This Issue Features... Better teaching and learning

Mississippi Farm Veteran
(See Page 71)
A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by Interstate Printers and Publishers, Danville, Illinois.

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A professional attitude

As one with an interest in the vocational agriculture program, have you investigated the possibilities and advantages made available to you through the specialized, technical, and practical program of your vocational teachers association? Our associations have much to offer the professional-minded.

The physical set-up of the program in West Virginia is extremely flexible and adaptable, operating as it does as an affiliate of the State Association. This is further broken down into regional units, which meet in conjunction with the elected presidents and delegates of the F.F.A. from the same region. The joint meetings provide an opportunity to present the national, state, and local programs simultaneously and to coordinate these programs without duplications of effort or anticipated results.

The varied activities and frank and open discussion of the same, aided by the technical professional help afforded the body by its national affiliates provide clear and concise answers to the questions of professional attitude.

If your attitude is professional you are availing yourself of all of these advantages and voicing your approval or disapproval of the work of the associations in a democratic way. If not, perhaps a personal check is necessary to determine your attitude and how it is affecting you and your work.

A high school principal recently told me that he would pick out the teachers with a good professional attitude by the discipline they commanded, by the general appearance of the classrooms, and by their cooperation with the other teachers and principal.

Close affiliation with your professional associations will make you hold your head a little higher, and keep your shoulders a little straighter in your profession. In mingleing with others of our profession at a meeting, we get a feeling of security and pride and a renewal of our faith in our work. It is the same kind of feeling one gets by dressing up on Sunday and going to church and rubbing shoulders with his neighbors.

Chester B. Huet
President West Virginia Vocational Agricultural Teacher's Association

Direction through training

We insist in vocational education that 'learning to do' results from 'doing', or guided participation. Shall we assume that this principle is as directly applicable in the training of teachers as it is in the preparation of a boy for farming? If so, we bring the critic teacher or supervising teacher very much into focus.

Are we giving sufficient recognition to the importance of the critic teacher and the critic teaching situation in the program of vocational agriculture? It is the writer's opinion that over seventy-five per cent of what a prospective teacher will be as a teacher, as far as training can be given, will result from the pattern and procedure of performance learned in critic centers under supervising teachers. Note that this statement is qualified by the phrase, 'as far as training can be given.' It must be admitted that individuals differ in that some will become better teachers than others by reason of native characteristics. Granting this, the most important remaining factor in the future performance of a teacher is the preparation obtained in the critic center.

Take the following problems for purpose of illustration: the use of an Advisory Council, planning for teaching specific

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Applying psychology to agricultural education

RAY H. SIMPSON, Teacher Education, University of Illinois

During the past few years teachers of agricultural education have expressed concern to the specific nature of the fact that graduates of our high school vocational agriculture classes have not in many cases carried over into farm practices those procedures and principles which were learned in the high school classes. More specifically, these teachers have been concerned with such questions as the following: Why are sanitation practices, especially with regard to swine and poultry, which are "learned" in high school not practiced nearly as thoroughly as we would expect or desire? Why are poultry cutting practices not used to the degree we would like to have them used by the high school graduate? Why are castration and vaccination frequently delayed long beyond the appropriate time? Why are registration papers frequently not kept up on pure bred stock? Why are commercial feed mixtures sometimes used instead of more economical home mixed supplements?

We do not pretend to have any complete answers to these questions but do propose to suggest some possible approaches for improvement. In general, these suggestions involve the use of even more psychology and more democracy in agricultural teaching. We hasten to say that, in our opinion, vocational agriculture classes have already gone a long way in the use of psychology and in the practice of democracy. We are simply attempting here to push along psychological and democratic practices already well started in this field.

Key To Better Teaching

The experimental evidence of Kurt Lewin and others indicates democratic practice is good psychology. Stated another way, we have definite evidence that the application of psychology to education involves to a large extent the increasing democratizing of our teaching-learning practices.

Since democracy is of key importance, a consideration of its meaning here is desirable. In general, we may give this definition of democracy in a psychological and educational sense: democracy is having an educational situation where learners assume a guided, but larger and larger share, in decisions which affect them. If we have an area where the teacher has made decisions almost exclusively, this does not mean that such decisions should be turned over to the learner entirely. It does not mean, for example, that if the teacher has been selecting almost all resources which learners are expected to use, such decisions would be turned exclusively over to the learner. Such pseudo-democracy would put the teacher in a position of abdicating his job of teaching. Rather, it is proposed that such decisions be made by the learner with the guidance of the teacher. In this way the learner becomes increasingly able to make such decisions on his own.

Course Building

Consider your own high school classes: How much share (any practice) did students have in deciding what units would be studied? In getting resources for class use? In diagnosing needs? In planning class and out-of-class work? In leading discussions? Students learn only what they practice. Are we helping them practice many key parts of the learning process?

Let us take up some specific areas where the learner may have an increasing share in planning decisions which affect him.

First of all, let us give learners an increasing share in planning the total framework of a course. At the present time we find evidence in agriculture course syllabi that the learner is given considerable opportunity for planning within a unit. This is all for the good, quite democratic, and sound psychologically. However, we are proposing that not only should the learner have a share in decisions within a unit that has been selected by the teacher, but that the learner also have a share in the overall framework of the course in which decisions are made as to the organization of the course itself. Let us examine what would seem to be a typical Agriculture II organization for a second year sophomore high school program. It is set up in 11 units as follows: (1) project program work, 5 days; (2) swine production, 30 days; (3) dairy production, 30 days; (4) beef production, 20 days; (5) sheep production, 20 days; (6) horses, 10 days; (7) poultry and egg production, 15 days; (8) grain judging, 10 days; (9) daily judging, 15 days; (10) contouring, 5 days; (11) special shop tasks, 20 days—total 180 days. We may accept the first unit as probably necessary unless learners have some overall course planning practice in the freshman agriculture course, or in other courses.

Specific Proposals

From there we would suggest some possible changes to get overall course patterning more sound from the standpoint of psychology and democracy.

First, we would anticipate that all learners at any particular time would not need to be working on the same unit. Much, or even all, of a particular learner's out-of-class work might be on different problems from those being worked upon by any other particular learner. We believe that some of the studies in vocational agriculture indicate that many in our classes actually do not plan to continue with agriculture as a vocation. Rather, some are taking it as likely a vocational training or as precollege work of some sort. This difference in purpose and probable aim on the part of students in the class would seem to indicate a need for individualizing the out-of-class work to a considerable extent. Such individualizing of the work may necessitate a new look at our conventional patterning of agricultural courses.

Second, a class committee might help the instructor plan the arrangement of class procedures and out-of-class work for a specified period of time. Under such a set-up where the teacher and learners cooperatively plan the overall pattern for the course, it is quite true that a specific teacher imposed pattern could not be laid out in advance. Rather the pattern for the work of the course would develop as the teacher and learners get farther and farther into the course.

Third, an attempt would be made to stimulate out-of-school conditions where the farmer does not have a schedule of study set up for him. Rather, he is in the position of deciding, (1) whether he will continue with systematic study at all; and (2) he has to be able to plan such systematic study as he will carry on. This means that if we set up a specific set of units for a course we may actually be training the prospective farmer to depend upon the vocational agricultural teacher for the mainspring to motivate him in learning. When he is out of school and he no longer has the vo-ag teacher to plan his II units of study during a semester, it is quite possible that systematic study will stop.

Objections may immediately be raised to such democratizing of the course structure. For example, someone may say, "Yes, but the students don't know (Continued on Page 64)
Repetition . . . a neglected friend

W. F. STEWART, Teacher Education, Ohio State University

In our concern about good teaching and mastering the best procedures, we pay frequent lip service to, and make reasonably good application of, four important factors found in good teaching, the needs of our pupils, the interests of our pupils, and the thinking and understanding developed in our pupils. To the extent that these factors are appropriately incorporated into our teaching procedures, we need not be said to be good teachers. Or, at any rate, there is abundant evidence that these factors should be used. But, there is a fifth factor—often overlooked and in many cases even by-passed. It is this factor that I wish to call to our attention and ask for a more appropriate, intelligent use of it in our regular teaching procedures. I have chosen to call it "repetition, if necessary, for fixation."

A Common Experience

By way of justification of the factor, I need only refer to your experience as a teacher in giving your first written examination and then reading the responses of your pupils. Were the fundamental teachings which your written lesson was supposed to test sufficiently well fixed in mind that your pupils had retained them? The negative answer is all but unanimous. We, therefore, need to be concerned with additional measures that will have as their objective assisting our pupils to retain the useful, the functional, the practical, the essential knowledge that they are brought into contact with in a discussion of the problems in the classroom but which are not, by those discussions alone, sufficiently well fixed in the minds of our pupils that they are retained for use in meeting life's needs.

In order that this factor, repetition, may be properly incorporated into our teaching procedures, we need to give particular thought to two aspects of the situation. First, what is worthy of repetition for fixation and second, how shall it be done, what techniques or devices shall be used?

Let us consider the first aspect. It is well to call to mind the various devices that might be listed to provide repetition experiences. Our thinking readily calls to mind the summary we give at the close of a lesson, the review which may be given before continuing the discussion of a problem to call to mind what has already been accomplished, the written quiz which is sometimes a written summary or a written review, or a life situation calling for the application of some fundamentals from a recent lesson. Also drill, practice and memorizing are terms that are usually defined as containing the elements of repetition.

With these terms in mind as procedures in providing repetition, we might ask—What are some of the errors which we have experienced as students in the wrong use of repetition in our own educational experiences? Some will say that they were drilled on material that was not functional or worth remembering, others will say that we were required to memorize when we should have been taught through associated learning which very appropriately results from developing understanding; others will say that they were drilled on this or reviewed that without being properly motivated. They were just uninteresting tasks that had to be carried out.

These answers give us clues concerning the nature of what we should base our repetition on. It is the functioning knowledge or facts, the technical facts, some of the practical facts, some of the experiences of this kind or that have been used in the teaching situation which we wish our pupils to retain forever and a day in order that they may be able to recalls them for use in later applications in life. Where do these facts appear in the normal teaching situation? I am going to assume that each of you are familiar with three common types of problem solving situations and I shall refer to them merely by title as follows:

1. The forked-road situation
2. The possibilities—factors chart
3. The situation to be improved

Examples of these three types are as follows:

1. Shall Fred fall plow or spring plow his clover field for his corn project?
2. Which variety of hybrid corn shall Harry order for his corn projects?
3. What improvement shall we advise Jim to make in his sheep pen where he will winter his breeding ewes?

In directing the pupils to decisions in these three pupil situations, the procedure in the first two types is to call for the facts, and the relevant facts which may include technical facts, practical facts, judgment ratings and calculations based upon practical data.

In the third type, the thinking procedure is to direct the pupils to a statement of the objective or goal in the problem situation, that is, what is your objective in winter housing of succeeding ewes?, and then ask why this with the characteristics or requirements of a good sheep barn, including the reasons for them, a detailed statement of Jim's situation with respect to each of these characteristics or requirements and, finally, in the light of the requirements and of Jim's situation, making specific recommendations as to what he shall do.

What Is Worthy of Repetition?

With this brief review of problem solving situations and the procedures ordinarily followed in good teaching in directing the boys to ascertain the needed facts and make the decisions, we are now ready to determine just what information the boys have used which is worthy of repetition that it may be fixed in mind for use in later problems.

