhaps some of his success with his evening classes in poultry is due to the fact that Mrs. Coan operates a paying poultry business on a 128-acre farm in the community where the school is located. We suspect also that Mr. Coan's "Star American Farmer," David Johnson, reflects the quality of his teaching, and H. O. Sampson, state supervisor of agricultural education in New Jersey, says, "Coan is a darn good teacher."—J. T. W.

Producing Summer Eggs

W. E. LEVERKUHNS,
Vocational Instructor,
Bryan, Texas

DURING February and March, I taught an evening school on "Summer Egg Production." In Brazos County, Texas, it is a problem to produce and put high quality fresh eggs on the market.

After studying this problem in evening school, 12 farmers of Kurten and Reliance communities went in for producing and marketing infertile eggs that are guarantee stamped.

During the hot weather months of 1930 these men produced infertile eggs and stamped them with individual egg stamps and sold the eggs to merchants in Bryan, Texas. The eggs were gathered once and twice daily and held in a cool place until they were marketed which is once per week and oftener. Not only were the eggs properly handled but in most cases the men candled the eggs to remove any that would not grade the highest. Small undersized, cracked, and blood spot eggs were removed and kept at home. Nothing but eggs of the very best quality are allowed to go on the market.

What is the result? These men have never received less than 5 cents per dozen above the market price for fertile eggs; most of the time the premium has been around 8 cents per dozen. In some cases as much as 15 cents per dozen premium has been paid for stamped eggs. At this time, August 22, stamped eggs are bringing 25 cents per dozen, while fertile eggs are bringing 15 cents. All eggs produced by these farmers are sold in the local market.

Conference Method Best

L. A. HODAM,
Bement, Illinois

AFTER four attempts at conducting evening classes, I have come to the conclusion that the advice of the state office in my first year of teaching is correct. "A small group of farmers working together upon the conference or discussion group basis will accomplish more than much larger groups under the lecture method." Probably the easiest way to conduct an evening school is for us to import outside speakers and get as large a group as possible out to hear them. It looks rather nice from the standpoint of numbers and is also rather nice because the teacher gets out of talking, except to introduce the speaker of the evening. This type of evening class will appeal to the new teacher, who does not yet feel quite equal to the occasion. I have been most guilty of conducting this type of evening class. In the past I think we have been putting a little too much emphasis upon numbers and not enough upon the quality of the classes.

The longer I teach the more I feel that the agriculture teacher should preside at most of his evening classes and as far as possible conduct them along the informal discussion group plan. There are certain advantages and disadvantages in connection with this plan. In the first place the teacher is going to have to study and keep up to date in order to lead a discussion group. He, on the other hand, will be able to get more discussion out of a group of farmers than an outside speaker. Just the fact that the teacher leads the discussion is going to enable him to get a little closer to the farmers in his community. Probably the greatest objection to the discussion group plan is that it is hard to get a discussion out of a group on some subject that they do not know a whole lot about. In that case the teacher will have to be ready to combine lecture with discussion.

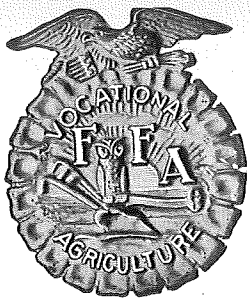
This Meeting Was an Eye Opener

O. L. YOUNG,
Germantown, Ohio

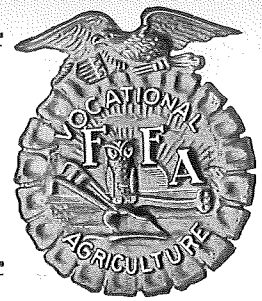
THE best meeting we ever had," was the common expression of the members of my evening class following a lesson in the course in farm management which centered around the query, "How much interest are we paying on our installment-plan purchases?"

The meeting was opened by my directing the class thru a calculation of the interest paid on the installment-plan payments of a certain well-known company. After this finding was discussed other members of the class either calculated the interest they were paying on an installment-plan, or they gave the data to the teacher and to the students for calculations. When the calculations for the evening were completed it was found that, on the basis of the data given by the members, the interest payments varied from 17 to 73 percent. It fairly took the breath of some of the members. I felt that this was one of the most interesting and valuable lessons I had ever taught to an evening class group.

I suggest this for the consideration of others who may happen to be in communities where the installment-plan system of payment is in operation.

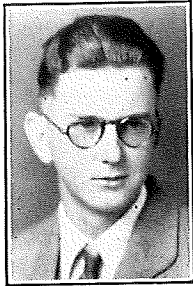


Future Farmers of America



James Neal, "American Farmer" of Oregon

WARREN E. CRABTREE, Director Vocational Agriculture, Silverton, Oregon High School



James Neal

JAMES NEAL, 18-year-old boy of Silverton, Oregon, and Oregon's first "American Farmer," is one of the outstanding young men of the state.

