The AGRICULTURAL EDUCATION Magazine

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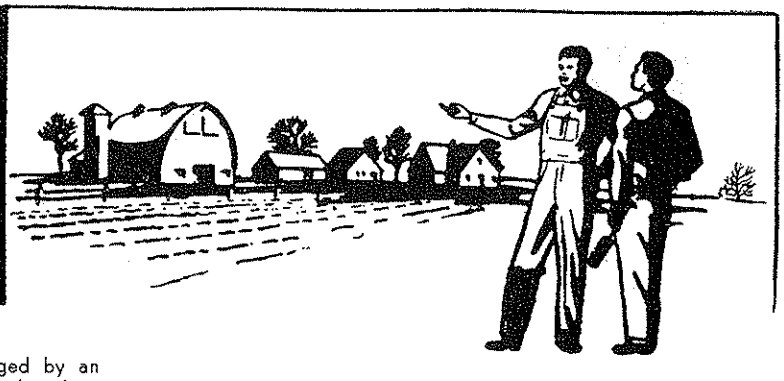
Picture legend, page 220

Featuring—Guidance for Students in Vocational Agriculture

The Agricultural Education Magazine



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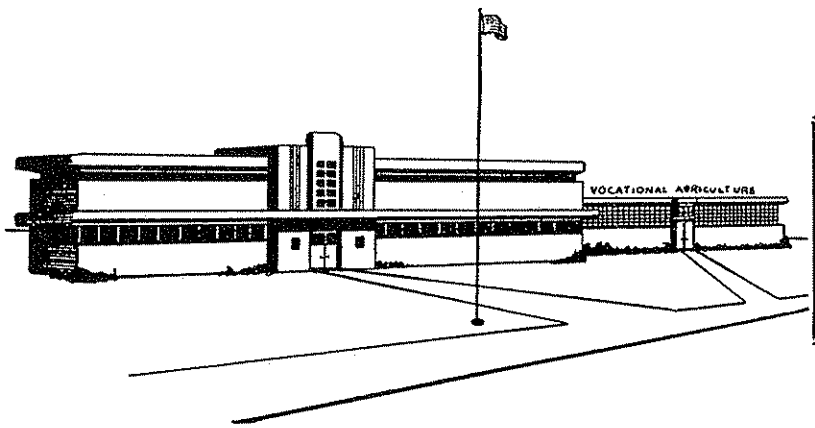

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Editorials

The Key to the Future of Agriculture

C. S. McLEAREN, Teacher Education,
Virginia Polytechnic Institute

Who are our future leaders in agriculture? Where will they come from and how will they compare with the other professional people? Will they be able to insure the strength and stability agriculture has had over the years? Will they be able to adjust to the changes of our society as we know it today and as it will be tomorrow? Will they carry agriculture forward at the rate it has progressed over the years? These are important questions that would be extremely difficult to answer. They are important to the future of agriculture.

How realistic are we being about the selection of our leadership and personnel for agriculture? If we examine our present freshmen enrollments in agricultural colleges, chances are, and there is evidence to support this, the present students are down the ladder in potential scholastic ability. They are not the strongest students academically. Why aren't they? If we will look at present freshmen enrollments of ag-colleges, many are past students of vocational agriculture. In fact, more than 70% have probably had vocational agriculture in high school. Now check back to the present high school enrollments of vocational agriculture. The average student is being shuttled into agriculture. The better students are being encouraged to study sciences other than agriculture. This is a serious recent trend due to the science emphasis. Recent figures indicate that only the top 30% of the students will be accepted to attend college.

Do the above statements have implications? I think they do. Unless we can get some of the better students for vocational agriculture, we are headed for a second-rate agriculture. If we do not get them to man our farms, to fill the professional jobs in agriculture including teachers of vocational agriculture, county agents, soil conservation technicians, agribusiness personnel, etc., we are going to have a second-rate agriculture in America. We must have a part of that top 30% for agriculture.

What can be done to guarantee a supply of top-notch men to man agriculture in the future?

First, we must start a search for the potential leaders early in the school career of the students, not just in the secondary schools, but well before that in the graded school enrollment. The whole field of agriculture must be glamorized with truths

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From the Editor's Desk . . .

New "Image" of Vocational Agriculture Needed - - -

The current image of the vocational agriculture program appears to be one of a program which leads to only one destination—the farm. It is this image which has kept from our classes some students who were interested in the program but who felt the need for a more flexible preparation for life. This image, plus our own lack of flexibility with regard to enrollments, is partly responsible for our enrollment problems.

The "must farm" image grew partly out of the original legislation and partly out of an original over-abundance of students. Combined with a tradition of "home economics is for girls, vocational agriculture is for boys," it was inevitable that evaluation of the program would have establishment in farming as the primary factor—and we publicized this as if it were the only factor. Rigidity with regard to accepting students into the program at the level of their year in high school created further blocks to enrolling and meant almost no replacements for dropouts. These conditions can be corrected only at the state and local levels. Changes in federal legislation might provide a psychological boost, but that is about all.

What can be done? We can start with the following:

1. Publicize information about the many destinations in addition to farming to which vocational agriculture leads. Stress the need for the knowledge and skills of farming in many of the agricultural occupations other than farming. Present the flexibility of occupational choice built into the vocational agriculture program as an asset, not a liability.
2. Open the doors to all good students, permitting nonfreshmen to enroll in the year of agriculture normal for their year in high school.
3. In cooperation with school administrative and guidance personnel, work out high school programs which will permit students to meet college entrance requirements and enroll in vocational agriculture. Point out to parents and students that it is far better to be highly successful in a high school program which the student enjoys than to be partially successful in some other program. Many colleges still waive various entrance requirements for students who rank high in their graduating classes.

The creation of a new image of vocational agriculture is mainly a local and state task starting with a change in our own attitudes toward our situation, followed by a revised program of public information

(Continued on page 220)

New "Image" of—

reflecting these changes in attitudes.

Although this is not a solution to the problem of providing all agricultural education needed, it might do as much good for vocational agriculture as would changes in the federal vocational acts. □

The Key to the Future—

and not "a lot of ballyhoo" so that the good students will want to select and to continue training in the field of agriculture. Many persons will have to lend a hand with such a program. Some vital people are those teachers in charge of various guidance courses and services, plus the administrators of our school systems. Our guidance personnel must have the true picture of what it is going to take to study and progress in the field of agriculture. Teachers of vocational agriculture are a vital link in the whole guidance setup. They can insist that well qualified students study vocational agriculture and not let vocational agriculture be a "dumping ground" for the academically deficient students. Yes, we can take our share of the average students in vocational agriculture but we must also get our share of the top students. The science of agriculture is just as vital, just as glamorous, just as important as the other sciences. In fact, almost every science is tied into agriculture so closely that the future scientist in the field of agriculture must be far superior to some scientists in other fields.

As teachers we must implement ways to utilize the training and experience of guidance personnel in our school systems. They must be furnished information about the man power needs and the potential future for persons trained in agriculture and the training available to be in this field. We must use the testing and counseling services available from the guidance personnel. A wealth of testing information and interpretation is necessary before we can feel we know which person to advise to train in agriculture. The many top students who do not seek additional training must be encouraged and helped to stay in the field of agriculture. Too many good students are dropping out of the secondary school and many that finish do not continue training beyond the high school. It is true that, "Tomorrow's leaders are in school today." It is our responsibility as educators in agriculture to find and to direct the future leaders for agriculture. America must be strong. Unless we have strong agri-business with superior leaders America will not be strong.

We cannot be content with the mediocre for agriculture. Mediocrity breeds mediocrity. We must strive for the superior. Superiority breeds superiority. □

The Cover Picture

Rex Crews, chairman of Laramie County, County Commissioners, purchased from county funds four bred registered long yearling heifers from the Wyoming Hereford Ranch, Cheyenne (George Lazear, manager), to be given to a boy in each Vocational Agriculture Department in Laramie County. This project has two purposes, namely, to give boys a start in the registered Hereford cattle business and to upgrade cattle in the respective communities. The boys will retain these heifers for two years, at which time they will be passed on to another boy in their chapter.