Our question No. 1 is what facts, technical or practical, that the pupils are directed to recall or find out for themselves and use in solving the first two types of problems, would you want them to remember for later use? Your answer to this question gives you your clue to what you will need to emphasize on repetition. My answer is that they certainly should remember the facts that are to be used not only in solving Fred's problem and Harry's problem but in making decisions of the same kind but in different situations, one year or two years or several years later. In Harry's case, he will need to make the decision a year or two later concerning the hybrid variety that he should buy and he should probably use the same factors that he has used this year, but the facts may be considerably different by that time. So, this gives us one answer to our question of what shall we ask our pupils to repeat for retention. Are there any technical facts or practical facts that were introduced in the discussion of each factor that should be remembered? Well, in Harry's case it seems to me that the specific facts concerning the particular variety of seed corn which he selects this year might well be repeated, not that they will be remembered for ever, but these facts give him the reason why he is choosing this variety for this particular year. You may not agree, but many teachers will, and this gives us our second facts for repetition. Some will say that there are certain technical facts such as digestible protein percentage or nutritive ratios of certain rations which they would like to have their pupils keep in mind,—if not specifically, at least approximately. So, when these are used in solving a problem they become additional facts repetition of which might well be provided.

In this connection, I would like to refer to my article on "Making Generalizations—A Fundamental Value" in the issue of this magazine, April, 1947, and say that in general, the facts which are used in solving a particular problem which classify as generalizations—prin- (Continued on Page 69)
The cabinets in which the visual aids are stored. In the top left, opaque material is stored in the bulletin boxes, one box for each enterprise. On the shelf just below are stored the slides in slide boxes and the film strips are on the bottom left. On the right are stored actual specimens.

Organizing visual aids

G. C. GUILLIAMS, Teacher, Riner, Virginia

As we think of the use of visual aids in teaching vocational agriculture, we can immediately visualize the enormous amount of visual aids and visual aid material that is available but is not recognized as such or is stored where it cannot be found. In either case, the result is the same; these aids that are available are not being used. I realize this, as much as any teacher, as it was true in our department; however, we are in the process of arriving at a solution to this problem. The following description is what we have done at the Riner high school department of vocational agriculture to organize these visual aids in order that they may be more useful.

Classification

We have used the bulletin "Suggested Teaching Units in Vocational Agriculture" by C. E. Richard, Virginia Polytechnic Institute, in organizing the teaching material in our department. In this bulletin are listed all the enterprises and practically every job or teaching unit under each enterprise that will be taught by any teacher in the state. The enterprises are indicated by Roman numerals and the jobs are indicated by Arabic numerals. As an example, Roman numeral I indicates corn and Arabic numeral I under corn indicates the job "Determining the Acreage." Arabic numeral 2 indicates "Selecting the Land," and so on. This is a very good way to classify visual aids and teaching materials to facilitate locating them when they are needed. We have used this system to classify all lesson plans, film strips, slides, opaque materials, charts, and actual specimens in the department and when this is completed every teaching aid in the department will be marked according to this system. These teaching aids are listed on a small 5" x 8" card file, having a card for each job and index cards to separate the enterprises. These cards are marked off in columns for the different types of teaching aids with the name and number of the enterprise and job listed at the top. The card is 5" x 8" and is headed as follows:

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<thead>
<tr>
<th>Enterprise</th>
<th>Job No.</th>
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<td>Date lesson plan was revised</td>
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Reference Books, Bulletins, etc. | Specimens and Materials | Charts | Film Strips | Slides | Opaque Materials | Other Visual Aids |
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Space Requirements

During the spring of 1949, we were fortunate enough to secure funds for an office extension which was completed in March. This need was established when two veteran classes were started and more office space was needed for the additional teachers. This office is 10ft. by 20ft. and on the one side there was a 12-foot blank wall. In this space cabinets were constructed to provide space to store visual aids. The bottom part of the cabinet is 30 inches high with a 24-inch flat top with sliding doors underneath. Over the flat surface, cabinets with glass doors were constructed into pieces 3/4" x 9/4". The original size of this board is 4' x 8' which makes 70 pieces, each piece costs approximately 3¾ cents. Pictures are placed on both sides of the board. They are stored in bulletin box as provided for each enterprise, and placed on a shelf in the closed cabinet. The name and number of the enterprise is listed on the outside of the box, and the pictures are numbered numerically with each job and the enterprise and job number is marked on upper left corner of the cardboard. The number of the pictures is listed on the file cards under the jobs with which it can be used.
Effective use of audio-visual materials can improve farm veterans' instruction

CHESTER B. DAUMITZ, Farm Veterans Teacher, Augusta, Wisconsin

ONE of the problems constantly being met with in presenting effective group instruction to veterans classes is that of holding the interest of a class wherein the diversity of educational attainments is great. A typical class may have young men whose formal educational achievement ranges from the upper elementary grades to whose who have had some college work. It is not at all unusual to find that a majority of the class has not finished high school. This is not the only example of diversity found in veterans classes. The age of the members usually ranges from the early twenties to over forty. It is to be expected that reading skills and study habits are not highly developed in some cases. On the other hand some individuals are avid readers and have keen powers of observation. The problem is this: How can one present instruction to this diversified group that will hold the interest of all, rather than going "over the heads" of some or equally as bad, boring others with elementary facts and principles? Some educators like to classify teaching on three levels as to its effectiveness. In order of their increasing values they are the lecture, (hear it), visual, (see it done), and of course the experience method, or, do it yourself. The latter method is used for instruction on the farm and of course is admirably suited for that purpose.

Classroom instruction may be made alive and vital to all by various means. A magnetic personality of course will take command of any class. Visual instruction properly used will make the class period profitable to every member. We have found that the use of sixteen mm. motion picture films is an excellent method of increasing attentiveness of these young farmers. Our classes start at 8:00 in the evening and by that time many of these men have finished a day of hard physical labor. They are not particularly enthusiastic about a two-hour lecture period. Class discussion properly guided gives much better results and if the evening is topped off by a good film we can usually call it a success.

Relate to Lesson

The more advanced members will observe closely to check techniques with which they may already be familiar and the members to which the subject matter is new will be fascinated by the lesson in action.

However, let us be sure that it is a LESSON. Precautions must be taken to avoid any suggestions that the film is being introduced into class time for entertainment value. Long range overall planning is absolutely necessary if a program of audio visual education is to be successful. Using our experiences at Augusta as a criterion my suggestions to a veteran trainer who wishes to set up an audio visual program are as follows:

1. Make arrangements for the use of a better class 16 mm. sound in film projector. If your school does not already have one the Board of Education may purchase one if the overall value of it to the system is explained.

The card file in which the inventory of teaching aids are kept. The thirty-one index separators are used to separate the different enterprises. Filed under each enterprise is a card for each job under the enterprise, and on this card are listed all teaching material in the department that can be used for that job.
Characteristics of good teaching
of young farmer classes

DON M. ORR, Teacher Education, Oklahoma A. & M. College

It may be well to mention some of the prerequisites for good teaching of young farmer classes before we discuss the characteristics of good teaching for this group. One important prerequisite is for the teacher to know the individuals he proposes to teach. Useful information about the individuals may include personal items such as: (1) the degree to which the individuals have become established in farming; (2) difficulties they may be having in getting a start as farmers; (3) how the individuals are getting along with their parents; (4) their status; and (5) the agricultural problem or problems of current interest to them. We will not take time here to consider how this information may be secured, or how it may be used.

A second prerequisite for good teaching is embodied in the personal qualifications of the teacher. He needs adequate training in technical and practical agriculture and culture and related fields. It is essential, also, that the teacher possess the ability to gain the respect and confidence of young farmers, to sense their interests and needs, and to stimulate and encourage them. In addition, the teacher needs the courage and initiative to try new things, and to continue his efforts, despite discouraging setbacks.

Now to turn to the subject. Good teaching is not judged solely by the manner or method of teaching. It is concerned with what to teach as well as how to teach it. What to teach is often a more baffling problem than how to teach. The teacher is continually confronted with such questions as what knowledge is of most worth? What skill or ability is of most value? What will hold the interest of the group or the individual student?

Good teaching of the young farmer class ordinarily starts with a point of interest, a recognized or felt need of the group. The learners must have the satisfaction of feeling that they are getting help in solving the problem or problems of paramount concern to them. It is entirely possible that the problem of interest to the class may seem of minor importance in the judgment of the teacher. Nevertheless, the point of interest must be given the consideration. The ability to make effective use of a recognized need as a starting point in teaching may greatly influence the success the teacher has in initiating and continuing a program of education with young farmers.

Good teaching is more than a series of meetings on problems or jobs of current interest. Effective teaching stimulates the individual to question his own ideas, to question the practices, methods and management used on his farm, or, in the case of the young farmer, his parent's farm. Questioning of ideas or ability to evaluate they may be helped by a teaching procedure that involves comparisons and contrasts. Some of the material that could contribute to the development of the ability to evaluate may be presented in the class room. Equally effective teaching for this purpose, however, may be done by taking the class, or a teacher and his students, on field trips to see practices that have been used and the results obtained. Such experiences provide the learner a basis for evaluating his own work or his own ideas.

Learner's Satisfaction

Effective teaching does not stop with the learner merely attempting to evaluate his own practices or management. The learner needs the satisfaction of feeling that he is making progress in acquiring new abilities that he can use in solving present problems or problems that may arise in the future. Members of the young farmer class are not likely to find much interest in a mere repetition of materials covered in high school. Ordinarily they may be expected to show sustained interest in a practical consideration of more advanced problems.

Effective teaching involves a maximum of self activity on the part of the learner. Good organization of the young farmer group is necessary if the teacher is to have maximum participation in learning activities. The organized group may make valuable contributions to the test and development of instructional program. Other phases of desirable self activity may be included in cooperative activities. The cooperative activities may include only members of the young farmer group working on a problem of common interest, or they may cooperate with other groups on a community, county, or state basis. The function of the teacher is to help the group recognize the advantages, limitations and difficulties of cooperative effort directed toward the accomplishment of a specific purpose. The young farmer class may be the proper place for all details of the cooperative effort to be worked out, but after it is organized and functioning it may no longer be a matter of concern to the class as an organized group. Good teaching does not imply that the teacher assume the burden of directing or managing a cooperative. On the contrary, good teaching implies the development of leadership that can and will assume responsibility.

Members of the young farmer class may make very desirable contributions to the teaching of the class if they are properly organized and directed. Following are a few illustrations of activities that may be performed by individuals or committees: (1) plan and direct field trips; (2) carry on a herd testing program; (3) secure outside help for class meetings; (4) collect and test soil samples on home farms or as a part of a community program; (5) plan and put on demonstrations; and (6) secure information and make reports on special problems or parts of problems. Delegating such responsibilities to individuals or committees may relieve the teacher of much detail work. It has the further advantage of causing the individuals concerned to feel that they are important to the group. Such a procedure may slow things down for a while, but a number of teachers have reported that this method is quite satisfactory.

In the discussion above we have indicated some use of the experience of members of the group in teaching young farmer classes. This is important and should be given careful consideration. The following list suggests additional uses and values of group experience: (1) it may stimulate and vitalize discussion; (2) suggest new problems for study; (3) help in analyzing a problem under consideration; (4) indicate the need for field trips or demonstrations; (5) contribute to the solution of a problem under consideration; (6) help to verify or establish an approved practice; and (7) contribute toward interest and ability in discharging the duties of a good citizen.