Young Neal, member of the Oregon Association of Future Farmers of America was selected in

1930 as Oregon's candidate for the "American Farmer" degree, the highest honor that can be conferred upon a member of this organization.

Neal has been actively identified with the Oregon association and served the organization as its first president. He is a leading character in the Oregon Future Farmer motion picture film made by the Southern Pacific Railway during the annual Smith-Hughes Week-end at Oregon Agricultural College, to explain the work of vocational agriculture as carried on in Oregon. James was also president of his local chapter.

James graduated from the Silverton High School last spring and is now engaged in the poultry business on a rather large and modernized scale. In his freshman year Neal started a project in poultry with a flock of 69 red and white chickens which he kept in an old shed. The net profit from his first year's work with this flock was \$94.07.

In his second year he discarded his mixed flock and substituted a flock of purebred white leghorns, hatching his own chicks and ending the year with a net profit of \$42.10.

In his third year Neal made a real start in the poultry industry with a flock of 162 white leghorns. He also hatched 108 wild Mallard ducks and added 15 head of sheep to his farming activities. In this year he also constructed a large poultry house himself and then a brooder house and closed the year with a net profit of \$354.15.

In his senior year Neal's poultry flock numbered 450 leghorns and 18 Mallard ducks. His flock of sheep had increased to 30 head. His net profit for this year was \$418, making a total of \$908.30 for the four years. Another brooder house was added to his equipment during his last year and numerous other improvements made in his poultry plant, including the installation of trapnets in the laying house, a range hospital house, a range fattening house, and range houses for breeding pullets and roosters.

James at the present time owns 477

head of livestock and poultry, these being either bought or raised in the development of a self-made enterprise. The working capital is approximately \$1,100 with five acres of ground held in partnership with his father who is employed elsewhere.

The kind and scope of farming activities carried on by James during the past year are as follows: Truck gardening, 2 acres; growing 2 acres of corn for ensilage; making concrete foundation for a silo; helping in the construction of one wooden silo; filling the silo; owning but letting out on shares 25 head of sheep; enterprise of raising 347 head of poultry; commercial hatching with 300-egg capacity incubators; brooding chicks (1,380 chick capacity); hauling 32 tons of hay for farmers; hauled 6½ tons of hay for his father; hauled 1,000 board feet of lumber for the silo; preserved 30 dozen eggs; ran a 20-quart milk route daily; sold eggs to milk customers and others along his route; built 1,610 feet of poultry fence; helped construct and equip two brooder houses, wired four poultry and brooder houses for electric lights; and built a trailer with an extra stock bed in the Smith-Hughes farm shop.

In the classified list of farming skills in which James has demonstrated his efficiency outside of the regular Smith-Hughes project work are practically all phases of the enterprises dealing with the raising of corn, wheat, hay, gardening, hops, horses, sheep, dairying, studies in animal and plant breeding, utilization of feeds with the working out of balanced rations, mixing of rations,

experimental methods in feeding, forge work, machinery repair, and the marketing of farm products.

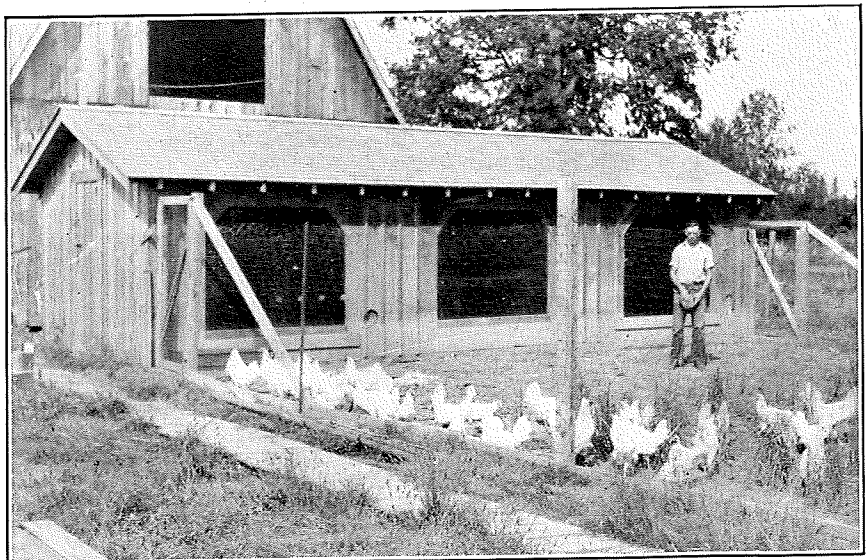
In the list of supplementary farm jobs James has carried out on his home farm was the making of a wheelbarrow, two trailers, ladders, fences, gates, construction of feed bins, self-feeders, trap-nests, pipe fitting, farm plumbing, helping install a home water system, and care of and the installation of some dairy barn equipment.