The photograph shows the four heifers purchased. Due to the fact that these heifers were not halter broken, it was impossible to get a shot of the boys holding these heifers.

Left to right: John Kirkbride, Albin FFA; Bob Winslow, Hillsdale FFA; Jack Talkington, Carpenter FFA; Bob Croker, Cheyenne FFA; Rex Crews, Laramie County Commissioner; and Percy Kirk, Wyoming FFA Advisor. □

Guidance Activities of Teachers of Agriculture

Are You "Doing What Comes Naturally"?

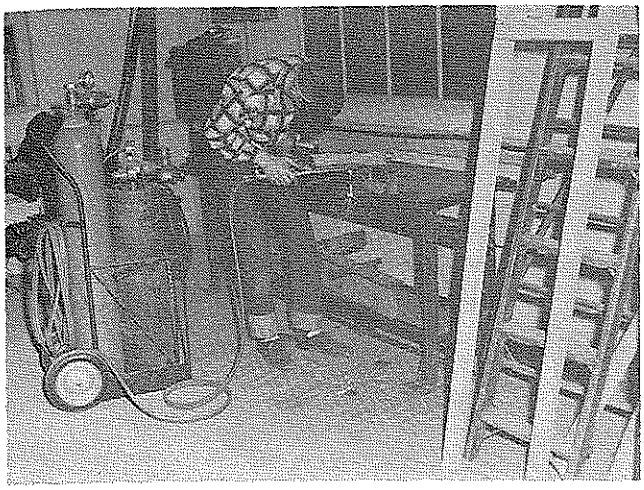
NATHAN KNIGHT, Vo-Ag Instructor, Keene, N. H.

Nathan Knight

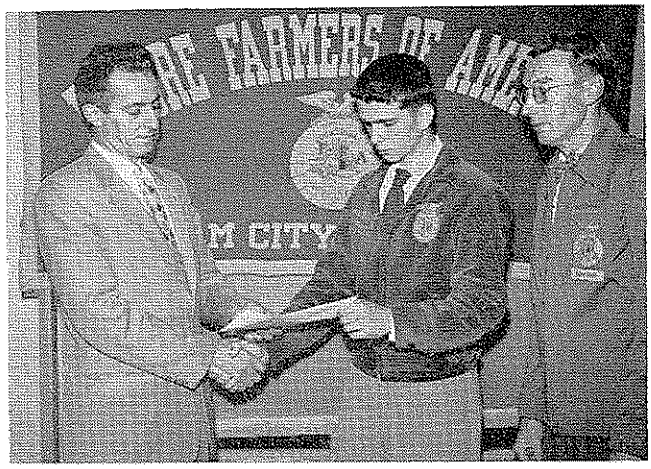
As teachers of agriculture we have, and accept, the job of guiding students into a future of satisfying living. The student's future work can be challenging enough to make his life a pleasant one or it may be so boring as to make that life one "big bad dream."

When does one decide what his future is to be? If he has made an incorrect decision does he then have any recourse? It is true that no one blanket answer can be had for all people due to the vast differences in human nature. It seems to be advisable that the average student strive to "find himself" by the senior year in high school, although it is recognized that this also is not true in all cases. However, the student must prepare himself in a manner which will leave several avenues of opportunity open for the time of final decision. If this preparation is properly executed, the student will find himself in a more favorable position to change objectives, if such is desired, and can carry on into his newly elected field. An "ace up the sleeve" is no desirable thing in a card game but it certainly has merit in this game of selecting a future career in life. The teacher of agriculture must help the student obtain this "ace" with which he may seek recourse in later life if his first selection proves of poor value.

What activities, events and experiences will help the student make the big decision as to selecting his life's work? Where does the agricultural teacher fit into the picture? Let us examine a few of the activities of the agricultural teacher, which are the normal and natural work of this man, to see how they might aid him in his work of guiding those students with which he has contact.



In shop, the student may demonstrate his manual potential.



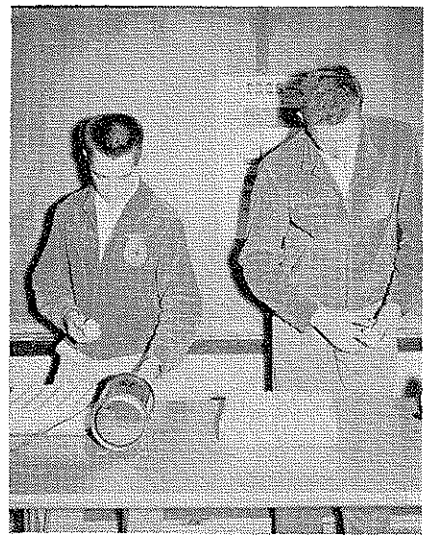
FFA activities, such as granting honorary Chapter Farmer degrees, shows boy's abilities.

Teacher's work-a-day activities	Information which may be obtained by the teacher
1. Home visits and individual student conferences—	a. Knowledge of boy, his home, parents, general background. b. Boy's desires, hopes, likes, dislikes, some of his abilities. c. Parents' attitude, willingness to cooperate.
2. Regular classroom work—	a. Further information as to boy's scholarly abilities, limitations and interests. b. His reactions in public (group).
3. Shop work section of the program—	a. Teacher observes manual side of picture as to likes, interests, limitations. b. Special abilities show up here.
4. Future Farmer work—	a. Boy's leadership ability and potential, cooperativeness, his responsibility status. b. Boy's poise in public and general reaction of public.
5. Conferences with school guidance personnel—	a. Past achievements reviewed and performance of boy studied. b. A professional's point of view may be obtained. c. Teacher is able to bring the boy's hopes and plans to the attention of an important person.
6. Conferences with school and state administrators—	a. Allows teacher to keep up-to-date on school objectives and plans. b. May better visualize how school may aid boy. c. Teacher gets new ideas from state and school personnel.
7. Conferences with college personnel—	a. Teacher keeps abreast of late requirements for success. b. College personnel leave helpful ideas. c. Hopes of boy are brought to the attention of college.
8. Visits with farmers in area—	a. Up-to-date farming methods are studied. b. Opportunities for help for boy. c. Requirements for success as seen by man in the field.
9. Meetings with advisory or consulting committee—	a. Layman's ideas as to how help may be offered. b. Ideas based on experience-practical.
10. Visits to people in allied agricultural fields—	a. Late requirements for success discovered by teacher. b. Teacher finds sources of help for boys in this area. c. Teacher learns of available opportunities—can help student.
11. Informal discussion with others on staff—	a. Discover students' problems unseen by the agricultural teacher. b. May secure added help on a particular problem. c. Discover additional place for student help.
12. Young and/or adult farmer classes—	a. Teacher becomes better acquainted with present day problems. b. Can advise students to better advantage on these problems. c. Has information for a more realistic approach to problems.

It can readily be seen that the activities of the agricultural teacher give him a definite advantage in the matter of individual guidance work with his students. This opportunity to have individual contact with the student, his home and his parents, leaves an agricultural teacher in a fine position to aid in student development for the future.

A teacher of agriculture can do "what comes naturally" and, by fol-

lowing through, be of extreme value to each and every boy in this important task of selecting a future career. The teacher knows the boy as a person, a student and a potential member of this modern society. By the very nature of his training, the agricultural teacher knows that there are questions which have many correct answers, yet the correct answer for one person may be the wrong one for another individual. Let us help the student to discover these many answers and select the answer(s) which is correct for him. □

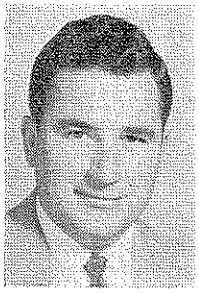


Preparation for contest brings out the student's interest and potential.