An important contribution to good teaching of a specific job or problem is (Continued on Page 60)
Methods with adult farmers

C. D. RICHARDSON, Teacher, Stevenson, Alabama

There is nothing new about adult education, but for various reasons there is an increased interest in adult education within our community. A survey showed that two out of every four adults would like to enrol in some form of adult education if they could do so.

In this part of Alabama, Jackson County, Stevenson Community, we are having leading farmers from other communities attend our meetings and ask, in many cases, for the same kind of program to be organized in their communities. Time limits the number of communities to be served during the year, however. I try to alternate with meetings in different communities over the school district. At the present time I am meeting with three groups for organized instruction.

Where should the evening school be held? This is one of the first decisions which must be made by those persons who are responsible for the vocational agriculture program in a community. There are many possible places where groups of adult farmers may meet for systematic instruction in agriculture: rural school buildings, churches, community houses, homes, poultry houses, barns, on the farms, and in the fields of the farmers. I think the fields provide places of importance and interest to the farmers. Here many timely problems can be explained and demonstrated with much more effectiveness than could ever be possible in the classroom.

It may be the best policy to have the first evening schools at places other than the all-day department for a time. Then it may be transferred in some future year to the local school, which should be established in the minds of the farmers as the center of local leadership in agriculture education.

In one of the schools in our community we have an enrollment of 35 adult farmers. Twenty-five are owners of their own farms; 10 are renters. All are general farmers. Age ranges from 21 to 60. All have had similar experiences and problems. Opportunity for success with a group of this kind is sure. Everyone works hard to help with committee assignments or other duties that might be necessary for him to perform.

Elements of Success

To have lots of success with a group, it should contain individuals who have need for the same type of instruction and who have similar interests, aptitudes, characteristics, and spirit of cooperation.

Farmers profit from lessons carried on in a natural setting. Pleasant Grove Evening School includes farm tours and field trips as a regular part of their instruction.

Therefore, I think the teacher should choose his educational procedures, whether informing, instructing, holding a conference discussion, field meetings and tours, or combination of these, with a view of meeting the common and immediate needs of each group of farmers assembled wherever they may be.

My interest is in the future because I am going to spend the rest of my life there. —Charles Kettering

ers really appreciate your walking through the plowed ground to see them. Many times they are very busy; in those cases you do not need to take up their time but just ride the tractor with them and help some with the job they are doing. Farmers are very sensitive to strangers in agriculture work, especially if they shy from a little grease or go about the job with fear of getting their shoes soiled.

Since evening school work is designed to deal with adult farmers, the procedure used in teaching should be adapted to their characteristics and needs. This most important characteristic consists in the possession of a large fund of practical experience together with the self-reliance that goes with experience. The most important needs from an educational standpoint, consists in: (1) new information as to farm conditions and farm practices resulting from experimentation, use of new machinery, market demands and facilities, and transportation; (2) instruction in certain management jobs, and, in some cases in certain operative skills; and (3) opportunity to discuss their common problems and pool their experiences under the direction of a competent group leader.
Housekeeping in the farm shop

Specific suggestions as well as principles developed in the interests of good learning and teacher efficiency

DAVID HARTZOG, Teacher Education, State College of Washington

One of the most common comments by school administrators when consulted about farm shops is, "Is there anything about keeping that shop clean?" In discussion by teachers of agriculture, the school janitor usually comes in for his share of abuse, and some teachers say, "Well, you can either have a clean shop or you can get some work done in the shop." In many departments, shop housekeeping is a problem, yet most teachers agree that a well kept shop has certain definite values.

Educational Values

1. A clean, well kept shop is good public relations. Parents, administrators, school personnel, and other visitors are favorably impressed by the neatness and order of a clean shop. This does not mean spotless, apple pie order. The shop should have a "worked in" appearance but should be clean enough that work can be accomplished in it.

2. More work and learning can be accomplished in a clean, well kept shop.

3. A clean shop tends to develop a good working attitude and morale on the part of students.

4. If each shop class leaves the shop clean, friction between classes that use the shop can be prevented.

Factors in Housekeeping

Who should be responsible for the cleaning job? In some departments, there is no janitor service, and in others all cleaning is left to the janitor. A janitor can hardly be expected to move heavy projects around the shop floor and sweep under them, or to remove the tools and accumulation of trash from the work benches. On the other hand, the instructor is hired to teach, not to do janitor's work, and if he is required to spend many hours a week at cleaning tasks, something is wrong. The janitor should at least take care of the classroom, office, lavatory, and washroom. Many teachers prefer that the janitor leave the shop alone.

The ideal situation is to have a place for everything, and everything in its place. To do this, the places for things must be provided and somebody must put things in their places.

At least five types of storage are necessary.

Lockers for students work clothing. It is unfair to expect students to do a real job in shopwork unless they have work clothes and a place to keep them. The standard five foot metal locker is probably best. Many times administrators may feel that this is an unwarranted expense, and that a row of lockers on the wall will serve just as well. This arrangement never works well because boys will wear work clothes of members of other classes, fail to return them and only friction can result.

Storage space for supplies and materials. The amount of storage space required for materials and supplies will vary widely, but certainly there will be need for storage of small amounts of lumber, paint, steel, welding rod, nails and many small miscellaneous items.

Such storage room should be equipped with satisfactory racks and shelves and should be adequate in size.

Storage for tools. A satisfactory storage space for each tool in the shop is an absolute essential. From an educational standpoint, the tools should be as accessible as possible to the people using the shop—which is a point in favor of wall cabinets. Wall cabinets, with a keyed color system and clearly marked silhouettes of each tool, can work satisfactorily for all the general purpose tools if the instructor will insist on tools being returned. In addition to wall cabinets, a small tool room or combined tool and supply room where special purpose tools are kept, will be necessary. In most situations, the amount these tools are used will not require a tool room attendant but only occasional service by the instructor.

Small project storage. One condition that contributes to confusion is the usual array of small shop projects in various stages of completion. These small projects should be held in the shop at one time. These should have a satisfactory storage place between class periods. Piling and loss of parts can become a serious problem if these objects are left exposed to the curiosity of students. A few small parts, especially those used in the kind of work done by beginning classes may be stored in the shop clothes locker. A few ten- or twelve-inch-foot lockers, one for each two or three boys in the advanced classes, will provide a secure space for such things as machine parts and most of the pieces and sub-assemblies that go to make up a shop project.

Sometimes adequate provision for project storage can be arranged under work benches. In other situations, a bank of large lockers along a wall or in an adjoining room will be best. A space of two feet wide by two feet high by three feet deep will hold a surprising variety of articles. These lockers should be equipped with locks.

Garage space or vehicle storage. In many departments, no provision is made for housing machinery which comes in for repair. Most of the repair or reconditioning is done on sub-assemblies that can be removed. It is therefore unnecessary for the whole vehicle to tie up shop floor space for weeks at a time.

A machine shed, or in some climates an open court, or a combination of the two, which can be locked from public accessibility will accommodate large repair jobs, also chapter owned equipment which too often clutters the shop. It should be an extension of the shop and can be of low cost; construction without expensive heating, lighting, or power supply installations. The success of an adult or young farmer program of farm machinery repair often depends upon adequate shop floor space. A shop floor space of three thousand to thirty-four hundred square feet will adequately serve 70 to 80 day-students, 25 veterans and 15 or 20 adults if adequate storage space is provided and used.

Keeping Shop Clean

Provision of adequate storage space does not keep the shop clean, it only makes cleanliness possible and decreases the work involved. In maintaining a clean shop, it is essential to secure the cooperation of all students. With the proper approach and leadership on the part of the instructor, an upperclass can be guided to devise a rotating clean-up system that will work. Several important principles must be observed and brought to the attention of the group. Some of these principles are listed near the end of this article. Each shop must have a tailor-made clean-up system that fits that particular class and shop. In some situations, different classes may have a different clean-up system; for example, freshmen may not be using the welding equipment and machine tools and will resist being responsible for cleaning them. Below is a sample of the clean-up rules used in one farm shop. These rules were worked out by a class of juniors and seniors and have been used with minor revisions for three years. The clean-up rules are followed in this shop by means of a dial, and a separate dial is necessary for each class.

General Rules

1. It is the duty of every man in the shop to stop work on his job immediately after the signal to begin clean-up has been given.

2. Every man, at that time, is to put away his project or job, and put away the tools and materials he is using or has been using. This means to return them to their proper places. All project materials with which he is working should be placed in his project locker. If bulky objects are to be left on the benches, everything on the floor will be thrown away by the sweepers.

3. The signal to stop work and put away his job will be given 12 minutes before the end of the period. At ten minutes before that time, every man, except the sweepers (only the sweepers are excluded) should be doing his clean-up job. The sweepers (and the (Continued on Page 67)

These rules are examples designed for one specific shop. Many of the explicit instructions included would fit no other shop, but it is the exactness of instructions that makes the plan a success.
Vocational agriculture...

and life adjustment education

BOND L. BIBLE, Supervising Teacher, University High School, Morgantown, W. Va.

The vocational agriculture program on the secondary school level has the primary purpose of developing proficiency in present and prospective farmers. Life adjustment education aims to achieve desired outcomes in terms of character and behavior for all youth in our secondary schools. Life adjustment rests on the economic factor of earning a living. Our work is based on “learning by doing.” Certainly it does fit into life adjustment education.

The American vocational agriculture makes definite contributions toward establishing attitudes and patterns of thinking which form a basis for sound judgment. The enthusiasm and sincerity of the teacher in his work at school and on the farm with the boy can create the same patterns of conduct in the boy. It spurs him to work toward definite goals in life. It is catching.

Supervised Farming Programs

The development of a well-balanced, growing, and sound supervised farming program with the boy—in cooperation with his parents—affords the boy an opportunity to assume responsibility and learn managerial abilities needed in later life. The value of money, of getting along with people, marketing quality farm products, of wise spending, are all brought to play in a sound farming program. The teacher of agriculture needs to spend a great deal of time on the farm assisting the boy and giving advice. Thus, the influence of the teacher on the boy and the home can be a beneficial factor in life adjustment education.

F. F. A. Participation

I would emphasize the importance of having the boys develop a comprehensive program of work for their Future Farmer chapter. The many contests sponsored by the Future Farmers of America organization and the multitude of goals to be achieved in the chapter program of work give the boys a splendid opportunity to develop a sense of personal responsibility. In fact, the Future Farmer chapter offers such a variety of experiences that it affords boys of varying interests and abilities the type of training and development they need.

Boys learn through competitive contests the value of honest labor and effort in achieving a high rating. They learn to speak in public and to conduct their own chapter meetings. Parliamentary procedure practices and contests, which give all boys a chance to participate, afford an excellent opportunity to learn how a democracy works.

Financing an F. F. A. chapter gives members first hand experience on how to conduct a business and how to take care of financial matters, which is vital in later life.

Cooperative activities in the community, such as performing services for farmers, repairing machinery for farmers (with a nominal charge to help finance the chapter), conducting group projects, and numerous other activities, help boys find themselves and make valuable preparation for later life.

Then, the F. F. A. chapter needs to provide recreation through chapter basketball teams, softball teams, parties, games, and cooperative events with the F. H. A. chapter. Parent-son banquets bring the parents and boy closer together in understanding and appreciation of each other’s problems.

The satisfaction of achievement and work well done, such as earning the State and American Farmer degrees, developing a working partnership on the home farm, performing the duties of an officer on the local, federation, state, or national level, all have their effect on the growth, attitudes, and development of the individual.