Participation in group and class projects were: helped organize and secure charter for the local F. F. A., helped form student co-operative bulletin board, helped stimulate student buying and selling plan, organized the local F. F. A. thrift plan, helped lay the tile drainage system on the school grounds, and helped in the construction of the Smith-Hughes farm shop.

Investments in buildings (to date): livestock and equipment actually owned by Neal total \$942 while other assets are listed at \$75 in a checking account, and a \$100 loan to his father on the home farm. Liabilities such as notes, mortgages, and unpaid bills, none.

Evidence of successful farm management are shown thru the change in breeds of chickens from reds to white leghorns as James says "because of the greater amount of eggs produced and because of the greater value as to marketability." Also a change "from grade white leghorns to purebred Hanson strain because more can be made from day-old chicks by having a pure strain of stock."

While total flock numbers are shown



Poultry house, gates, fencing and walk constructed by James Neal

to be relatively small due to close culling, marked successful changes were made by "bettering the poultry stock and housing conditions and the production of high class breeding cockerels and pullets for the market.

To show that this young man still holds faith in the opportunities to be gained from agricultural production, James, during this early spring has added an incubator hatchery house to his enterprise and is starting the construction of a new 24 x 60 foot laying house.

While young Neal has already established a selling reputation for his eggs, chicks, and breeding stock, besides doing custom hatching for others, he is trap-nesting and securing breeding records of his flock and is culling closely. In this way the ambition is fast becoming a reality of this young "American Farmer" to establish himself in the commercial hatchery and poultry breeding business of the very highest order.

Use F. F. A. Markers

AT THE F. F. A. Congress last fall the delegates adopted an official F. F. A. marker. These are now ready for distribution. The marker is made of 30-gauge copper-bearing, black steel with the F. F. A. insignia printed in colors on the face.

The markers are designed primarily for display at the homes of F. F. A. boys. They are also effective for use at fairs, shows, banquets, show windows, and so forth.

The markers are put up in packages of 25 and the manufacturer will not sell broken packages. The price per package is \$2.07, or 8¼ cents each, plus transportation charges. A package of 25 weighs approximately 10 pounds. The manufacturer is the St. Louis Button Company. Orders must be placed thru the state supervisor and OKed by him. Chapter advisers should secure order blanks from their supervisor at an early date.

Local Department Sponsors Radio Talks

A. H. OLESBERG,
Smith-Hughes Agriculture,
Barnesville, Minnesota

THE Smith-Hughes department of the Barnesville public schools has given regular twice-a-week talks to farmers on dairy and poultry problems over radio station KGFK, Comstock Hotel, Moorhead, Minnesota. This work was started the middle of December and was continued thru January. Part of one evening is devoted to answering questions, and this affords a means of telling how many are regular listeners. Large numbers of questions have already come in to the station not all of which are confined to dairy and poultry problems.

Don't Expire

Note the expiration date on the address stencil on your magazine wrapper. If it is 6 31 AE it means that this is the last issue for which you have paid. Send your dollar at once to the Meredith Publishing Company, Des Moines, Iowa, or to your state supervisor or association treasurer, depending upon your state plan.

Annual Program of Work West Virginia F. F. A.

J. V. ANKENY, Assistant State Director

AT THEIR Annual Conference held last November our Future Farmers adopted a program of work for the ensuing year. At a recent meeting of the executive committee the boys decided to have this program printed on a piece of cardboard 14" x 24" and arrange four spaces to the right of each item so that each chapter can check the quarter of the year in which a proposed activity was begun with one color and with another color that in which completed.


These spaces have sufficient vertical space for a bar graph indicating the degree of completion, that is, ¼, ½, ¾, entire. These cards are supplied each chapter in good standing and are posted on the bulletin board of the VO-AG

chapter room.

As soon as an activity is begun or completed a check is made in the proper quarter column. Progress toward completion is indicated by the length of the horizontal bar.

Each chapter will bring its State Program Chart to the annual meeting at Morgantown this year where it will be displayed in connection with the reports of the delegates.

As is indicated above this is a new venture with us and it remains to be seen how effective it will be. Experience to date would indicate that it has considerable value as a device for checking achievement of goals set in a most definite and objective manner.