Why not try being—

Partners in Guidance

HAROLD H. THOMPSON, Vo-Ag Teacher, Mt. Airy, Maryland



Harold H. Thompson

Today the guidance counselor and vocational agriculture teacher should become working partners in developing career opportunities for vo-ag high school students. This working relationship is very important if our students are to become successful college students. Colleges throughout the nation are emphasizing the need for academic training of vo-ag students while they are in high school. It becomes more important each year that the students who are academically capable be subjected to the basic courses which they will need to succeed in college. It is also important that the vo-ag department does not lose the academically talented boy. This in itself will tend to deteriorate any vo-ag department.

Are the better academic boys slipping away from your vo-ag department? If they are, the cause could be that they cannot get the academic courses which they will need in order to qualify for college entrance. They may also feel that they cannot get the basic fundamental courses without sacrificing valuable time. If the schedule and program of studies for the school are not flexible, the potential top vo-ag students will select the academic program instead of the vo-ag program. It is highly probable that you are losing many good students who would like to take vo-ag in high school. These students, in all probability, feel that academic preparation is more important than taking vo-ag in high school. The student, in many instances, realizes that he can get his agriculture courses during his college career after leaving school. Working and planning among the vo-ag teacher, principal and guidance counselor in the school can bring surprising results. Where a department incorporates a planned program of vo-ag with some of the most fundamental academic courses, your enrollment of better farm boys will be on the increase. Most principals and counselors are willing to know more about this program and how their efforts can be integrated to improve the vo-ag department in your school.

It is important to establish a desirable and effective relationship with the guidance counselor if the optimum results are expected. The agriculture teacher in most instances will find the guidance counselor ready and willing to give able assistance when called upon. It is imperative that the vo-ag teacher takes it upon himself to make the first move as the guidance person may not immediately recognize a plight of this nature unless it is brought to his or her attention.

Listed below are eight ways that the vo-ag teacher and guidance counselor working together can strengthen the vo-ag program in your school by better preparing a prospective vo-ag student for college entrance:

a. Arrange a meeting with all prospective eighth grade students in May or June before coming to the ninth grade.

b. Investigate the background and home conditions for each prospective student prior to their coming to the ninth grade.

c. Learn about the students' achievements, abilities and personality traits.

d. Converse with the guidance counselor concerning the previous record of the child.

e. Work with the counselor in detecting student interest of those who might be going to college later on even though they might not indicate an interest in college at an early age.

f. Place students in those academic subjects which will be of greatest benefit to him when he enters college.

g. Encourage parent-counselor and student conferences when necessary.

h. Prevent the vo-ag department from becoming a dumping ground for the very slow and those students who have not been able to adjust in other areas of the school.

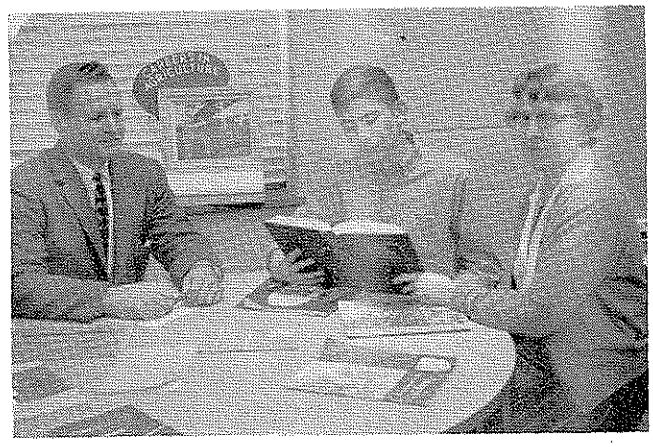
During the four years of high school, it is important for the potential college bound student to plan with his vo-ag teacher and guidance counselor the courses that he is to get in the academic field. If this is not done early in the students' high school careers, they will not be able, in many instances, to get the desired courses for college entrance. When double periods are given in vocational agriculture, it will mean in some instances that one of these periods could be used for an academic subject and still the student could meet the requirements for a vocational agriculture diploma. At the same time, the student could be well qualified in the academic field so that he might successfully attend the college

of his choice, provided he has maintained a good grade average throughout his high school career.

This type of planning and scheduling can only be done when a close relationship exists between the vo-ag teacher and the guidance counselor. Performance from students with this type of background will be gratifying to everyone concerned during the entire students' college careers.

Every year there are a sizable number of worthy scholarships available to deserving well qualified students. Your guidance counselor in most instances is very willing to give these boys the necessary assistance in applying for the much needed scholarship.

Guidance counselors and vo-ag teachers are important people in guiding and influencing vo-ag students into college and worthy lifetime vocations. □



Pictured here is a typical conference situation and the type of cooperation that should exist in every school between the student, counselor and agriculture teacher. Reading left to right: William R. Kent, Jr., Richard Allen and Mrs. Jeanette Werentz, guidance counselor, Newark Senior High School. Total student population, 1200; agriculture department, 50 students.

In the background is one of the visual displays developed in our program to familiarize the student with agriculture and the opportunities in agriculture for them. We change the picture and captions each month.

Helping Students Plan High School Programs

WILLIAM R. KENT, Jr., Vo-Ag Teacher, Newark, Delaware

William R. Kent

Is the high school student foremost to you as an educator? If you are a teacher, in the true sense of the word, the answer will be "yes." With this question settled, we must set our sights on our common goal of educating our students in a way that their abilities will be utilized to the maximum. To achieve our goal much guidance must be given the student. This will require a cooperative triangle between the counselors, agriculture teacher and other teachers involved in the educational development and growth of the student. This cooperative triangle will not emerge spontaneously. Therefore, the agriculture teacher must take the initiative and make all school personnel cognizant of his program, his abilities and experiences; above all, he should offer interdepartmental cooperation.

A strong agriculture teacher is one of the best sources of information about the community the guidance counselor can obtain. With the limited knowledge of rural communities possessed by most guidance counselors, the agriculture teacher should be an invaluable friend and source of help. However, unless the agriculture teacher assumes his duties as a forceful community and school influence, his abilities and experiences are lost to the most important faction, the student.

The agriculture teacher's responsibility is not only to his students enrolled in agriculture, but to the whole student body. With his experiences in agriculture, allied industries and with the state university or agriculture colleges, he will be avoiding his duties if the high school student body is not made aware of the opportunities in the professions and occupations of the agriculture industry.

We have made great strides in achieving our goal at the Newark Senior High School. In order to have the students well informed about the various fields of the complex agriculture business, the agriculture teacher has supplied each guidance counselor and school administrator in the Junior High Schools and the Senior High School with a copy of the courses of study for both college preparatory and general agriculture students. The main difference in the two courses being the mathematics, English and science requirements.

During the course selection period each year, the agriculture teacher works directly with the counselors, counseling each student interested in agriculture before he is allowed to pursue his agricultural studies.

Another help to the student was initiated two years ago. This program was devised by the agriculture teacher, Newark High School, and the head of the Department of Rural Communication, University of Delaware, to guide the college bound students. The theme of the program was "Put yourself in the picture." To impress this theme deeply upon the minds of the high school student, we devised a series of photographs and 2x2 slides of the various agriculture business opportunities in the state of Delaware. The large photographs were displayed in an attractive frame with captions explaining the story involved in each picture. These aids are placed in the guidance office and in the school show cases, where the student's attention will be most frequently attracted.

The 2x2 slides can be borrowed to show to separate classes or to set up in a protoprojector for a display. They are also used in assemblies by agriculture specialists when addressing the entire student body. These aids have been distributed to every school in the state of Delaware having agriculture in its curriculum.

The one activity that has helped greatly in the Newark High School has been the use of extension specialists from the University of Delaware in assembly programs sponsored by the agriculture department under the direction of the FFA officers and members. So many times these men, all experts in their respective fields, are overlooked in the planning of our yearly activities. Here again the agriculture teacher must take the initiative in contacting these specialists. They are all more than willing to cooperate and many of them often wondered why invitations had never been extended to them before.