Out-of-School Programs

A continuous program in vocational agriculture will permit the young high school graduate to enroll in the young farmer class. Here, the individual will be helped to get established in farming and to keep up to date in farming methods. He will have an opportunity to participate in organized recreational and social activities. With the young man established as a farmer in the community, he may later enroll in adult class instruction which will keep him up to date with his fellow farmers in the ever changing agricultural program. All of this instruction is a regular part of the vocational agriculture program in the local community.

Personal Experience

In my short span of teaching vocational agriculture I can see examples of

(Continued on Page 63)

Effective methods in teaching parliamentary procedure

W. D. SUMNER, Instructor Vocational Agriculture, Ames, Oklahoma

I believe the best method of teaching a boy to do a job is to show him how the job is done, and if at all possible get him to do the job himself. I try to follow this method in the teaching of parliamentary procedure.

In the early part of the school year, I have each of my three classes of vocational agriculture organize an F. F. A. chapter within their respective classes. This enables us to have three complete sets of F. F. A. officers in addition to our regular set of officers.

We have one night meeting each month for all the members to meet together to discuss the general welfare of the organization with most of the time being devoted to recreation. Our day meetings are held during regular class hours on the day just before our night meetings. It is in our day meetings that most of the training in parliamentary procedure is done.

I make special assignments the day before our day meetings; each officer is to know his part of the opening and closing ceremony by memory, and all other individuals will be expected to bring in some business. During the meeting I give grades on how well each officer can say his part in the opening and closing ceremony without the use of the F. F. A. manual.

I also give each individual a point for each time he properly presents some business. Each member gets a point taken off if he is caught “out of order.” It works like this:

0—Caught out of order; 1—Business
Johnnie: 111111011=5=C
Tom: 11111111011=10=A
Jim: 110=1=C

After the class is dismissed, I check and find Johnnie has five good points; Tom has ten good points; and Jim only has one good point. Therefore, Tom gets an “A,” Johnnie a “B,” and Jim a “C.”

I have had this system of training going for the past fourteen years, and I believe I have my first meeting to attend in which the students failed to learn a little more about parliamentary procedure.

If a regular night officer is ever absent from a meeting, I have at least three other members at the meeting who could fill in as officers without the use of the manual.
The purpose of the investigation was to discover differences in characteristics among men qualified to teach vocational agriculture who had entered and remained in the teaching of vocational agriculture in secondary schools or in institutional on-farm training for veterans, and those qualified who had not entered teaching or who had not remained in teaching all of the time.

The study was limited to the men who had qualified at Iowa State College from the winter quarter of 1938 to the fall quarter of 1949 to teach vocational agriculture. These years were selected because a study had been made in 1939 of men who had qualified from 1923 to 1938.

Information gathered included occupational pursuits since the individuals had qualified to teach vocational agriculture, their background experience prior to entering college, the activities in which they had engaged while they attended college, their reaction to some of the various programs and phases associated with the teaching of vocational agriculture, some of the reasons for their having moved from one teaching job to another, and some of the reasons for their having discontinued the teaching of vocational agriculture.

Method Of Procedure

The data for this investigation were secured through questionnaires which were mailed to persons who had qualified during the aforementioned period. The names and addresses of the 364 qualifiers were secured from the files in the appropriate offices at Iowa State College.

The qualifiers were classified into three groups: (1) Those who had never entered the teaching of vocational agriculture; (2) Those who had taught vocational agriculture some of the time since they had qualified; and, (3) Those who had taught vocational agriculture all of the time since they had qualified. Time spent in military service was excluded from consideration. This grouping was made for two reasons: to facilitate comparisons between those qualifiers who had continued to teach and those who had not, and to make statistical treatment possible. The statistical measures used were analysis of variance and chi square.

It was found that the men who had qualified in the 1948-49 period comprised a large proportion of the total who responded. It was felt that this disproportionate representation in the number of respondents might result in biased findings. Therefore, the responses from the 1948-49 qualifiers were tested separately from those of the 1938-47 qualifiers. These groups were referred to as the “later” qualifiers and the “earlier” qualifiers respectively. However, all qualifiers were compared as one group also, on the basis of proportion of time spent in teaching since they had qualified.

Findings

Information was obtained from 288, or 79.12 per cent, of the 364 qualifiers. The qualifiers were found to be engaged in 30 occupational areas, an indication that apparently agricultural education graduates are prepared for a variety of occupations. Of those who responded, 92.4 per cent were engaged in occupations which were related to one or both phases of their training: agriculture and teaching.

Many of the qualifiers who had never entered teaching vocational agriculture had entered occupations in which they could use their training. Sales work, agricultural extension, farm management, college teaching, further study, research, and farming were occupations reported most frequently.

For 288 men the mean number of years of farming background experience acquired between the age of 14 and time of qualifying to teach vocational agriculture was practically the same for those who had entered teaching and those who had not entered that field. Therefore, the extent of farm experience apparently was not associated with the qualifier’s choice to enter or not to enter teaching.

The mean number of years of non-farm work experience between the age of 14 and time of qualifying, as reported by qualifiers, was significantly different for some of the groups with respect to the proportion of time spent in teaching. For persons who qualified in the period 1938 to 1947, it was found that those who had remained in teaching all of the time had 4.05 years of non-farm work experience, which was the highest average number of years of experience reported. Those qualifiers who had taught only part of the time reported an average of 2.15 years of non-farm work experience. Qualifiers who had never entered teaching reported 1.09 years of non-farm work experience. No significant difference in the average number of years of non-farm work experience was found in the case of the 1948-1949 qualifiers. When all qualifiers for the total period, 1938 to 1949, were compared on the basis of non-farm work experience, analysis of variance revealed significant differences. Qualifiers who had never entered teaching reported an average of 2.88 years. Those who had taught part of the time since qualifying reported 2.48 years. Persons who had taught all of the time reported 3.86 years of non-farm work experience. Those qualifiers who had more than two years of non-farm work experience prior to qualifying tended to be more likely to enter into and remain in teaching than did those individuals who had a lesser amount of non-farm work experience.

The number of years of vocational agriculture taken in high school was not significantly different for all groups of qualifiers, an indication that the number of years of enrollment in vocational agriculture is not associated with a qualifier’s choice to enter teaching. Of the qualifiers who reported, 39 per cent had had an average of 3.7 years of vocational agriculture in high school.

The mean number of years of 4-H experience for those who reported was not significantly different for the groups which were classified on a basis of the time spent in teaching since they had qualified. Apparently the extent of 4-H training was not associated with a qualifier’s choice concerning entering teaching.

In most instances the main occupation of the fathers of the qualifiers had been farming. Each group in the study reported approximately the same proportional number of cases in which the father had a job other than farming.

The study revealed that there was a significant tendency for men who were married at the time they qualified to enter teaching to a greater extent than was true of single men.

There was a non-significant difference in present marital status of the respondents regardless of groupings made with respect to the period during which they had qualified and the proportion of time they had devoted to teaching since they had qualified.

A significant difference was found in the extent of membership in activities when the data from all qualifiers were compared. Those qualifiers who had taught all of the time since qualifying had less extensive membership in organizations than did the remaining qualifiers. However, it should be kept in mind that men who were married at the time of qualifying had remained in teaching to a greater extent than those who were single. It may be that married men participated in extracurricular activities less extensively than single men. The statistical treatment did not include any plan of control of various factors which may have been associated with remaining in teaching.

Significant differences were found among the qualifiers in the extent of participation in extracurricular activities, including non-varsity sports. Among the earlier qualifiers the group which had not entered teaching reported a significantly greater extent of participation in extracurricular activities and sports than did the groups which had taught only some of the time since they had qualified and those who had taught all
Effect of master's degree on occupational choice

ELDON M. DRAKE, Graduate Student, Ames, Iowa

What effect does the master's degree have on the occupational choice of qualified teachers of vocational agriculture? This question is continually being raised. Questions are also being raised concerning the value recipients of the degree place upon the degree in assisting them in their present occupation.

In an attempt to answer these questions, John T. McIntosh, former graduate student at the Iowa State College and instructor in farm crops, undertook a study for his master's degree.

Purpose Of The Study

The purpose of the investigation was to discover the occupational distribution and opinions toward the master's degree of men qualified to teach vocational agriculture and receiving the master's degree in education at the Iowa State College prior to 1950.

Method of Procedure

The data were obtained by means of a questionnaire and from the graduate records at the Iowa State College. Questionnaires were mailed to 102 of the possible qualifiers who had received the master's degree.

Statistical treatment of the opinions of the qualifiers toward the master's degree consisted of computations of chi square values. The responses of qualifiers who were engaged in agricultural and non-agricultural occupations were tested to discover any significant differences between their opinions toward the value of the degree. The responses of the qualifiers in both agricultural and non-agricultural groups who never entered or were in and out of teaching, or those who continued as teachers or administrators were tested for significant differences of opinion toward the degree.

Findings

Of the 102 forms sent out, 93 were returned. The 93 qualifiers were found to be engaged in 30 different types of occupations. Of the 93 respondents, 86 were found to be engaged in occupations which they were using either their educational or agricultural training alone or together. The remaining 7 were employed in work which was of a non-educational and non-agricultural nature.

There were 63 qualifiers engaged in college or public school work. Of this number 44 were employed in colleges. The remaining 19 were engaged in public school work 7 of whom were employed as vocational agriculture instructors and 2 as combination vocational agriculture instructors and superintendents. There were 12 qualifiers working in educational occupations other than college or public school work.

After receiving the master's degree, 85 of the 93 qualifiers either entered public school or college work as their first occupation, 33 entered college work; 34 became teachers of vocational agriculture; and 16 entered other phases of public school work.

There were 37 qualifiers who entered vocational agriculture teaching at some time after receiving the master's degree. These men spent a median of 4.1 years in the occupation. Of the 30 teachers who were in and out of vocational agriculture 23 left within 5 years.

Of the 93 qualifiers, 34 took additional work beyond the master's degree with 11 of the 34 receiving the doctorate.

Opinions Of Qualifiers Toward The Degree

A comparison of the opinions concerning the extent to which the degree provided opportunity to advance professionally between qualifiers who never entered or were in and out of teaching, and those who continued as teachers showed a significant difference in favor of those who continued as teachers. This indicated that those qualifiers who continued as teachers found the master's degree of more value in helping them advance professionally than did the men who entered other occupations.

The comparison of the agricultural and non-agricultural groups indicated that the non-agricultural group believed the master's degree had provided increased income to a greater extent than those engaged in agricultural work. It should be noted that 8 of the 20 men engaged in non-agricultural work were superintendents of schools. In Iowa a superintendent of schools must have a master's degree.

Conclusions

The fact that a large proportion of the qualifiers had gone into fields other than teaching vocational agriculture suggested that the program offered is broad enough to qualify persons for a wide range of occupations.

It was further concluded that graduate work taken by men who have received the master's degree has not functioned as inservice training for vocational agriculture teachers to a very great extent, inasmuch as only 27 of the 93 qualifiers taught vocational agriculture after receiving the degree. It may be that the work which is offered has not been designed to stress in-service training objectives and hence does not appeal to men who are looking forward to teaching vocational agriculture as a career. It is possible that the men would have been helped as teachers of vocational agriculture, but they may have received more attractive offers of employment in other fields.

Relating to the preparation and WORK OF TEACHERS OF AGRICULTURE

The chief reasons given for not having entered vocational agriculture teaching were: lack of security of tenure; higher salary elsewhere; and desire to utilize the training for purposes other than teaching.

Higher salary was the reason most often checked for a qualifier's having changed from one vocational agriculture teaching job to another. The desire for broader personal and professional experience and self-improvement was the main reason given by those individuals who had discontinued the teaching of vocational agriculture.