Annual Program

OF WORK

West Virginia Future Farmers of America

ACTIVITY	ACCOMPLISHMENT	REMARKS
1. Supervised Practice. 1. Every member having a long time supervised practice program including one or more projects and supplementary jobs. 2. At least part of each boy's supervised practice program must be started at beginning of school.		
2. Co-operative Activities. 1. At least one of the following co-operative projects: (a) Production (b) Marketing (c) Buying (d) Financing (e) Work with neighboring chapter or other organization.		
3. Community Service. 1. Put on demonstrations of improved farm practice for farmers. (a) (b) (c) 2. Carry out one or more of the following activities: (a) Agriculture news sheet (b) Farmers' bulletin board in some public place (c) Window display of F. F. activities (d) High school exhibit (e) Exhibit at fair (f) Put on program at rural school (g) Sponsor some community beautification or improvement program		
4. Leadership Activities. 1. Participate in one or more contests individually or as team. (a) (b) (c) 2. Each member to lead at least one group discussion and follow up results.		
5. Earning and Saving. 1. Every chapter emphasize thrift through one of the following plans: (a) Organize a VO-AG thrift bank. (b) Organize a VO-AG thrift accounting system. (c) Participate in the school thrift bank.		
6. Conduct of Meeting. 1. At least one meeting a month for entire year. 2. Meetings held outside of regular class, preferably at the curricular period. 3. Definite program for each meeting. 4. Emphasize businesslike, dignified parliamentary procedure. 5. Emphasize training to speak clearly in public.		
7. Scholarship. 1. Scholarship above average in every subject.		
8. Recreation. 1. Father and Son Banquet by every chapter. 2. Conduct at least one of the following: (a) Educational tour. (b) Sightseeing tour. (c) Project tour. (d) Camping or fishing tour. 3. Picnic 4. Rural life plays.		

Ohio Holds Fourth Annual Leadership Conference

RALPH J. WOODIN, Student in Agricultural Education, Ohio State University

OHIO'S fourth annual Leadership Conference February 5 and 6, broke all records of attendance with 150 delegates present as representatives of 80 F. F. A. chapters. This conference is sponsored during Farmers' Week by Townshend Agricultural Education Society of the Ohio State University. Membership in Townshend includes college students who were F. F. A. members in high school and students who are preparing to teach vocational agriculture.

Plans for the conference were made by a committee of Townshend members with the assistance of Professors W. F. Stewart, and L. E. Jackson of the teacher training department, and Dr. Ray Fife and his assistant supervisors. This committee decided that the conference should have five purposes: first, it should seek delegates from F. F. A. chapters who could work with their home chapters a year after attending the conference thus manifesting their leadership and creative ability; second, it should give these delegates suggestions as to setting up proper aims and objectives, conducting better meetings, the use of correct parliamentary procedure, and, in general, making better chapters; third, it should provide for the inspiration of delegates by having them hear of the work done in outstanding chapters in the state and have them meet, hear and know the three American farmers selected from Ohio last year; fourth, it should give the delegates a state-wide rather than a purely local view of F. F. A. work; fifth, it should provide participation for as many delegates as possible.

In building the conference program the committee found F. F. A. talent ranging from saxophone quartets to talks by American farmers. Group discussions and round tables were conducted in which the delegates expressed their views and presented their problems. Participation was carried even to the more formal parts of the program in which 30 boys took part.

That part of the conference program furnished by F. F. A. members included the following numbers: An opening talk was given by Lowell Slagle, president of Ohio's state F. F. A. organization. Musical numbers included piano solos and quartets, vocal, brass, and saxophone, with group singing interspersing all the programs. A team from the Canal Winchester chapter gave the opening and closing F. F. A. ceremonies and put on an initiation of several delegates into the Green Hand Order. Elmo Spring and Ralph Bender, American farmers, gave an account of their trip to Kansas City last year. Four chapter presidents took charge of the meeting under the direction of Professor W. F. Stewart to provide practice in using proper rules of parliamentary procedure. Robert's Rules of Order were used to decide questions upon motions and other parliamentary procedure. The last hour of the conference was used for a round table discussion of the problems, ques-

tions, and difficulties submitted by the delegates.