The two years the program has been in operation isn't a great amount of time to measure its success, however, with the agriculture classes at the Newark High School and the University of Delaware, indications are encouraging.

With the increasing urbanization, the number of farm students is decreasing and the number of urban and town students is increasing. With this problem, we are meeting the needs of interested students through our agriculture directed practice program. Through this program, the nonfarm student has the opportunity for practical agriculture experiences. This is one of the many instances in which the vast knowledge of the community and its resources at the command of the agriculture teacher aids the student. In this program, the agriculture teacher directs the student in obtaining employment and supervises the student's work experience.

We must always keep in our thoughts the student and his needs; for we, as agriculture teachers, have a great responsibility in helping him obtain complete fulfillment.

Are you a dedicated teacher? If so, come out of your shell and share your wealth of knowledge and experience with your colleagues and the students of your school. □

FFA Contest: How to Win One

The FFA Contest Is a Valuable Aid in Teaching

KENNETH HIRSHEY, Vo-Ag Instructor, Billings, Missouri

Are FFA contests worthwhile? How much emphasis should I place on FFA contests? How important is winning? I'm sure all vocational agriculture instructors have asked themselves these or other similar questions. How successful were you in determining the place of FFA contests in your vocational agriculture program? Vocational agriculture instructors were asked these and other questions at the district and state contests. Here are the views of a majority of the instructors contacted.

1. *The FFA contest should be a means used to reach a teaching goal, not a goal in itself.* Too often, because of the recognition afforded to contest winners, the vocational agriculture instructor is encouraged to spend excessive time and effort training contest teams. He trains his team like an athletic coach trains a basketball team and, like basketball, the boys without sufficient or promising skill are put on the "bench" and do not receive attention. The problem, as I see it, concerns the amount of time to spend training three or four boys to win a judging contest. The educational objectives, under which we work as teachers, are set up to include *all* of our students. We should remember this when we are allocating time for the training of contest teams. Spending excessive time training teams makes winning the goal; meanwhile, the real goal, that of developing skills in *all* the students, is overlooked.

2. *The FFA contest is an excellent motivational tool.* When contest time rolls around each year, it is a pleasure to see the interest and intense concentration of effort displayed by contestants. If the vocational agriculture instructor will transfer this into his local department, many of his motivational problems will be solved. I have seen this done in some departments in my area. The students are encouraged to work for a berth on a judging team. This technique, if handled properly, is very effective. However, we must keep in mind our overall objective or we may tend to stress "making the team" instead of actual learning and practical application of knowledge.

3. *The period of time allotted for team training should be limited.* When the training ceases to become a regular classroom teaching function, and becomes a specialized team project, then we should seriously consider how much time to give.

How important is winning a contest? Is winning important enough that the teacher should spend two weeks, one month, or six months training his team? It is my opinion and sincere hope that most departments are limiting their time spent on team training. Can we justify spending after school hours, nights, Saturdays, or even part of the summer on training teams for district contests? Before we determine the time to allocate for this activity, we should consider what we want to accomplish. I believe there are two important factors which can be accomplished by training contest teams. First, by spending time to train a team reasonably well, you are developing a group spirit in your FFA chapter. When the local team has a reasonable amount of success in the FFA contests, this will give the chapter members a feeling of accomplishment. It will motivate them in other activities undertaken by the chapter. Secondly, when the local team is reasonably successful, the classes who study that enterprise the following year will work harder trying to match or surpass their record. This work, properly directed, can be a valuable aid in the classroom.

The time spent on training teams can be time well spent, or it may be time wasted. We should always determine what is to be accomplished before we plan our contest entries.

4. *Team training should not interfere with the regular classroom schedule, but should supplement and reinforce it.* I'm sure most vocational

agriculture instructors agree that, due to limited class time, many important jobs must be omitted. Therefore, spending time in the classroom for the specific purpose of team training is indeed difficult to justify. Taking advantage of free periods or several after school or night sessions to train the team is not objectionable. These sessions can pay off as I will illustrate later. However, the number of meetings should not be excessive.

5. *Team training sessions cannot replace good classroom techniques of instruction.* The instructor should concentrate his efforts upon classroom instruction, for good classroom instruction is the firm foundation needed for winning teams. Since our objective is to teach all of our students, we should plan our classroom instruction thoroughly.

Two factors have been called to my attention by several instructors. First, it is conceded that nothing is better than good classroom teaching to train a contest team. Consistent winners have a good program of instruction before the contest team is selected. Secondly, if the classroom instruction is planned and executed well, the team will need much less after school training. Therefore, by good instruction, many instructors are actually spending less time with better results.

Before spending excessive time training contest teams, we should plan course and enterprise materials thoroughly. This planning will pay off, not only in time saved in training, but in better overall results. Planning will result in more learning for *all* students which is our objective.

6. *There should be periodical changes made in the contests.* When asked the question, "Do you think any changes should be made in the contests?" the answer was "yes" in all cases. Although the suggested changes varied widely, there was one point which turned up in almost every response. This point was the feeling that the contests should be studied and revised frequently. This is being done in some contest areas; whereas, in other areas very little is being accomplished.

These views were tried in my department and found most successful. A course was set up in the area of farm mechanics for the experiment. Farm mechanics was chosen because it was a contest not previously entered and with which I was not familiar. Starting two years ago, the farm mechanics teaching program was given a complete overhaul. A few new areas were added and some of the old areas were renovated. This new program was used in regular classroom teaching to all vocational agriculture students. Parts were scheduled each year, so that by the time a boy graduated with four years of vocational agriculture he would have studied all areas. A large portion of the program was scheduled for Agriculture I, with smaller portions scheduled in each advanced class.

Here is how the team was trained. Besides regular classroom sessions, the team had several special sessions. Two weeks before the sub-district contest, the team was selected and trained. A total of two nights, one night each week, and several study hall periods were used as training sessions. After the sub-district contest, a similar two weeks training preceded the district and state contests.

Before starting under the new plan two years ago, I had difficulty finding projects for the boys to build. The shop was "large and spacious" with very little student initiated work. However, in the last two years, there has been a gradual increase of interest. Along with an increase in interest came an increase in shop projects, and with an increase in projects came a decrease in the "large and spacious" shop. This past year many projects could not be built due to lack of space, tools, and equipment. Two years ago, I would not have believed that the shop would be overcrowded and that conditions would be such that all projects could not be built.

Along with an increase in interest came an increase in skill and self-confidence. The latter is important because it is needed before a student will plan and build a large project. The planning and building of such projects will prepare the student for the time when the vocational agriculture instructor will not be there to advise him in each step of construction.

I believe FFA contests are being won by this plan or by a similar one, and that they are a valuable aid to teachers of vocational agriculture if used properly. As teachers, we must use every means available to gain interest and establish a need in our students. FFA contests can help, so *let's use* them, not *mis-use* them.

Recording and Evaluating the Farm Mechanics Program

HAROLD J. HAYNES, Vo-Ag Instructor, North Troy, Vermont

It has always seemed difficult for us to get boys to elect a variety of shop projects so that they become proficient in the many skills necessary to present-day building and machinery construction and maintenance.

During the past several years, we have used a new system in our department that seems to, in some measure, remedy this situation.

Early in the school year, when we are planning our program, we attempt to show the boys how the farm mechanics program will be integrated with classroom jobs, home farm and supervised farming program needs.

We make the farm mechanics program fit in this way and do not consider it a separate part of the course of study as an activity in itself.

The first step in our planning is to survey farms of enrollees. This is usually done during the summer months by the advisor with the individual student and a parent right on the home farm. During this survey, the management efficiency and farm mechanical needs are identified as felt needs on the part of the student and parent. The needs are then plotted for frequency and the most frequent ones used in developing the course of study and course calendar for each group to be taught.