No citizen of this nation is worthy of the name unless he bears unwavering loyalty to the system under which he lives, the system that gives him more benefits than any other system yet devised by man. Loyalty leaves room to change the system when need be, but only under the ground rules by which we Americans live.

—John A. Hamah
Effective use of audio-visual materials

(Continued from Page 55)

Sometimes various service organizations will rent theirs for a nominal fee.

2. Learn to operate the projector yourself. You should not expect student operators to make their service available at adult evening schools.

3. Build a library of literature and catalogs of films on agricultural subjects. Ask your State Bureau of Visual Instruction and from commercial sources. Farm machinery, seed, packing, building materials, petroleum, and other firms all have excellent educational films with a minimum of commercialism.

4. Classify the films according to subject. You might have dairy, crops, hogs, beef, soils, etc., with subtitles. This is very important when teaching on a unit basis. You will have from one hundred to two hundred agricultural films to show over a four-year program. The film subject must coordinate with your unit being taught. A unit showing schedule might be as follows:

<table>
<thead>
<tr>
<th>UNIT</th>
<th>CROPS</th>
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<tbody>
<tr>
<td>Corn</td>
<td>&quot;Acres of Gold&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;Under Summer Skies&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;The Miracle of Corn Growth&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;The European Corn Borer&quot;</td>
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<tr>
<td></td>
<td>&quot;The Hybrids&quot;</td>
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<td></td>
<td>&quot;Menance of the Corn Belt&quot;</td>
</tr>
<tr>
<td>Hay</td>
<td>&quot;Its More Than Hay&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;Making Hay&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;Hay&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;Hay Is What You Make It&quot;</td>
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<tr>
<td></td>
<td>&quot;Save Grain with Better Hay&quot;</td>
</tr>
<tr>
<td>Soybeans</td>
<td>&quot;Soybeans for Farm and Industry&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;The Soybean Story&quot;</td>
</tr>
<tr>
<td>Weed Control</td>
<td>&quot;Death to Weeds&quot;</td>
</tr>
<tr>
<td></td>
<td>&quot;Agriculture's New Conquest&quot;</td>
</tr>
<tr>
<td>Seed Treatment</td>
<td>&quot;Lost Harvest&quot;</td>
</tr>
</tbody>
</table>

5. Book your showings on a long time basis. This is absolutely necessary if you expect your film to arrive at the time a particular subject is under consideration.

6. Before running a commercially sponsored film emphasize that it is being shown on a non-promotion basis. Never discriminate between competitors.

7. Preview all films. You cannot relate the film to a particular lesson unless you do so. Titles are sometimes misleading.

8. Instruct your class to observe key points, pertinent information and techniques shown by the film. Clear instructions is the key. Your general question will be: How is THIS particular problem solved in THIS film?

9. Follow all instructions regarding return of film. Return on date specified and forward film condition and attendance report as specified. Sponsors welcome criticisms, constructive and destructive from competent sources regarding their films.

d. Don't over-do it. It is not advisable to show films on consecutive evenings.

Why not use this wealth of valuable instructional material? You will have better class interest and more incentive for one hundred per cent attendance.

The opaque projector provides you with one of the best methods of presenting graphs and charts from textbooks. Identifications of insects, crop diseases, weed seeds, etc., become startlingly clear. Project a corn borer from one of your veterans fields on a six foot screen and your class will never again have trouble identifying its distinguishing markings. Actual samples of diseased crops projected and magnified many times will capture the rapt attention of every trainee. Of course the instructor will have to supply his own sound commentary using the opaque projector. However, it's the type of group instruction that reaches the grass roots. It hits home.

Evaluating the farming program in beef cattle

CONRAD WHITE, Supervisor, Michigan

IN developing this plan for evaluating the results of beef cattle projects in the supervised farming program, the following divisions are included:

1. Objectives of beef cattle production.


a. Never use a film as an excuse for lazy teaching.

b. Stress instructional value, not entertainment.

c. Use good projection techniques.

Be familiar with your machine to the extent that you are able to replace projector lamps and exciter lamps should they burn out. Watch your volume and try to keep the width of the screen at approximately one-sixth the depth of the room.

1. Supervised farming program includes the activities in farming, conducted by students and supervised by the department of vocational agriculture.

2. Production project in beef is a phase of the supervised farming program conducted for education, experience, and profit and including a production cycle of one phase of the beef enterprise.

3. Supplementary farm practices in beef production are opportunities to use parts of the students' production and/or improvement projects in the beef enterprise and which are undertaken for additional experience and for improving the efficiency of the herd of beef cattle on the home farm or a farm on which the student is working.

4. Improvement project in beef production is an undertaking which improves the beef cattle enterprise on the home farm.

Some of the most common phases of beef production found in the supervised farming program are:

1. Cow and calf which is the production of calves from grade or registered cows during the normal cycle of production.

2. Baby beef which is the fattening of one or more calf to be sold at from 10-18 months of age weighing from 700-1000 pounds.

3. Feeder steer which is the fattening of steer calves or yearlings and marketing as yearlings or two year olds and weighing from 800-1000 pounds or 1000-1200 pounds.

The goals in the plan are merely suggestive because of various existing conditions in different localities. However, the objectives should be practically the same for all departments of vocational agriculture and for all phases of the beef enterprise.

In scoring the evidences, check (x) the appropriate column headed 1-2-3. The basis for the scoring:

1. Done very well
2. Done about average
3. Done poorly

After the evidences have been rated a line graph should be drawn to get a graphic picture of the beef enterprise in the supervised farming program.
### Objectives of beef cattle production and the supervised farming program in terms of results

<table>
<thead>
<tr>
<th>I.</th>
<th>Objectives</th>
<th>Evidences that objectives are being achieved</th>
<th>Ways and means of obtaining evidence that objectives are being achieved</th>
<th>Scoring of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To develop abilities needed for proficiency in beef production.</td>
<td>1. The development of long time and annual plans in the beef enterprise.</td>
<td>1. Inspection of these plans by the instructor.</td>
<td>1 2 3</td>
</tr>
<tr>
<td></td>
<td>Suggested goals</td>
<td>2. The use of approved practices in beef production.</td>
<td>2. (a) The boys develop a list of approved practices in beef production, check them the first time used and report to the instructor. (b) Visits to the home farms to observe the practices in use. (c) Pictures of the practices in use.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. To produce 450 pound calves at 8 months.</td>
<td>3. The assuming of managerial responsibilities by the boy.</td>
<td>3. Conferences with the boys and parents to determine the responsibilities assumed by the boys.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. To have 100 per cent calf crop at marketing age.</td>
<td>4. The keeping of records to show that the goals in beef production are attained and on a successively higher level.</td>
<td>4. (a) Inspection of cost accounts and production records. (b) Anecdotal records.</td>
<td></td>
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<tr>
<td></td>
<td>3. To have a disease free herd.</td>
<td>5. The acquiring of an understanding of the principles of selection, breeding, feeding, and management of beef cattle.</td>
<td>5. (a) A conference with the boys about these principles. (b) Pencil and paper tests on principles of selection, breeding, feeding, and management of beef cattle.</td>
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<td></td>
<td>4. To produce 100 lbs. of beef on 500 lbs. of grain and 200 lbs. of hay.</td>
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<tr>
<th>II.</th>
<th>Objectives</th>
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<th>Ways and means of obtaining evidence that objectives are being achieved</th>
<th>Scoring of evidence</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>To develop the ability to earn money in beef production.</td>
<td>1. Annual profits.</td>
<td>1. Notation of summaries to cost accounts to determine the profit.</td>
<td>1 2 3</td>
</tr>
<tr>
<td></td>
<td>Suggested goals</td>
<td>2. Increased net worth of herd.</td>
<td>2. Notation of net worth statements to determine if the value of herd is increasing.</td>
<td></td>
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<tr>
<td></td>
<td>1. Annual profit of 10 per cent on investment.</td>
<td>3. Marketing for best returns.</td>
<td>3. Notation of record as to time of marketing and prices received.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Labor income of $8.00 per hour.</td>
<td>4. Economical use of feeds.</td>
<td>4. (a) Observations and conferences to determine if economical feeding is being done. (b) Notations of amounts of feed for gains made.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. Market calves as feeders at 8 mos. of age or as fat steers at 12-14 mos. of age.</td>
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<tr>
<th>III.</th>
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<th>Scoring of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To aid in establishing a herd of beef cattle.</td>
<td>1. The development of a beef herd in partnership with the father.</td>
<td>1. Determine if there is a written partnership agreement with the father and appraise the agreement.</td>
<td>1 2 3</td>
</tr>
<tr>
<td></td>
<td>Suggested goals</td>
<td>2. The development of a self-owned herd.</td>
<td>2. Conferences with the parents to help determine the boy's ownership of cattle.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. A father-son partnership in a beef cattle herd by graduation time.</td>
<td>3. Foundation cattle.</td>
<td>3. (a) Observing the cattle. (b) Cumulative lists of cattle.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. A herd of beef cattle belonging to the boy, on the home farm.</td>
<td>4. Earnings and investments from the sale of bulls and cows, are increased.</td>
<td>4. Notation of net worth statements and investments.</td>
<td></td>
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<tr>
<td></td>
<td>3. A foundation herd of beef cattle totaling 150 per cent of the stock at the beginning of the year.</td>
<td>5. An advancement toward farming.</td>
<td>5. Note rental or purchase of farm land.</td>
<td></td>
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<tr>
<th>IV.</th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>To improve the management of the farm herd of beef cattle.</td>
<td>1. The use of supplementary farm practices in beef production.</td>
<td>1. (a) The formulation of a check list of supplementary farm practices, check as adopted and report to the teacher. (b) Pictures &quot;before&quot; and &quot;after.&quot;</td>
<td>1 2 3</td>
</tr>
<tr>
<td></td>
<td>Suggested goals</td>
<td>2. The productive efficiency in beef production is increased.</td>
<td>2. Notation of records costs and amounts of gains, and compare with approved standards.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Similar to those formulated for objective No. 1 except that they pertain to the herd belonging to the father.</td>
<td>3. Profits from the beef enterprise are increased.</td>
<td>3. Notation of the costs accounts to determine the profits.</td>
<td></td>
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<th>V.</th>
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<tbody>
<tr>
<td></td>
<td>To improve the beef cattle in the community.</td>
<td>1. Approved practices adopted by the producers of beef cattle in the community.</td>
<td>1. (a) Annual survey to determine the practices adopted and improvements made in beef production. (b) Pictures taken &quot;before&quot; and &quot;after.&quot;</td>
<td>1 2 3</td>
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<tr>
<td></td>
<td>Suggested goals</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>1. Eqns free herds.</td>
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<td></td>
<td>2. 100 per cent use of good registered bulls.</td>
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<td></td>
<td>3. Culling of inferior animals.</td>
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<tr>
<td></td>
<td>To improve the beef cattle on the home farm.</td>
<td>1. Keeping only the best, foundation animals.</td>
<td>1 &amp; 2 (a) Observing the quality of the animals at the farms &quot;before&quot; and &quot;after.&quot; (b) Observing the pedigrees of the herd bull and of cows of a registered herd &quot;before&quot; and &quot;after.&quot;</td>
<td>1 2 3</td>
</tr>
<tr>
<td></td>
<td>Suggested goals</td>
<td>2. Using better sires.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Develop an improvement in the quality of the beef cattle.</td>
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<td></td>
<td>2. Establish a health program.</td>
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*1A portion of the device was omitted hence, this is not as complete as the version submitted by Dr. White. — Editor.*
Applying psychology
(Continued from Page 52)

how to organize the course, the teacher can do it much better." It is true that the teacher can set up a systematic organization better, no doubt; than the learners. On the other hand, if our purpose is to give learners some practice in over-all systematic planning of their learning activities, then we may raise the question: Who needs the practice in over-all planning for vocational agriculture, the teacher or the learners? Is such practice better got if the teacher does it for the learner, or if the learner participates with the teacher in the actual over-all planning of the work of the course?