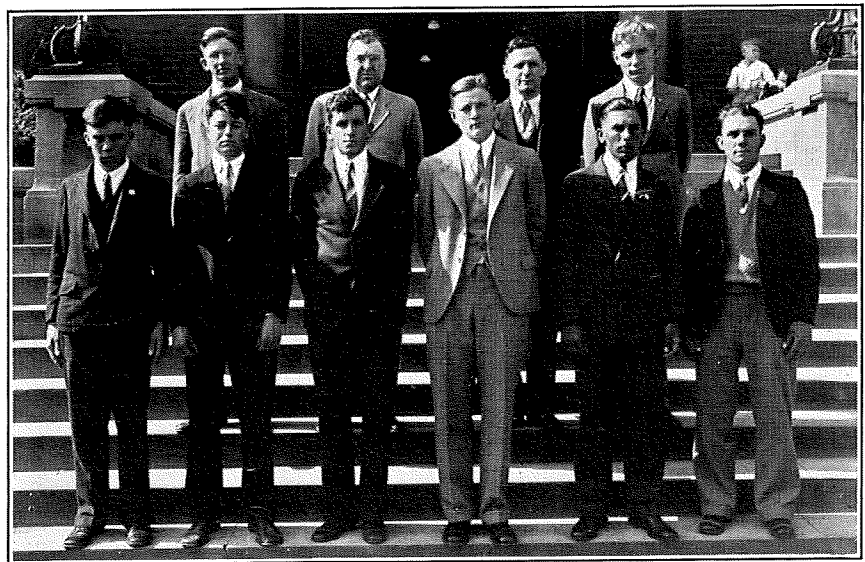
Other features of the program were provided by men familiar with F. F. A. chapter problems or the needs of rural youth. Professor O. H. May of the Franklin County Y. M. C. A., discussed stunts and games appropriate for F. F. A. programs. Later two stunts were demonstrated by Townshend members which brought gales of laughter from the delegates. Dr. D. Oberteuffer, state supervisor of health and physical education, gave an address on "Sports in American Life." Dr. E. O. Tetreau of the department of rural sociology, talked to the boys about rural leadership, stressing the advantages and the opportunities which the members will have in the near future. In commenting on the conference, Dr. Tetreau said, "I was struck with the quality of leadership which the boys showed. They seemed entirely confident in handling their meetings and their thinking in relation to their problems was of a particularly high quality."

The big event of the conference was the banquet held Thursday night. The attendance included the delegates, their teachers, members of Townshend, teacher trainers, state supervisors, and guests which included members of the legislature, the rural press, and commercial agencies co-operating with the movement for vocational agriculture. After an enjoyable dinner Toastmaster Julius A. Odegard, a Townshend member, introduced each feature of his program with a large and appropriate cartoon. After the usual address of welcome by R. E. Smith, a Townshend member, and the response on behalf of the delegates by Robert Millisor, winner of Ohio's 1930 F. F. A. public speaking contest, Dr. Ray Fife presented medals to the winners of the 1931 F. F. A. public speaking contest which had

been held the afternoon previous, and P. Orrin Bailey, this year's winner, delivered his oration. Entertainment was interspersed by a saxophone quartet of F. F. A. members, a vocal quartet of Townshend members, and a professional comedian. Professor W. F. Stewart spoke very appropriately on "Ideals and Objectives in Vocational Agriculture." The address of the evening was given by Ralph A. Howard, assistant supervisor, on the theme, "The A, B, C's of Leadership," one feature of which included the assigning to each banquet table of a letter of the alphabet with the request that those seated at that table should decide upon an outstanding quality of leadership which began with their letter. Later these qualities were called for by Mr. Howard with the range from Ability to Zeal.

In expressing his views of the Leadership Conference, Professor L. E. Jackson of the teacher training department, stated, "The Ohio plan, whereby the Townshend Agricultural Education Society of the Ohio State University sponsors a Leadership Conference for boys representing the various Ohio chapters of Future Farmers of America, is to be highly commended in that suggestions for the development of real leadership accrue to all who participate. There is no doubt that the high school and college students who work with the conference develop a broader vision of the possibilities for achievement and are inspired to set higher goals. Many state leaders having to do with programs of work in connection with the Future Farmers of America may well consider the advisability of carrying on an annual Leadership Conference.

Everyone connected with the conference from delegates to state directors agree that it should be an annual affair. Four years ago 25 schools were represented; this year there were 80.



Officers of the Ohio Association F. F. A. Front row, left to right — Luther Heintz, Merrill Beroath, Lowell Slagle, Lawrence Bishop, Carl Russell, Ernest Renner. Back row left to right — Robert Hackney, Ray Fife (State Adviser), Ralf Howard (Exe. Sec. Treasurer), Walter Ritenour

F. F. A. County Unit Formed in South Carolina

W. H. GARRISON,
Assistant State Supervisor,
Columbia, South Carolina

IN THE fall of 1929 the agricultural boys in the high schools of Dillon County not only organized local chapters, but went together in organizing a county unit. Every agricultural boy of this county is a member of the county Future Palmetto Farmers. Each year the chapter in each school elects two delegates to the county executive committee. One of these delegates is the president of the chapter, the other is elected from the first year class. This committee meets once each month thruout the year and discusses plans and actions of the chapters in the county.