The farm building and machinery construction and maintenance needs are listed and then, with the students, a list of the skills needed to meet these needs are developed. Usually this list will contain many more skills than can be taught in any one year so the boys classify the skills into various headings as woodwork, sheet metal, cold metal, etc. (See Fig. 1)

The next step in the program is the setting of class goals for accomplishment based on the skills listed under the classifications. This is necessary because of the fact that there always

tends to be a surplus of skills and some variety as to individual need.

Each boy is provided with a skill accomplishment sheet (Fig. 2) which he is to keep posted as to his progress. The sheets are arranged into a stapled tablet with the boy's name showing on the bottom, and the tablet is kept in the classroom on a convenient hook. At the end of the year, the sheet is taken from the tablet and placed in the student's permanent file in the department.

With this system, it seems that, inasmuch as the student has had a part in the planning, he becomes motivated and impressed with the need for the learning of a variety of skills and applies himself in a broader manner. It also helps in the evaluation of the individual's activities for marking purposes.

Fig. 1. Classified Skill Chart.

SHOP JOB TOOL FITTING
True Up Emery Grinder
Sharpen Wood Chisel
Sharpen Plane Bit
Sharpen Butcher Knife
Sharpen Draw Knife
Cut Hand Cross-Cut Saw Tooth
Joint, File, Set Hand Saw
Cut Rip Saw Tooth
Joint, File, Set Rip Saw
Gum Two-man Cross Cut Saw
Joint, File, Set Buzz Saw
Sharpen Scissors
Sharpen Axe
Sharpen Twist Drill
Sharpen Cold Chisel
Sharpen Scythe
Sharpen Mower Knife Bar
Hang Hammer Handle
Make Chisel Template

COLD METAL WORK
Cut Metal—Hack Saw
Cut Metal—Cold Cutter
Drill Metal—Brace
Drill Metal—Breast Drill
Drill Metal—Chain Drill
Drill Metal—Post Drill
Cut Threads
Tap Threads
Bench Stop
Bending Jig
Christmas Tree Stand
Foot Scraper
Shelf Brackets
Poultry Picking Hanger
Hack Saw Frame
Metal Milking Stool

LEVELING & DRAINAGE
Run a Line for Ditch

DRAWING & SKETCHING
Make Drawing of: (4 items)
Make Freehand Sketch
Prepare Bill of Material

ROPE WORK
Whip Ends
Crown Splice
Eye Splice
Short Splice
Long Splice
Rope Halter
Tie & Know Use of Square Knot
Tie & Know Use of Sheep Shank
Tie & Know Use of Bowline
Tie & Know Use of Timber Hitch
Tie & Know Use of Clove Hitch
Break a Heavy Cord

CONCRETE WORK
Test Ingredients
Build Section of Walk or Floors
Drill Hole in Masonry

FARM WORKSHOP
Inventory
Make List of Needed Tools
Plan Home Farm Workshop

FARM BLACKSMITHING
Build Forge Fire
Squaring, Rounding, Tapering
Barn Door Stop
Butchering Hook
Sack Holder
Staple Puller
Shape & Temper Pick
Shape & Temper Chisel
Shape & Temper Pick Punch

WOOD WORK
Four Wood Joints
Bench Hook
Nail Box
Chick Feeder
Hen Feeder
Hen Water Stand
Saw Horse
Step Ladder
Saw Filing Clamp
Tool Carrying Case
Clipper Box
Gun Rack
Work Bench
Tool Rack for Home
Farmer's Anvil
Wheelbarrow
Broom Holders
Knife Holders

PAINTING & GLAZING
Apply Paint—Priming Coat
Apply Paint—Second Coat
Sand for Natural Finish
Fill for Natural Finish
Stain for Natural Finish
Shellac for Natural Finish
Varnish for Natural Finish
Rub Varnish
Clean and Store Brushes
Remove Paint & Varnish
Reglue
Cut Glass

SHEET METAL
Operate Blow Torch
Tin Soldering Copper
Solder Hole
Solder Seam
Solder Patch
Feed Scoop
Poultry Feeder
Poultry Light Reflector
Repair Blow Torch
Operate Methane Torch
Dust Pan

ELECTRICITY
West Union Splice
Tap Splice
Replace Cap
Replace Socket
Repair Heater Cord
Construct Battery Bell Circuit
Construct Transformer Circuit
Construct Light Circuit
1 switch
Construct Light Circuit
2 switches
Install Convenience Outlet
Assemble Extension Cord
Connect Motor
Replace Motor Brushes
Reverse Motor
Replace Element in Iron
Make Lamp & Wire It

PLUMBING
Cut Pipe—Hack Saw
Cut Pipe—Pipe Cutter
Ream Pipe
Thread Pipe
Replace Faucet Washers
Replace Broken Pipe in Line
Exercise on Fittings
Plan Sink & Drain Installation
Run Copper Pipe
Run Plastic Pipe

POWER TRANSMISSION
Lace Belt—Rawhide
Lace Belt—Steel
Study Care & Use of Belt
Study Pulleys, Sizes, Speeds

TRACTORS & ENGINES
Study Principles of Operation
Ignition Systems & Troubles
Fuel Systems & Troubles
Cooling Systems
Clean Carbon & Grind Valves
Oiling & Greasing
Replace Gaskets
Clean & Adjust Plugs
Start 2 Cycle Gas
Adjust Carburetor
Replace Points & Adjust

FIELD MACHINERY
Repair Cultivator
Adjust Plows
Repair Harrow
Sharpen Disc Harrow
Replace Mower Knives
Replace Ledger Plates
Align Mower Guards
Check & Adjust Mower Register
Replace Mower Wear Plates
Check Tension for Binder Knotter
Adjust Knotter
Assemble Equipment

ELECTRIC WELDING
Assemble Elec. Welders for Use
Put Away Elec. Welder
Study Amperage Requirements
Study Rods Available and Their Use
Draw Bead
Make Filler Weld
Make T Weld
Repair Welds

ACETYLENE WELDING
Prepare Welder for Lighting
Light & Adjust Flame:
For Steel Welding
For Bronze Welding
For Cast Iron Welding
Study Identification of Metals and Rods
Study Heat Requirements of Various Weldments
Make Steel Weld
Make Bronze Weld on Steel
Make Bronze Weld on Malleable Iron
Make Bronze Weld on Cast Iron
Attach Cutting Torch
Cut Steel
Shut Off Welder

Fig. 2. Skill Accomplishment Sheet

Tool Fitting
(Goal Set) _____
1.
to
10.
Cold Metal Work
(Goal Set)
1.
to
8.
Rope Work
(Goal Set)
1.
to
7.
Farm Workshop or Home
1.
2.
3.
Sheet Metal Work
(Goal Set)
1.
to
7.
Tractors & Engines
(Goal Set)
1.
to
5.

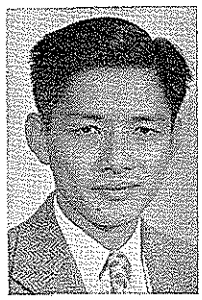
Wood Work
(Goal Set) _____
1.
to
15.
Painting & Glazing
(Goal Set)
1.
to
5.
Electricity
(Goal Set)
1.
to
10.
Field Machinery
(Goal Set)
1.
to
5.
Electric Welding
(Goal Set)
1.
to
8.

Stu Field	*B B B B+ B− A*	*$10.79*	*5/10/60*
Student's Name	Marks	Amt. Due For Material	Pd.

Data show that—

Education Pays Big Cash Dividends

FREDERICK K. T. TOM, Teacher Education, Cornell University



Frederick K. T. Tom

When appropriate, what speaks a more eloquent language than money? Can this language be used by parents and teachers to help boys to decide to continue their education? Every year thousands of youngsters decide to leave high school before graduation. Other thousands with sufficient ability and adequate financial resources do not continue their formal education beyond high school. How can we keep these "drop-outs" and "early-leavers" in school for as long as their ability permits? Perhaps "money" can be used successfully to influence them.