Support a boy is "learning" to drive a car and the "teacher" says he, the teacher, can drive it better so the learner should sit on the right and watch the expert. No fenders or tires are likely to be ruined but how quick will the boy learn to drive the car?

A Basic Question

Another objection that may legitimately be raised is that if the learners help to plan the activities of the class even to the extent of deciding whether the unit approach itself would be used or whether individualized study approaches will be used, some of the work that would ordinarily be covered if the teacher sets up the pattern, may not be covered at all. This raises a basic question from a psychological standpoint: Are we primarily interested in covering topics and information, or are we primarily interested in stimulating up students and getting them prepared to actually plan and study on their own after they leave school? If we hope for all systematic learning to take place while the learner is in school, then we must attempt to cover everything during our course set up. If, on the other hand, we recognize that there is much that can never be learned in school, then we may be more interested in helping the learner get practice in planning the overall pattern of his study so that he will be in a position to continue systematic learning after he leaves school.

A second primary proposal is that the learner be given more share in evaluating his class activities.

This is closely related to the first proposal in that evaluation may be thought of as a study of where we came from, where we are, and how we got here so that we can plan future activities more intelligently. The idea must be accepted that learners need additional practice in evaluation in order that they may carry on more intelligently after they leave school. Again, it is true that the teacher may be able to evaluate better, but do we want repetition in evaluation for the teacher or learning in evaluation for the student?

The individual student and other learners will be constantly diagnosing the efficiency of class operation. He and other learners will be constantly participating in planning the class activities in which each of them has an important

stake. The individual learner will also be vitally concerned with the setting up and revising of course goals for himself and for the groups in which he is operating.

The learners with the guidance of the teacher will probably attempt to check on the extent to which what has been studied in classes by past students is carrying over on the farms in the neighborhood. What is it that is not carrying over? What are the apparent reasons for lack of carry over? How might the students and teacher change the set up of so that there would be a greater amount of carry over to out-of-school activities?

Marking

In a school situation where marks probably have to be assigned, the learners would participate with the teacher in the processes involved in preparing for marks and in actually assigning marks. This would mean in effect that the learners would set up with teacher guidance the types of goals and procedures upon which they feel these should be marked. In addition to helping the teacher set up the goals upon which learners should be marked, the students would also participate in the actual rating of themselves and of other students. This does not mean that the teacher will not participate in these processes. It does mean that the responsibility for evaluation and marking will partially become a responsibility of the learners themselves who certainly have an important stake in the work. Such a procedure not only helps to clarify aims and goals in a course but also tends to give better motivation and perhaps fairer marks to individual learners in the course.

It is well recognized that we do not know, to a very great extent how such evaluation should be carried on or what marking procedures are best. However, in the interests of sound psychology and sound democracy the learner should participate to a greater extent in these activities than has been true in most of our classes in the past.

Securing Resources

Our third and final proposal to illustrate how more use of psychology and democracy in agriculture can be applied is related to resources. Students should be given more guided practice in getting the resources used in their study.

In some courses the learner is given a list of all resources he is supposed to use in the course. Obviously, such a practice deprives the student of needed practice in learning how to get resources needed to solve developing farm problems.

If the teacher of agriculture takes this suggestion seriously his students are likely to get more practice in such resource acquisition processes as: ordering books from publishers, getting and using such periodicals as are published by Consumers Research and Consumers Union, getting agriculture check sheets and tests, getting national, state, and local government bulletins, getting college of agriculture bulletins, getting ideas from successful farmers, building up a file of successful farm practices, and getting useful materials from libraries.

Summary

Transfer of training from school to out-of-school behavior can be improved if psychological and democratic principles are applied to the teaching-learning practices in school.

Book review

TEACHING AGRICULTURE, by Carole Hammonds, pp. 353, published by McGraw-Hill Book Company, Inc., 1950, list price $3.50. This text presents techniques and procedures for teaching agriculture in elementary school, junior high school, high school and college. Background of educational concepts, philosophy, and psychology for teaching agriculture is briefly but interestingly set forth. Special chapter emphasis on Supervising Practice; Future Farmers of America, New Farmers of America, and 4-H Clubs; Teaching Young-Farmer Courses; and Teaching Adult-Farmer Courses should be of special significance for all teachers in the field of vocational education in agriculture. Chapter emphasis is given Teaching Elementary and Vocational Agriculture; Teaching General Agriculture in High School; Extension Teaching of Agriculture, and College Teaching of Agriculture. All teachers of agriculture, regardless of level of teaching, whether in school or out of school, will benefit from the educational concepts, philosophy and psychology presented in this text. The chapter on Evaluation of Student Growth and of Teaching as well as the chapter on Teaching Agriculture as a Profession were particularly helpful to all teachers in the broad field of agricultural education. While Teaching Agriculture suggests many specific techniques and procedures and principles of both group and individual teaching, it is not intended to serve as a hand-book of teaching devices. Text should have wide and favorable acceptance on the part of all persons interested in teaching agriculture. —A.P.D.

Rural youth conference

A copy of the tentative program is available for this year's conference of rural young people called by Rural Youth of the U.S.A., Jackson's Mill, Weston, W. Va., December 12-15.

Although the program is tentative, the committee has a long list of possible helpers so you can rest assured of a top-notch conference. Additional information may be secured from E. L. Kirkpatrick, Secretary to the Advisory Committee, 210 Fifth Street Marietta, Ohio.

If a task is once begun, never leave it till it's done; be the labor great or small, do it well, or not at all —An Old Saying
Repetition
(Continued from Page 59)

And so, the boys repeat those facts orally and that becomes one type of repetition. The effect on their minds is that the other facts may be disregarded but these should be retained, fixed in mind, for use. The board may then be erased and we proceed to other problems.

A second repetition of the same facts might be called for the next day before we start our next problem. This time it may be written repetition in which the teacher might say, “Let’s see if we got all of yesterday’s lesson that we should. Will each of you now write down the name of the variety of corn which we decided Harry should buy, the factors which we considered and the facts concerning the particular hybrid variety which Harry is to buy?”

And, we have a second type of repetition—a written review, emphasizing the functioning facts from the preceding information. These two techniques, if they are used with judgment in our teaching, will, I am sure, provide a large measure of the repetition that is desirable to help pupils to call the essential from the non-essential, the useful from the useless. More than that, through their occasional use, they will develop in pupils a discerning, an evaluating, mind so that they will recognize that some knowledge is to be retained whereas other facts may be used merely to bring out the facts that should be retained and, that done, may be forgotten.

This, then, is my plea for a greater use of repetition, if necessary, for fixation,—an intelligent knowledge of the techniques that will lead to retained functioning knowledge and will provide the repetition in an interesting and understanding manner.

Vocational agriculture—-
(Continued from Page 59)

former students who have made successful adjustment to their life’s work.
Several young farmers, successfully established, look back to their vocational agriculture work in high school as the beginning of a program which materially helped them to achieve their present status. These young men are leaders in their communities.

In every department we have a number of graduates who pursue occupations other than farming. It is difficult to measure the effect of instruction in vocational agriculture on their life’s work. Several young men who are engaged in non-farming activities have told me that their work in vocational agriculture did much to help them achieve their present life’s work.

One young man is now a university editor and is doing a creditable job. He was the most outstanding F.F.A. reporter I ever had and he felt that the experience he gained while editing the F.F.A. newsletter, an annual publication, and writing F.F.A. news for the local papers had much to do with his later interest in journalism. Another young man is now a critic teacher in vocational agriculture. He said his vocational agriculture work in high school sold him on teaching as a career. An American Farmer degree holder is now an instructor in dairy husbandry at an agricultural college.

Recently I received a letter from a former student who is studying Dairy Production at the Pennsylvania State College. He told me of a former high school classmate who is enrolled in the agricultural education curriculum. These young men are completely thrilled with their preparation for an agricultural occupation. They were reared in an urban center, near a large industrial area. In high school they elected to study vocational agriculture. One was awarded the Keystone Farmer degree; the other was outstanding in leadership activities. Their vocational agriculture work in high school directed them in the choice of a career in which they are intensely interested. In every department similar examples can be found.

Vocational agriculture does function as life adjustment education in our democratic way of life.

Any power must be the enemy of man which enslaves the individual by terror and force. All that is valuable in human society depends upon the opportunity for development accorded to the individual.

—Albert Einstein

Paul McElroy developed direct to consumer marketing as part of his high school farming program. He is now successfully established in farming.

James Fike, American Farmer degree holder, is a College Instructor in Dairy Technology.
Characteristics of good teaching

(Continued from Page 56)

made by the teacher who is adequately prepared. Part of the preparation for teaching a specific job or problem would include (1) up-to-date information on the job or problem; (2) definite plans for the teaching procedure to be used; and (3) facilities available for following the teaching procedure selected. A teacher could not hold members of a young farmer class responsible for outside readings, but good teaching would include encouraging them to read bulletins, farm journals and consult other sources of reliable agricultural information. The constant change in agriculture with attending needs for new information emphasizes the importance of acquainting young farmers with the sources of reliable information.

Extensive use may be made of experiment station work in teaching young farmer classes. This is especially desirable for beginning teachers. Care must be exercised to select experiment station work appropriate to the problem and local conditions, and it must be presented in such a way that the students will understand the conditions under which the work was conducted. The class may need guidance in making the application of the practices used to their particular problems.

Help for the Individual

Most of the discussion presented above has been about teaching the group. It is necessary, however, to do a great amount of individual teaching and counselling of young farmers. They have many personal problems that cannot be satisfactorily worked out in a group. Family relations, partnership agreements, securing adequate financial assistance, obtaining the use of land, leaving home and getting a job are types of personal problems that require skillful counselling and guidance. Much of this work can be done on the farm, perhaps in conference with the boy’s parents. Of course good teaching and a good attitude on the part of the teacher would cause the young men to feel free to call on the teacher any time for counsel and guidance on farm problems or other types of problems.

Supervised farm practice, which is essential for members of young farmer classes, is limited to being commonly accepted in high school. A broad and comprehensive program of supervised farm practice for young men already established in farming is relatively simple. It is important to get young men not established in farming launched into all full participations in all phases of farm work in the training program in order to hold their interest. Close individual work and careful long-time planning may be very helpful in taking young men through the steps necessary for them to become established in farming. A definite teaching situation may be presented by having sixteen, eighteen or twenty-year-old unmarried persons not yet established in farming in a class with men just a little older and married.

Their farming problems are usually a little different and certainly their social problems are much different. We raise the question of the advisability of dividing the group at least a part of the time for the sake of dealing more directly with problems of vital concern to the largest number.