Last year the boys of Dillon County co-operated in several undertakings. These included conducting a county contest, exhibition of produce from projects at county and district fairs, shipping hogs, sending representatives to state fair school, and attending camp at Tamasee. This year the boys are planning to enlarge upon this program. We have already begun another county contest, have held one essay contest, and are now making plans for two football games to be played between F. P. F. teams.

Both teachers and boys feel that this organization has been the cause of a friendlier feeling among the boys of the county and a lesson in co-operation that could not have been learned otherwise.

The following are the rules for the F. P. F. Contest in Dillon County, October 15 to January 15, 1930-31:

(1) This contest is to be governed by the executive committee of the Dillon County Future Palmetto Farmers.

(2) All points allowance must be approved by this committee.

(3) Chapters will be divided equally into sides and will compete against each other. At the same time two chapters of the county will compete against the other two chapters.

(4) Any job begun gives that side or chapter credit immediately, and if for any reason is stopped before its completion, and the captains of both sides notified by the next school day, points allowed for that job will be deducted. However, if captains are not notified in specified time, the side of the offending student is assessed ten times the number of points allowed for that particular job.

(5) A copy of these rules will be posted in each agricultural classroom of the county and a copy sent to the parents of each agricultural student.

(6) The following jobs will give credits in points as set opposite:

Jobs	Points
Building farm shop (at home)	1,000
Making self feeder (chicken)	100
Making self feeder (hog)	500
Pruning any tree or vine	20
Spraying any tree or vine (per application)	15
Treating peach tree borer	20
Removing borer with wire or knife (per tree)	10
Building A-shaped poultry coop	50
Building poultry house	1,000
Building farm gate	100
Building grape arbor (per vine)	200
Building doorsteps (per step)	50
Building hog trough	50
Setting any tree, vine, or shrub	100
Painting (per coat per square foot)	10
Making any tool handle	50
Handling any tool	25
Making singletree	50
Care of mule (trimming feet, 15; shearing, 10)	25
Making tobacco bed	100

Building fence (to stand two years) per 100 yards	500
Each \$10 earned and invested in project	1,000
Each separate project (acre or more)	1,000
Each acre of project planted to a legume	
legume winter cover crop	300
winter cover crop	500
Each acre of project planted to non-	

(7) The executive committee may from time to time add on new jobs but these changes must be agreed upon by the agricultural teachers. Subject to same ruling, any objectional job may be struck out, but will not affect any work already done.

F. F. A. Is on the Air

THRU the courtesy of the National Broadcasting Company, a regular broadcasting time has been secured for the Future Farmers of America. Fifteen minute F. F. A. programs are given during the Farm and Home Hour on the second Monday of each month. The first program date was April 13 and for the remainder of the 1931 year the F. F. A. broadcasting days will be as follows:

April 13, May 11, June 8, July 13, August 10, September 14, October 12, November 9, and December 14.

In addition to these regular programs, there will be special features of national interest from time to time which will also have a place "on the air." Such events will include the National F. F. A. Public Speaking Contest on November 17 and the results of the two national judging contests at St. Louis and Kansas City.

General publicity should be given to the broadcasts in local communities. Boys should tell the home folks and get them to listen in, regularly. The local F. F. A. chapter should assume the responsibility for getting people notified and arranging for special programs when practical. A publicity committee appointed by the local chapter should be responsible for getting announcements of the broadcast in the local newspaper.

The correct broadcast time is as follows:

From 1 to 1:15 p. m., Eastern Standard Time.

From 12 to 12:15 p. m., Central Standard Time.

From 11 to 11:15 a. m., Mountain Standard Time.

From 10 to 10:15 a. m., Pacific Standard Time.

The following stations will transmit the programs:

WJZ —New York	WJDX —Jackson, Miss.
WHAM —Rochester	KVOO —Tulsa
WGAR —Cleveland	WOAI —San Antonio
WJR —Detroit	WKY —Oklahoma City
KYW —Chicago	
KWK —St. Louis	WOC —Davenport
WREN —Kansas City	WHO —Des Moines
WRC —Washington, D. C.	WOW —Omaha
WEBC —Superior, Wis.	WDAF —Kansas City
	KSTP —St. Paul
WRVA —Richmond	WBZ —Springfield
WJAX —Jacksonville	WBAL —Boston
WIOD —Miami Beach	WBAL —Baltimore
WFLA } Clearwater,	KDKA —Pittsburgh
Fla.	WLW —Cincinnati
WHAS —Louisville	WPTF —Raleigh
WMC —Memphis	WSM —Nashville
WSB —Atlanta	KPRC —Houston
WAPI —Birmingham	KOA —Denver
WSMB —New Orleans	WFDA —Dallas
KTHS —Hot Springs	WDAY — Fargo
	KPYR —Bismarck

ADDRESS CHANGES

When you move on to that better position, don't fail to notify the publishers of your change of address. Second class mail will not be forwarded and we have no way of knowing that you have moved unless you notify us.