Recent figures from the Bureau of the Census show that it pays handsomely to go to school. Whereas men 14 years of age and over who completed only 8 years of schooling had a median income in 1958 of only $3,214, those who completed high school earned $4,548, those who finished 4 years of college, $6,374, and those with 5 or more years of college education had a median 1958 income of $6,926. As a result of estimations based on the above figures, one may say, "For our country as a whole, each year of high school is worth to an individual $333 per year of working life (the difference between $4,548 and $3,214 divided by 4 years) and each year of college is equivalent to $456 per year of working life (the difference between $6,374 and $4,548 divided by 4 years)."

Additional information from the Bureau of the Census showing the relationship between education and income is shown in Table 1. The reader will note that as the number of years of schooling completed increases, the level of income also rises.

The writer does not imply that financial considerations are the only ones that should be taken into account, for he remembers reading of the college professor who spoke words of wisdom when he said to his materialistically inclined son, "It's not what you make but what you make of yourself that counts." The writer is not unmindful of the fact that a good education allows one to enter prestige occupations, to live a richer and fuller life, to have a higher standard of living, to develop his capacities to the fullest, and to make a bigger contribution to society. It is when these latter reasons fail to influence a youngster to remain in school that parents and teachers may need to resort heavily on the premise that in spite of the cost, time, and effort needed, *education pays big cash dividends.* □

Table 1. Education and Income of U. S. Males 14 Years and Over in 1958[1]

Years School Completed	Median Income
Less than 8 years	$1,905
8 years only	3,214
1-3 years of high school	3,594
4 years of high school	4,548
1-3 years of college	4,924
4 years of college	6,374
5 or more years of college	6,926
All income recipients	3,742

[1]U. S. Dept. of Commerce, Bureau of the Census. "Income of Families and Persons in the United States: 1958." Current Population Reports, Series P-60, No. 33. January 15, 1960. Table 26, p. 38.

August 22, 1960

A Record of Performance

JOHN W. ALLISON, Teacher of Agriculture,
China Grove, North Carolina

TO WHOM IT MAY CONCERN:

Certain critics of our vocational agriculture program profess to believe it is harmful for students of the high school group to take four years in our program. This year three former China Grove High Future Farmers have made phenomenal records that should disprove such beliefs. There were 5 others who received college degrees, making 8 in one calendar year from one chapter.

The three young men, Glenn W. Patterson, Richard Conard Fluck, and Aaron Wayne Overcash finished their courses at N. C. State College this year with honors and will be heard from in the future. While taking vocational agriculture at China Grove, all three of these young men were members of a winning parliamentary procedure team and were very active in other school circles, as they also were later at N. C. State College.

Glenn W. Patterson, son of Mr. and Mrs. Wayne Patterson of Rt. 1, China Grove, N. C., finished this June in agriculture and biological chemistry. He is now teaching at the University of Maryland with a teaching fellowship while working toward his Master's degree. While at State he was treasurer and kitchen manager of Alpha Gamma Rho fraternity, secretary of the Interfraternity Kitchen Managers Association, recipient of a Smith Douglass scholarship and a talent for service scholarship. He was also very outstanding at China Grove High School where he held the top student job, President of the Student Council.

Richard Conrad Fluck, son of Mr. and Mrs. A. C. Fluck, Rt. 7, Salisbury, N. C., finished this June in agriculture engineering. He is now working toward his Master's degree in the same field at N. C. State College. While at State, he was a member of Alpha Zeta, Tau Beta Pi, Phi Kappa Phi, Gamma Sigma Delta, and ASAE. He was first vice-president of the National Unit of the ASAE. He was a member of the Engineers.

Council, Chairman of the Engineers Fair Committee and was selected as the outstanding student in agriculture engineering department in 1960. He was the recipient of the Wm. H. Danforth Summer Fellowship.

Arbon Wayne Overcash, son of Mr. and Mrs. L. M. Overcash, Rt. 5, Salisbury, finished this June in agricultural engineering. At present he is working for the Virginia Power and Light company. While at State, he belonged to the ASAE for three years, was a member of Alpha Zeta and was marshall his junior year. He received a Purina Scholarship and a Winslow Foundation Scholarship which paid a total of $2000.00. He was outstanding in high school, being president of his senior class and also president of the Beta Club.

We hope this might be used for publication in one of the National Magazines. □

Selecting Students to Study Vocational Agriculture

ANTHONY MUMPHREY, Teacher Education, Louisiana State University

Anthony Mumphrey

Vocational education in agriculture is intended for those students who want, need and can profit by it. Such education is designed especially to meet the needs of persons fourteen years of age or older who have entered upon or who are preparing to enter upon the work of the farm or other agricultural occupations. The controlling purpose for this specific type of training is to fit individuals for useful employment. Vocational guidance at the secondary school level, then, should be concerned with assisting an individual to choose an occupation, prepare for it, enter upon the work, and make progress in it.

In retrospect, how well has the program of vocational agriculture in the public secondary school served the purposes and objectives for which it was intended?

Need for Selection

Farming has become a highly competitive, specialized business, demanding the services of the most capable farm managers and operators that can be trained. For this reason, teachers of vocational agriculture should be concerned with the quality as well as the number of students enrolled in their agricultural classes. The need for efficient managers and operators in farming and related occupations is becoming more acute as we continue to make vast strides in technological developments. Progress in science and invention has resulted in an increased demand for the technician and inventor and, simultaneously, has created great numbers of new jobs and profoundly modified the processes of many old jobs. Our economic achievements, as a nation, will always insure sufficient demand for persons trained effectively in the occupation of farming and other agricultural pursuits.

The position that our nation will assume as the leader of all nations in the world will depend, in large measure, upon our efficiency as farmers and farmer trainers. Consequently, educators should be concerned with the selection of young people possessing interest and aptitude for agricultural occupations and this responsibility should be shared by all who are explicitly assigned guidance functions in our public schools.

Methods of Selection

Several methods are presently being employed in our public schools for the selection of students to study vocational agriculture. The methods more frequently used are:

a. The teacher of vocational agriculture counseling with prospective students near the end of the school session.
b. Students selecting the course without teacher counsel.
c. Students being required to take one or more years of vocational agriculture due to limited curricular offerings in the school.
d. The school counselor assigning students to vocational agriculture on the basis of test scores and interviews with students.
e. A cooperative program of student placement, including student, parent, teacher of vocational agriculture, counselor and principal.

The cooperative program of student placement appears to be more appropriate and democratic than any of the other methods and projects a significant correlation to the establishment and maintenance of continuity in the program.

Who Should Select Students?

Since the passage of the National Defense Act of 1958, considerable interest has been stimulated in the training of certified counselors and in the use of tests to measure interests, aptitudes, intelligence and achievement, and specific funds have been authorized for these purposes. Certainly, the information gained from the analysis of data derived from these instruments can serve a most useful purpose in student placement if the cumulative records are available for use by competent members of the school staff. The school counselor, being especially trained in guidance, can make a wholesome contribution to the proper selection of students for the various curricula; however, it would not be in the best interest of the department for the teacher of vocational agriculture to completely relinquish his responsibility of selection of students to any other individual. The agricultural instructor has had considerable formal training in the process of selecting students for agricultural training and is more familiar with the farming occupation than any other member of the school staff. He should, therefore, continue to play a leading role in student selection; the subsequent development of the program of vocational agriculture in his school and community is dependent upon the continuance of this practice.

Suggestions for Selecting Students

The procedure for placing a student in a specific curriculum does not follow a stereotype pattern; therefore, individuals responsible for guidance services should exercise every precaution to insure appropriate placement of students in the various

curricula. Usually, the school has sufficient information on students, such as: aptitude tests, interest inventories, intelligence and achievement tests, to insure a creditable job of placement. How and by whom this information is used, then, are the most pertinent questions which concern educators.