Summary

Briefly summarized, some of the essential characteristics of good teaching of young farmer classes are as follows: (1) starts with a point of interest, a recognized or felt need of the group; (2) stimulates the individual to question his own ideas, to question the practices, methods and management used on his farm; (3) the learner has the satisfaction of feeling that he is making progress in acquiring new abilities or skills that he can use in solving present problems or problems that may arise in the future; (4) provides a maximum of self activity on the part of the learner which is characterized by various types of cooperative activities and contributions to the successful conduct of the class; (5) draws on the experience of members of the class to help discover, analyze and solve problems; (6) makes use of experiment station work and other sources of up-to-date information; (7) directs students to the sources of dependable information and encourages them to use it; (8) provides for individual teaching and counselling of members of the class; and (9) contributes to the development of broad comprehensive programs of supervised farm practice leading to establishment in farming.

Direction through training

(Continued from Page 51)

units of instructions (lessons), becoming acquainted with individual pupils and their home environment, planning supervised farming programs, supervising for the programs, advising, guiding, organizing an out-of-school group, and teaching out-of-school groups. Where and how is the prospective teacher to learn the greatest share of what it will take to go out onto his own job and perform satisfactorily, so far as training can prepare him to do the job? Isn’t ‘learning to do by doing’ as important, here as in any other part of the program of vocational education.

If true, this imposes a greater responsibility and offers a greater opportunity for critical teaching in vocational schools than we seem to have recognized in the past. Can we ever expect to have Advisory Councils used in vocational agriculture departments as a common practice unless we can illustrate and provide practice in their use in critic centers? Will we have outstanding programs as a part of programs of vocational agriculture if trainees don’t find such classes in the program in critic centers and if they fail to receive experience in working with such groups as a part of training? These illustrations can be multiplied indefinitely.

If the assumption implied here is valid we need to give far greater recognition to the critic teacher and the cooperating school than has been done. In the first place such a teacher should exemplify the best program that any State expects of a teacher in vocational agriculture. Administrative relations in the school and community and physical facilities in the department and school should be such as to set desirable patterns for the prospective teachers. There is very little merit in the point of view that the trainee should be trained in a poorly equipped or less than this may be a departure because he may become employed in a similar location later. Very little improvement in our less than average departments of vocational agriculture will come about in that manner.

Careful selection of critic teachers and cooperating schools; teacher workshops; critique programs for critic teachers, and a clearer recognition of the importance of the function performed by critic teachers may be some of the directions in which we need to move.

W. A. Smith, Teacher Education, Cornell University.

A teacher’s one greatest asset is sympathy, the power to feel with his pupils and put himself in their places. Tasks which seem easy to the teacher are hard for the child. Without genuine sympathy one will never become a good teacher.

—H. H. Lowery, Fordson, Michigan

What ever is right or wrong in our world is exactly what is right or wrong in the individual human heart.

—Margaret Leckie
Housekeeping in the farm shop

(Continued from Page 58)

sweepers only) are to remove coveralls and wash up before they do their clean-up jobs. As soon as the sweepers are through at the sink, the alternates may wash up.

4. Do the clean-up job completely, thoroughly, and accurately. Stay with it until it is done.

5. No one is to leave the building before the passing bell, and no one is to leave the shop to go to the classroom until after the five-minute warning bell and approval of his job by the foreman.

6. The key to making this system work depends upon the foreman having complete cooperation. There are ten jobs to be rotated among 15 men. This allows five alternates who will be on rest period if every man is present and unless assigned to duty by the foreman or instructor.

7. Failure to do a clean-up job properly will be disciplined at the pleasure of the class as a whole, upon recommendation of the foreman and approval of the instructor.

Divisions of Jobs

Foreman: Each day the foreman should call the principal's office and see that the shop clock agrees with the main clock in the office, resetting the shop clock when necessary. He shall check to be sure we are running on a regular schedule, assigns the jobs of absentees to the alternates, give the signal to stop work, and be personally responsible in seeing that each man does his job, or do it himself. He shall see that the time schedule is followed by all members and that the portable equipment—such as rolling table, blackboard, hoist, and ladder—is in its proper place. He shall recommend discipline of any slacker.

First Sweeper: Sweep the southeast corner of the shop (forge corner). This means ½ of the shop, not just the corner, extending up to the small grider and to the center of the shop.

Tool Room Carts and Drill Presses: Replace all tools on carts, check them, and return them to the tool room. Wipe off and remove drills from presses, adjust them to normal, and see that the keys are in place.

First Alternate: Do any job assigned by foreman. (Usually first absentee).

Second Sweeper: Sweep the north-west corner of the shop. This means clean under benches and power tools and includes down to small drill press. Check all brooms and garbage cans for proper place.

Forges and Power Tools: Dust off forges, remove clinkers, soak a small pile of coal and put all forge tools (including anvils) in proper places. Dust off grinders and lubricate them in your week. Adjust tool rests, dust off saws, lathe, and jointer and check adjustments. Raise bench saw table until saw is concealed and be sure ripping fence and cut-off stop are in place. Replace any broken parts or obvious mis-adjustments.

Second Alternate: Do any job assigned by foreman. (Usually second absentee).

Third Sweeper: Sweep the northeast corner of the shop. See that the big door is closed and locked, broom put away, and refuse in cans. Corners shall be clean and all unnecessary rubbish removed.

Yellow and Blue Cabinets and Wood Benches: Benches are to be in proper places, all materials removed, vises closed, and benches dusted. All tools properly hung in cabinets approved by foreman, doors closed but unlocked with lock on the hasp.

Third Alternate: Any job assigned by the foreman.

Fourth Sweeper: Sweep the southwest fourth of the shop, including under the benches. See that towel can is in order, and put away brooms.

Welding Equipment: Note the amount of gas left in tanks, and if low notify instructor to reorder. See that gas welder is properly closed down, all accessories hung in cabinet, cabinet checked by foreman, and door closed. Dust off welding tables, remove junk, put welding rods in containers. Wind up the D.C. leads, check the helmets, and stack the scrap pile neatly.

Fourth Alternate: Assigned jobs by foreman.

Red and Orange Cabinets and Steel Benches: Check cabinets to be sure all tools are wiped and in place. Have foreman check them and close the doors, but do not lock them, hang the locks on the hasp. Fill oil cans with proper grade of oil when empty. Dust off and clean-up all metal working benches, and wipe or wash up any grease and oil. Remove all junk.

Fifth Alternate: Any job assigned by foreman, usually that of assistant foreman. You will be foreman next week, so keep your eyes open.

Basic Principles

You, no doubt, have noted that the instructors are stated very specifically and that responsibility for each little task is clearly placed on some individual. Several of the most important principles which should be embodied in such a clean-up system are:

1. Responsibility placed on someone to give the clean-up signal and be sure that class does not end without warning. To have class end early, due to an assembly or a shortened school schedule for the day, will leave the shop in a mess.

2. Have fewer jobs to do than there are members in the class, so that when one or more boys are absent, there is an alternate to do those jobs.

3. Stagger the times at which boys are to wash up and change clothes. This prevents crowding at the sink and if sweepers are allowed to wash and change first, the benches may be brushed down before the floor around them is swept. If the sweepers start first, and then the boys, whose responsibility is benches, sweep the trash off the benches onto the clean floor, friction will result.

4. Adequate time for clean-up must be allowed. In some situations as little time as five minutes may be adequate; in others, as much as twelve is necessary.

5. If all boys are required to wash up in the shop until the passing bell, there is less tendency to slough through a job and hurry into the main building.

6. Thorough knowledge of the rules and jobs on the part of the students is necessary. One way this can be accomplished is to duplicate them and place a copy in the hands of each student for study. This study can be followed with a test. In addition to this, a copy should be posted on the shop bulletin board for reference.

7. A keyed color system, having the silhouettes in each cabinet a different color, with some part of each tool painted the color of its cabinet, will aid materially in getting tools returned. This is especially important for adult classes which are likely to be less familiar with the shop arrangement than are the all-day students. A color system is also convenient in designating shop clean-up assignments.

You can't do today's job with yesterday's tools and be in business tomorrow.
ARE vocational agriculture teachers over负荷 with work, worry and responsibility? Every teacher worthy of his hire will answer this in the affirmative. The demands on time and effort in this field are always greater than a teacher can give. The opportunities to serve the cause of a better agriculture are tremendous. Every teacher is constantly in the position of making decisions as to where he shall devote his time and effort to the greatest good for the greatest number. He has accepted a position as a public servant and the public expects productive returns for the investment made in his services.

The vocational agriculture program is continually becoming more complex. The agricultural instructor who started out with the program in 1918 had a picnic as compared with the teacher in 1950.

The Future Farmer program over a period of twenty-two years has expanded tremendously. Five national judging contests are now conducted annually (dairy, dairy products, livestock, meats, and poultry). In addition to these, many states conduct crop judging contests, farm mechanics contests, parliamentary procedure contests, queen contests, ham and egg contests, and others ad infinitum.

The National Future Farmer Foundation, Inc. makes state awards in seven fields (star state farmer, public speaking, farm mechanics, rural electrification, dairy, conservation, and safety). There are also state initiated projects. The awards in the seven fields are carried forward on the contest basis at the national level. All of these require extra work.

Many F.F.A. activities are conducted at or beyond the chapter level. These include participation in stock shows (which are growing in scope and numbers), county, area, state, and regional fairs, various scholarships to higher institutions, essay contests, chapter recognitions, and public speaking contests.

Vocational agriculture teachers are encouraged to attend district educational and leadership conferences, the annual summer conferences, F.F.A. and Y.F.A. leadership conferences and conventions, summer camps, and go on summer F.F.A. tours with their chapter members.

A good vocational agriculture teacher is expected to have a program of complete continuity—Future Farmer, Young Farmer and Adult Farmer programs. The work involved as advisor to the Young Farmer Association like that of the Future Farmer chapter advisor is tremendous. On top of all this some teachers are expected to be responsible for the management of the school community cannery, the sweet potato house, the school incubator, again ad infinitum.

Community Responsibilities

A teacher is expected to be a community leader and take an active part in the Farm Bureau, the Grange, or the Farmers Union, or be on the agriculture committee of the Lions Club, the Kivans Club, or the Rotary Club. In church he is expected to teach the Sunday School class and be Scout Master or Troop Committeeman in the Boy Scout Troop, or Explorer Post.

In a number of instances teachers are assigned responsibilities with the veteran institutional on-farm training and spend considerably time in this activity.

Many teachers have interests in private business which range in scope from small enterprises to rather extensive holdings and then on top of all this—reports—reports—reports—reports—reports!

When, I ask, is an agriculture teacher going to find time to spend a few minutes at home with his good wife and family? The kids in many instances are reported to scarcely recognize their father. They seldom see him at home and then never during the light of day. Such a situation is endangering the future welfare of the race. Isn’t it about time we call a halt to all this overload business while the vocational agriculture teacher still has enough substance to cast a shadow? If it goes on much longer there won’t even be a grease spot left of a once manly man! Isn’t it about time we declared open season on school executives, area supervisors, and state supervisors before this poor agriculture teacher becomes as extinct as the dodo?

Well, let’s take a breather and analyze the situation! Perhaps there is a solution! The words of the poet Horne in his poem “Invictus” comes to mind in this connection.

"Out of the night that covers me,
Black as a pit from pole to pole
I thank whatever Gods may be,
For my unconquerable soul.

It matters not how straight the gate,
How charged with punishment and scroll,
I am the Master of my fate,
I am the captain of my soul.”

The solution to the problem of overload lies with the teacher himself. He in every deed is the master of his fate, the captain of his soul, and more specifically the administrator and planner of his own program in vocational agriculture as well as for his personal activities beyond his job.