"To Promote Thrift"

ONE of the purposes of the F. F. A. is "to promote thrift." How are chapter advisers interesting their members in this worthy purpose? The Future Farmer Department of Agricultural Education would like to secure statements of devices used by various chapters thruout the country. Write the special editor, H. O. Sampson, College of Agriculture, New Brunswick, New Jersey, and tell him your plan.

The Newton, New Jersey, Chapter, A. J. McConnell, adviser, makes use of a balance sheet by means of which each member's net worth can be determined at any given date. The form is reproduced below:

Newton Chapter—Future Farmers of America

THRIFT PROJECT

Balance sheet as of _____ 193__
Name _____ Age _____

Assets	Liabilities and Net Worth
Cash \$ _____	Notes Payable \$ _____
Bank deposits _____	Accounts Payable _____
Accounts Receivable _____	Net Worth _____
Livestock _____	Total Liabilities and Net Worth _____
Equipment _____	
Total Assets _____	

F. F. A. Hall of Fame

L. R. HUMPHERYS,
State Supervisor, Utah

THE Bear River Chapter of Future Farmers of America located at Garwood, Utah, has established in the agricultural department what has proven to be one of the most outstanding features of the chapter.

A certain part of one of the rooms of the agricultural department is set aside and designated as the "Hall of Fame." This space houses the evidence of outstanding accomplishments of the Bear River Chapter and its members. This evidence includes trophies, plaques, ribbons for grand championships, records of public recognition, photographs of star projects, letters of recognition, and other similar items.

Mr. Mark Nichols, Chapter adviser, and the officers, so far as is known, are the first to originate the idea. It is proving to be a sacred spot in the school building and a definite incentive for an outstanding record.

Pictures of Washington and Jefferson Are Available

SWIFT AND COMPANY, Chicago, are furnishing framed pictures of George Washington and Thomas Jefferson to F. F. A. chapters. The pictures are copies of originals by Gilbert Stuart and are especially fine to hang in the chapter room during ceremonies and meetings. Chapter advisers should secure order blanks from their state supervisors of agricultural education. Swift and Company are to be congratulated on having taken so much interest in the Future Farmers of America.

A system of vocational education in the public schools will help rather than hinder, general education. It will supply in a concrete, practical way the motivation which, as far as the majority of boys and girls are concerned, has been so far either highly artificial or sadly lacking.—John Dewey.

TEACHERS who have some means of duplicating letters, class assignments, examination questions and similar materials are fortunate. Stencil sheets and other duplicating devices have been constantly improved during the past few years and are now extremely simple to use and fairly inexpensive.

In addition to straight typing, it is frequently desirable to duplicate material which contains illustrations. In some cases such illustrations may be drawn free hand and then traced on the stencils; sometimes pictures may be found which are of the proper character and size for tracing; but very often such copies are not available.

A common practice is to peruse publications of all sorts for types of illustrations which may be adequate for one's requirements, present and future. A scrap-book of these will provide a valuable collection of tracings to turn to at all times.

*The A. B. Dick Company, Chicago, has available several sheets of pictures suitable for tracing on stencil sheets and dealing with agricultural subjects. They are willing to send these without charge to teachers using the Mimeograph Process, and I am informed that their Mimeoscope Department is willing to co-operate in the development of a larger number of drawings appropriate to the needs of vocational agriculture teachers.

Tenure in Illinois

H. M. HAMLIN,
Iowa State College

ASSISTANT Supervisor Herbert R. Damisch of Illinois has recently completed a study of the tenure and salaries of Illinois teachers of vocational agriculture which tends to show that experience receives some reward.

The average salary of all teachers of vocational agriculture in Illinois this year is \$2,452. The average teacher with ten years of experience in vocational agriculture in the state is earning a salary of \$2,974. The average nine-year teacher is earning \$2,760. The average eight-year teacher earns \$2,708.

Taken over a five-year period, 1926 to 1931, the ten-year men have earned \$2,928 in comparison with an average of \$2,453 for all teachers and an average of \$2,369 for all teachers other than ten-year men.

There are now 32 ten-year men in Illinois, 12 nine-year men, and 21 eight-year men.