During the school session, the counselor, in conference with the teacher of vocational agriculture and principal, may list the names of students who have indicated their interest and have aptitude for the study of agriculture. There will probably be other students in the school who have already visited with the agricultural instructor relative to their interest in this specific field. A meeting should be arranged as early as possible with all prospective students for the purpose of familiarizing them with the program of vocational agriculture.

The list of prospective students in vocational agriculture will be finalized after the consideration of all information available in the school. Next, the teacher of vocational agriculture should visit the home of each student to insure that parents get a comprehensive understanding of the program and are willing to provide the facilities necessary for the development of a farmer-training program. After securing the consent and cooperation of the parent, the teacher of vocational agriculture enrolls the student and the counselor prepares the remainder of his program of studies.

This procedure serves to implement the functions of guidance in the school more effectively, brings about a more meaningful concept of the program of vocational agriculture and, finally, will most assuredly result in the establishment and maintenance of continuity in the agricultural program in the school and community. □

Themes for Volume 34 of *The Agricultural Education Magazine**

1961

July—*Agricultural Education at the Crossroads*—differing concepts in philosophy concerning the role of vocational agriculture in the public schools; where we are going; what we ought to be doing; changes needed or anticipated; ideas about direction; projection of plans.

August—*Making Vocational Agriculture Broader Vocationally*—the changing demands in agriculture; opportunities closely related to farming; cooperating with related agencies in broadening the vocational opportunities provided by the vocational agriculture program.

September—*Materials and Methods*—new ideas in methods of teaching; audio-visual techniques; television; using the local community as a laboratory; teaching problem solving; psychology in the learning process.

October—*Lay Participation*—the need for lay participation; methods of involving laymen in program planning; citizens committees and advisory groups; public relations activities as a two-day process.

November—*Impact of Industrialization on Vocational Agriculture*—increased technology needed in farming; spiraling costs and their effect on establishment in farming; federal legislation, the farm program and its effect on agriculture and vo-ag; need for new federal legislation; new demands on program planning in the local department.

December—*The Effect of Vocational Agriculture on College Success*—performance of vo-ag students in college; vo-ag as propagation bed for agriculture college enrollment; value of FFA experiences on college success; fields of college entrance of vo-ag students; holding power of colleges for former vo-ag students.

1962

January—*Is the Farm Mechanics Program Keeping Up?*—relating farm mechanics to the experiences of students, both in-school and out-of-school; upgrading facilities and procedures; time allotments; color dynamics and safety.

February—*Administering the Vocational Agriculture Program*—relationships with principal and teachers; cooperation with the total school program; supervising beginning teachers; assisting experienced teachers with their problems; cooperative program planning; cooperation among related agencies, agricultural college, community, and department.

March—*The FFA, Past and Future*—accomplishments, goals; ideas that worked, ideas that may work; changes made, changes needed; philosophy of the past, philosophy of the future; collegiate FFA programming; FFA Foundation.

April—*The Vocational Agriculture Teacher's Role in Guidance*—guidance activities provided by the vo-ag teacher for the total school program; occupational information useful in vo-ag departments; providing referrals for students; knowing the employment opportunities in a community; student records kept in the vo-ag department.

May—*Planning for the Summer*—planning summer programs of work; planning in multiple teacher departments; policies for summer school attendance; summer tours and educational camping trips; field demonstrations.

June—*Improving the Quality of Farming Programs*—using the summer to improve programs; placement for farm experience; placement for other agricultural experience; making farm visits more educational; visiting pre-vo-ag boys prior to fall enrollment; promoting parental cooperation.

Little change is anticipated in the format of the *Magazine*. Volume 33 has been a clear, concise, well-organized volume, so the editor-elect sees little value in changing for the sake of change.

All articles must be submitted three months in advance of the publication date. You are urged to submit pictures with your articles. Bear in mind that they must be clear and must relate to the article to be of greatest value.

The *Magazine* can continue to serve a vital need in agricultural education if we continue to submit articles of depth and quality. You are urged to use the *Magazine* as a sounding board for differing ideas. □

*Prepared by T. W. Gandy, Editor-elect of the *Magazine*.

Where Do They Go—After Graduation?

Study gives answer for Kansas

HOWARD R. BRADLEY, Teacher Education, Kansas State University

Howard R. Bradley

What occupations do the Kansas vocational agriculture students enter? What per cent of the students are now farming or in farm related occupations? If these young men are not in farming or farm related occupations, have they entered college or gone into the armed forces? Has their marital status seemed to affect the occupational choice?

A five-year study concerned with determining the occupational status of the 1959 high school graduates in Kansas who have had four or more units of vocational agriculture has been initiated in an effort to answer these questions. The results from the first year's investigation have been tabulated and some interesting yet not startling findings have appeared.

In every state, each five years, the state board of vocational education must submit to the U. S. Office of Education a program or plan for learning activities for approval by the U. S. Commissioner of Education. In order to more adequately determine the learning activities to be included in this program there has been a need in Kansas to discover the types of work into which the high school graduates with four or more units of vocational agriculture have entered.

Through the cooperation of Kansas teachers of vocational agriculture, 144 questionnaires of the 196 submitted were used in obtaining the information which was desired. The usable returns included the names and the January 1, 1960, occupational status of 836 boys graduating in 1959 from the high schools of Kansas. This and other pertinent information such as college attendance, service obligations, mortality rate, and marital status were a part of the data collected. Those students having taken four or more units were classified as having a major in vocational agriculture and were therefore included in this study.

One of the basic objectives in undertaking a study of this type was to find out if fewer students from vocational agriculture are now going into farming as an occupation than there were five years ago. Gelhbach's[1] study of 1955 indicated that 42.3 per cent of the 1948 Kansas high school graduates were in the occupation of farming after being out of school for seven years. This same study indicated 7.0 per cent in farm related occupations. Many workers in the vocational agriculture field are of the opinion that a number of young men go into farming as an occupation after having tried nonfarm occupations for a few years.

As of January 1, 1960, approximately one-third (31.2) of the Kansas, 1959, vocational agriculture graduates were engaged in farming. Another 7.6 per cent were engaged in farm related occupations.

Nonfarm related occupations account for 13.4 per cent of the individuals and 10.7 per cent were in one of the branches of the armed forces six months after graduation. Only one of the 1959 high school students majoring in vocational agriculture was deceased in this same period of time.

The author has believed for some time that marital status is a definite influencing factor in the occupational choice of vocational agriculture students. A comparison of the occupational status of the single and married 1959 graduates is shown in Table 1. Only one-third (9.8 per cent) as many married students were attending colleges as single students (34.7 per cent). There were no significant differences between the two groups in the areas of trade and business school and in farming. However, a noticeable trend was observed in the farm related and nonfarm related occupations. Over twice as many married graduates were in farm related occupations and approximately three times more graduates were in

[1]Gelhbach, Walter Roy, "A Study of the Present Occupational Status of 1941 and 1948 Kansas High School Graduates Having Two or More Units of Vocational Agriculture." M. S. Report, 1955, Kansas State University.

TABLE 1: A COMPARISON OF THE JANUARY 1, 1960, MARITAL-OCCUPATIONAL STATUS OF THE 1959 GRADUATES HAVING FOUR OR MORE UNITS OF VOCATIONAL AGRICULTURE

Area	Marital Status		Univ. and College Students		Trade and Business Schools		Farming		Farm Related		Non-Farm Related		Armed Forces		Deceased	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
State of Kansas	Single	785	93.9	272	34.7	31	3.9	245	31.2	55	7.0	95	12.2	86	10.9	1	.12
State of Kansas	Married	51	6.1	5	9.8	2	3.9	16	31.4	8	15.7	17	33.3	3	5.9	0	.00
State of Kansas	Total	836	100.0	277	33.2	33	3.9	261	31.2	63	7.6	112	13.4	89	10.7	1	.12

nonfarm related occupations as compared to the number of single graduates in these occupations six months after graduation. Another noticeable difference was that about one-half as many married graduates were in the armed forces as were their single counterparts.