It is observed that many teachers at present are in a state of confusion and frustration with regard to the application of their time and energy. They either do not know how to plan or if they do they don’t seem to have the “will” and personal management to carry their plans into operation.

The answer to the overload problem is better teacher management. The ultimate solution therefore rests largely with the teacher. The first requirement of a vocational agriculture teacher or any teacher for that matter is that he is happy in his work. A teacher who cannot qualify in this regard owes it to himself and the public he serves to get out of the teach-
ing business. Every vocational agriculture teacher worth his salt who has been on the job six months or more will find enough work to do in vocational agriculture to take the time of two or three men. His responsibility then lies in doing first things first.

During the past year in Utah the state supervisory staff has held a series of conferences with vocational agriculture teachers and veteran instructors in which the discussion has centered on teacher management. Some tentative suggestions have been made concerning teacher management and job classifications. For the sake of discussion the agriculture teachers job has been likened unto a chief with jobs of primary importance, categorized under the “big tent,” jobs of secondary importance listed under the “side show” heading, and jobs of third rating importance under the “popcorn stand” designation. Obviously a good circus has all three—the big tent, the side shows, and popcorn stands. The chief circuses attractions, however, are the big tent activities. Likewise the vocational agriculture teacher’s activities of primary concern should probably come in this category. For a well-rounded program he will have a few side shows and even a popcorn stand or two. Yet his chief circuses attractions (other wise) will be the big tent. These activities have been tentatively listed for the Utah program of vocational agriculture as follows:

young men if they are given a chance. A department advisory council and advisory committees can save the teacher in time and energy if properly managed. Again, it is a challenge to a teacher’s ability to organize, delegate, and supervise.

2. The teacher who has the idea of “getting young farmer and adult farmer instruction over with in January to March” is usually the loser. It generally can’t be done this way. It is a year-round activity just the same as is the day program. Year round planning is the solution to this problem.

3. More instruction should be done on a problem solving basis in terms of the individual farming plan of each enrollee. Too much time is spent in class work keyed to information leading to general understandings and appreciations. Not enough of it is geared to the doing level “here and now.” Carefully planned farming programs are time savers. They are the basis for instructional efficiency.

4. Visit enrollees on their farms when they need it. It is believed that visits to Future Farmers, young farmers, and adult farmers will average 30-40 per month during the school year for each teacher. Only the farms of enrollees should be visited as a rule.

5. The vocational agriculture teacher is an educational leader and not a servant for emergency farm repair jobs. This work should be done only during regular class time with these groups. The school shop is not to be used for personal repair jobs. Teachers should insist on such a standard with respect to shop use.

6. Don’t let reports to the local district and state department pile up. Keep them progressive as the activity is performed. Making a “piled-up” report is a headache!

7. A teacher cannot keep up with all of the judging contests. It is suggested that no teacher coach more than two judging teams for a state contest nor spend more than 20 hours with each team after it is chosen. It is recommended that not more than 10 hours be spent with the chapter public speaker after he is chosen, for each of the contests (area and state). It is suggested that no teacher enter more than two candidates for F.F.A. Foundation awards (other than public speaker and star state farmer).

8. Some teachers spend a great deal of time driving their cars upon the request of F.F.A. members and their fathers in scouting for livestock purchases. This practice requires a great deal of time and expense to the school district which may be minimized through planning and organization.

9. In a number of areas in the state, Future Farmer chapters are engaged in competitive athletics, particularly basketball. This takes a great deal of teacher time and is not in the realm of vocational agriculture responsibility. Let the physical education teacher or athletic coach handle the sports.

10. Many vocational agriculture teachers have the “January-March” young farmer and adult farmer instruction

(Continued on Page 71)
Two teacher leaders...

C. L. (Doc) Loy has done more for the farmers of Union County than any other man. He has made "headlines" with his people on the strength of his winning personality, character, straight-forwardness, honesty, and willingness to help his fellowmen. He has built a father-son relationship with the farmers of Union County in the past twenty-one years as a teacher of vocational agriculture at Maynardville, Tennessee. He has served as advisor, counselor and veterinarian to the farmers during these twenty-one years; all the people call him "Doc" because he is ready to help whenever they are in need.

Besides being a teacher, he is president of the Union County Teachers Association, treasurer of the Hubb’s Grove Community Club, and manager of his farm, which is one of the finest in Union County. He has also served as president of the Tennessee Vocational Agriculture Teachers Association, by which he is considered one of the outstanding teachers. He trained the first speaker, Elmo Johnson, ever to go from the state of Tennessee to the National F.F.A. speaking contest.

"Doc" plays the fiddle and has organized an F.F.A. string band that has played at state conventions on numerous occasions. The band also plays at square dances for the purpose of raising money to support the F.F.A. chapter.

All his students love and respect him. He believes that good discipline is the first step in teaching. He always has the situation well in hand, and regardless of what he says, can always adjust to the level of the group with which he is speaking and working. His philosophy is built on the concept of cooperation with people, and his famous words are "be right, be hard, be honest, be fair." He is known for firmness in his criticisms, but he can criticize his fellowmen in such a manner that they will still respect his judgment. He believes in common "horse sense," weighing the value of any situation and taking it from there. To quote his words, "you can’t make a fork handle out of a polk stalk." He believes in teaching the boy first how he can make something out of himself, then teaches him agriculture. He teaches only those things that are needed in his community and that are directly concerned with the farmers of the immediate area.

He has a mental picture of how his county should be in regards to agriculture, and he has set out to make this picture a reality. As most of the county is unsuited for corn production,

The job or the man

WALTER PEACE, Student Teacher, University of Tennessee

C. L. (Doc) Loy

Doc is teaching the farmers the importance of pasture and livestock production in the south. Twenty-one years ago pastures in Union County were, in the main, just fenced off areas on the farm. Today the mountain slopes are green with modern pastures, seeded with a select grass and legume mixture. If asked what he has done to achieve this goal, he will always say that he has been a failure. He is never satisfied with his efforts even though others around him can see the job has been well done.

The long tenure

L. J. Howell, teacher of vocational agriculture, has been Prof. Howell to boys and girls of Pickens County High School at Reform, Alabama for 32 years.

Mr. Howell stands in a class alone when considering tenure as a vocational teacher. This is true of Alabama and probably the entire nation. The Smith-Hughes Act which inaugurated vocational agriculture work was passed March 4, 1917. Mr. Howell began teaching agriculture at Reform, January 1, 1918. His first class consisted of six boys and three girls. The term was nine months in length. Mr. Howell has held high standards in project work since the beginning. He has always insisted that a student should have at least five acres in projects. During the first year the average income per boy from projects was $343.32. The average has always run from $200 to $300.

When Mr. Howell started his work at Reform even the local farmers of that day were using half and half cotton and 100 to 200 pounds of 10-2-2 fertilizer per acre. The average yield of corn was 13 bushels per acre and cotton 90 pounds of lint per acre in 1918. In 1948, Mr. Howell’s boys averaged 43 bushels of corn per acre and 573 pounds of lint cotton per acre. The state average cotton production was 367 pounds of lint per acre.

Mr. Howell started his vocational work by surveying 50 farms in the community. He found no houses screened, only 20 good farm practices being carried out in the entire survey, no terraces, no legumes, and no roads. There were two houses in Reform at that time with shurbbery. There were no gravelled or paved streets; some sidewalks were paved.

Mr. Howell soon began working on better corn yields. Through community fairs where prizes were given for high corn yields this work was started. Out of this adult work on corn improvement came a new variety of corn, Graham’s Mosby. This was developed from field selection. This was developed by L. C. Graham, one of the evening school members.

The first adult class held was a series of 16 lessons. This class was held at Hargrove School which was six miles from Reform. Mr. Howell made these 16 round trips by horseback. Through this effort he surveyed and built the second terrace in the county. He laid off and constructed terraces in four centers where he taught adult schools.

Outside all this Mr. Howell has found time for other activities. He has been Sunday School Superintendent at the Baptist Church all the time except four and one-half years that he has been in Reform. He has been deacon and trustee of the church for 12 years, member of the Rotary Club for 12 years and is at present the president of the club. He was council member for 12 years and is now serving on the town board.

In order that people may be happy in their work, these three things are needed: They must be fit for it, they must not do too much of it, and they must have a sense of success in it.

—John Ruskin
A state advisory committee in West Virginia

Teachers of vocational agriculture in West Virginia are shown serving in a state advisory capacity to supervisors and teacher trainers. The committee, of eleven members, one from each of the eleven administrative districts in the state, was selected by virtue of his election as President of his local Yo-Ag Teacher's Association.

Meeting of these types are extremely helpful to the state staff and are a good example of the principles of democracy applied to the administration of vocational agriculture.

Those included in the picture, left to right, are Yo-Ag teachers unless otherwise noted: Robert E. Vie, Talcott; Lacy Cochran, Moorefield; W. H. Wayman, District Supervisor; C. A. Hill, Wallace; R. C. Butler, Teacher Trainer; D. P. Plymale, Secretary; Kyowwa Fair; C. T. Sydowick, Secretary, State Fair; D. W. Parsons, Teacher Trainer; L. F. Huffman, Hamlin; John M. Lowe, State Director of Vocational Education; H. N. Hansucker, State Supervisor; C. W. Phillips, Buckhannon; Claude McGhee, Kingwood; W. L. Bible, Morgantown; Clifford Dunn, Point Pleasant; Lawrence Bartlett, Harrisville; and Nelson Dailey, Renick.

The three men in the back row, left to right are—K. O. Judy, Martinsburg; Guy E. Cain, District Supervisor and P. C. Karickhoff, Lookout.

Established

Of the 107 California high school vocational agriculture students who received the American Farmer degree between 1928 and 1948, only four are in occupations which are not related to farming, and 89 of them—more than 83 per cent—are actually in full-time farming.

A study completed in May shows that two are in related work; a veterinarian and a buyer for a meat packing plant; four are in professional agriculture, one a regional supervisor of agricultural education. One is in military service, two are deceased, one of them in wartime service; and six are still in college, all preparing for farming or professional agricultural work.

Dr. Wm. Anderson Broyles, Professor Emeritus in Agricultural Education at Penn State, has concluded two years at the Alabama Polytechnic Institute, Auburn, Alabama.

Dr. Broyles will go in September to Berry College in Georgia, where a new program in launching Agricultural Education is being set up.

Success is a matter of adjusting one's efforts to obstacles and one's abilities to a service needed by others. Most people think of it in terms of getting. Success begins in terms of giving.

—Henry Ford

Help . . . This teacher overload is killing me

(Continued from Page 69)

complex and bunch their classes during this period. In lieu of this it is suggested that no teacher instruct such classes more than two nights a week (preferably one) and that no night class be of more than three hours duration nor extend later than 10:00 p.m. In many instances adult farmer and young farmer class instruction may be conducted in the afternoons or on Saturday mornings.

II. It is believed that in a number of cases teachers have allowed themselves to be overloaded with church work, community work, or private business on the side. It is assumed that every vocational agriculture teacher regards vocational agriculture as his primary job to which he owes first allegiance in time and energy. If other work usurps his strength to the extent that his main job suffers, the teacher is not dealing justly with himself or his job.

During the coming year more attention will be given to the problem of teacher load and plans are now under way to make specific studies of vocational agriculture teacher activities in Utah with the hope that some objective criteria may be established with regard to the "teacher and his job."
Delegates from 15 chapters of Alpha Tau Alpha assembled in National Conclave at Atlantic City to chart the course of their professional fraternity in Agricultural Education. They represent 5,000 alumni and active members. (See Page 71.)