The entire report is available from the State Board for Vocational Education at Springfield. It is entitled "Teaching Tenure in Illinois Vocational Agriculture."

"Vocational education is the greatest immediate means of aiding depression and restoring confidence which the educational world has. We are doing our best thru education to prepare the children of the nation for the right kind of attitude toward the government and toward work, but vocational education is immediately preparing thousands of people for new jobs and for new situations and adjusting them into the new order of life.—Willis A. Sutton, President, National Education Association.

ANOTHER LETTER

I desire to acknowledge your letter of February 20 regarding AGRICULTURAL EDUCATION being sent to me gratis.

I have received the several copies since January 1 and have taken time to read them carefully for the purpose chiefly of classifying them in comparison with the great lot of trash that is being written these days.

I am pleased to report that in your publication I find the highest class material well worth any one's time to read, study, and reflect upon.

You are to be congratulated upon this publication and I trust it will not deteriorate but always be filled with thought-producing material.

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Effect of Vocational Agriculture Training Upon Work in College

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ness of this course in choosing a vocation.

The results of the questionnaire relating to the effect of vocational training upon college work reflected favorably toward the work. Ninety-five and six-tenths percent of those returning the questionnaire believed such work in high school made technical agriculture courses in college easier. Forty-five and four-tenths percent believed such work made related science courses easier and 54.5 percent thought there was no effect upon the difficulty of such courses. Twenty-two and seven-tenths percent believed academic courses to be made easier by such training, 59 percent thought academic courses were not affected and 18 percent believed them to be more difficult as a result of such training. *Everyone replying believed vocational training in high school to be helpful rather than a hindrance to their college career as a whole.* Because of the limited data and opinionated nature of this phase of the study it is indicative rather than conclusive. And yet it does reflect a favorable attitude towards the work on the part of those who have taken it and later continued their education in college.

Many other conditions of interest to the teacher of agriculture were brought out by the study, a few of which follow herewith:

There is a decreasing percentage of students presenting the minimum credits in vocational agriculture for entrance and an increasing percentage are presenting the maximum or near maximum.

About 40 percent of all students in the Missouri College of Agriculture present credit in vocational agriculture and this proportion has remained practically constant for the past five years.

Grades of vocational group exceed those of the non-vocational group by a wider margin in animal husbandry and field crops than in other enterprises.

More vocational students take animal husbandry than any of the other four courses; more non-vocational students take horticulture than any other course.

A greater percentage of vocational students present 4 units of credit than any other amount; 5 units ranks second; 2 units ranks third; 6, fourth; 3,

fifth; and only one student presented but 1 unit of credit, during the five-year period.

In view of the findings of this study the conclusion seems entirely justifiable that altho *vocational agriculture is not taught as a college preparatory course, such training probably increases, and certainly does not diminish the chances for a successful college career in the field of agriculture.*

Questioning to Encourage Thinking and Understanding

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notice any steps in the demonstration where you feel improvement might be made, and so forth?" This question tends to overcome the admitted weakness of job analysis which, as such, merely perpetuates the status quo and therefore does not provide for or encourage progress. So in every—well, in nearly every—use of job analysis, it is worthwhile to challenge the thinking of the class to seek ways of improving the best that has yet been done. This is the lesson of centuries of progress. Just a small improvement here or a change there has brought most of the present out of the past. So this question seeks, as a supplement to learning what is the best now known, to make each pupil conscious of the fact that even he may attempt to bring forth something a little better than that best. This last question admittedly is not directly a part of understanding this demonstration, but it is a call for thinking about the demonstration with which (thinking) we are very much concerned. Such a question challenges critical thinking, discerning judgment, even, occasionally, creative thinking. What greater justification can a question possess?

For practical purposes then, it seems to me, these seven generalizations or type questions may serve as a guide to any teacher in conducting his demonstrations. They must be applied with ordinary judgment which insures adaptation to the individuals, variety, and graded difficulty. Then, too, to make teaching situations more nearly complete, they must be sprinkled with appropriate interest techniques—references to home situations, experiences of pupils, farmers, and teachers, and scores of other possibilities which the true teacher will recognize. Combine the interest appeals and the thought questions herein described in an environment saturated with the personality of the inspiring teacher and we shall have interest in and understanding of a useful farm job which, when followed with adequate individual participation, will result in manipulative skill, understanding, and consequent retention. These are among our avowed goals.

Insuring Worthwhile Projects

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the work. If they are in earnest, they can usually arrange for a sizeable project somewhere. At any rate, it is better to eliminate an occasional one if it is apparent that he is in no position to carry a project, and do it before he gets into the class, than to permit him to have a miserable project, such as a dozen chickens or a garden patch which will detract from the whole program.