The data in Table 1 indicates that approximately three-eighths of the 1959 high school graduates majoring in vocational agriculture were in farming and farm related occupations, one-third in universities and colleges, one-eighth in nonfarm related occupations, one-tenth in the armed forces, and one-twenty-fifth in trade and business schools.

When one considers that 10.7 per cent of the 1959 graduates majoring in vocational agriculture were in the armed forces six months after graduation, it would not seem to be unduly optimistic to assume that four per cent of this group would take their place in farming or farm related occupations upon returning to civilian life.

As only 6.1 per cent of the individuals in the 1959 graduating class were married six months after graduation, there were some noticeable differences between the occupational status of the single and the married group. Married students were attending institutions of higher learning and going into the armed forces at a decidedly lower rate than the single men. On the other hand, they were entering farm related and nonfarm related occupations at a much higher rate. One interesting observation was that the married and the single students were entering farming and going to trade and industrial school at approximately the same rate.

With the information that has appeared at the end of the first year of this study, it appears that the per cent in farming and farm related occupations is higher than might have been anticipated so soon after graduation. The need of teaching the business of farming continues to be an important function of the vocational agriculture program. □

Forest Practice Instruction

In Public Schools

ALFRED O. NIEMI, Northern Michigan College, Marquette, Michigan

Alfred O. Niemi

Do any of your students have farm woodlots at home? Does your school operate a school forest for instructional purposes? Generally, do you feel that teachers of vocational agriculture teach forest practices as extensively as that recommended by expert opinion? Or if you are a teacher of general agriculture or conservation, do you teach forest practices as extensively as you probably should? Do you feel that owners or operators of forest lands should receive more extensive instruction in this field than high school students? What are some of the forest practices you might teach your high school students and adults?

Some of these and other questions remained unanswered until the winter of 1959 when a jury of forestry authorities, including foresters, forestry education persons, and other professional people in education, expressed their opinions on some of these question.* Also, 139 teachers of vocational agriculture involved in this study and 57 teachers of general agriculture and/or conservation indicated the extent of instruction in forest practice being provided by them to adults and high school students.

If you are a teacher who may have overlooked the farm woodlot as a place for individual instruction, or the school forest as an opportunity for group instruction, the rest of this article may be worthwhile reading for you. See how you compare with other teachers in your field.

Of 139 Michigan teachers of vocational agriculture responding to a forest practice checklist, 30.2 per cent indicated they were teaching at least five forest practices to woodlot owners or operators, 77.7 per cent indicated they were teaching at least five practices to high school students *with* opportunity for practical experience in forestry, and 49.6 per cent were teaching forest practices to high school students *without* these practical experience opportunities.

Teachers of general agriculture and/or conservation were not expected to be teaching adults, however, 54.4 per cent were teaching forest practices to high school students *with* practical experience opportunities in forestry, while 31.6 per cent were teaching forest practices to high school students *without* these experience opportunities.

What Should I Teach?

If you were to consider one listing of 112 forest practices, you would teach at least eight of these without question. These eight practices which were unanimously chosen as desirable instruction for woodlot owners or operators by thirty forestry authorities are:

- Identify the commercially important hardwoods in Michigan. (It could apply to many other states.)
- Identify common trees and shrubs adapted for wildlife feed and cover.
- Run a compass line through a forested area.
- Locate a forest area by legal description.
- Learn crop-tree method of weeding (cleaning).
- Recognize seedlings from sprouts.
- Learn the amount to remove in thinning.
- Recognize the value of farm forests as a farm crop.

In addition to the above practices recommended for woodlot owners, at least one-half of the authorities agreed that 100 or more forest practices should be taught to woodlot owners or operators. Similarly, 100 or more practices were recommended to be taught to high school students *with* practical experience opportunities, while over one-half of the authorities recommended 80 or more of the 112 forest practices for high school students *without* practical experience opportunities in forestry.

The thirty forestry authorities were also asked to indicate the levels of

*Alfred O. Niemi, *Instruction in Forest Practice in Michigan Public Schools with Implications for Teacher Education*, (Doctor's Thesis, Michigan State University, East Lansing, 1960), 177 pp.

learning to which each practice should be taught to three groups of students usually taught by teachers of vocational agriculture. Should the student be taught to be *aware* or conscious of a practice; or should he be taught to *understand* or comprehend the meaning of a practice; should he be taught to have the *ability* or capacity to perform a task to a low level of skill; or should be taught to perform at the *skill* level or "doing level" and to a degree of expertness?

A general guide as to the possible level of learning to which the average forest practice should he be taught may be found in the following generalizations. Of the 112 forest practices listed, 39.3 per cent were recommended to be taught to the *ability* level to woodlot *owners* or operators, and 51.8 per cent were recommended to be taught to the *understanding* level to the *same adult group*. Of these same practices, 66.1 per cent were recommended to be taught to the *understanding* level to *high school students with* practical experience opportunities. Most of the practices, or 90.1 per cent, were recommended to be taught to the *awareness* level to *high school students without* practical experience opportunities in forestry.

It is expected that not all 112 forest practices could be logically included in a program of vocational agriculture or in other courses. Therefore, a listing of forest practices which were *recommended* for inclusion in the public school program *by at least three-fourths of the forestry authorities* follows. These are listed in nine different categories for the convenience of teachers who may want to use them as a guide. They may also be used as a reminder of other practices which are of a localized nature but which may be carried out on the home farm woodlot or school forest. The levels to which they were recommended follow the listing of the practice and percentages who recommended it. The number in parentheses is based on the key:

1– to be taught to awareness level of learning
2– to be taught to the understanding level of learning
4– recommended to be taught to the ability level
4– recommended to be taught to the skill level of learning

Forest Practices Recommended by Seventy-Five Per Cent or More of Michigan Forestry Authorities*

Practice	Per Cent of Jury Recommending For Adults	Per Cent of Jury Recommending For High School Students With Experience Oppor.
Tree Identification		
1. Identify the commercially important hardwoods in Michigan.	100.0 (3)	100.0 (3)
2. Identify the common undesirable shrubs & brush invading hdwds.	93.3 (2)	93.3 (2)
3. Identify the common undesirable hardwoods in Michigan.	93.3 (3)	93.3 (3)
4. Identify Michigan tree best adapted for nursery reproduction.	96.7 (3)	96.7 (2)
5. Identify tree species best adapted for pulpwood production in Michigan.	93.3 (3)	93.3 (3)
6. Identify tree species best adapted for Christmas tree production.	96.7 (3)	96.7 (3)
7. Identify common trees and shrubs adapted for wildlife feed and cover.	100.0 (2)	100.0 (2)
Forest Boundary Lines		
8. Learn points of forester's compass.	96.7 (3)	96.7 (3)
9. Run a compass line through a forested area.	100.0 (3)	96.7 (3)
10. Locate a corner post in a forested area.	96.7 (2)	100.0 (2)
11. Pace a chain and twenty chain distance.	96.7 (3)	93.3 (2)
12. Use and maintain a steel forester's tape.	86.7 (2)	80.0 (2)
13. Compute the acreage of a forested area.	96.7 (3)	90.0 (2)
14. Learn standard map symbols.	83.3 (2)	80.0 (2)
15. Read a State Conservation Department map.	96.7 (3)	96.7 (3)
16. Locate a forest area by legal description.	100.0 (3)	96.7 (3)
17. Map a forested area.	90.0 (2)	86.7 (2)
18. Classify land as forest land by the Michigan Land Judging Sheet.	80.0 (2)	76.7 (2)
19. Identify land as wildlife land by the Michigan Land Judging Sheet.	76.7 (2)	73.3 (2)
Tree Planting		
20. Recognize common forest soil types.	93.3 (2)	93.3 (2)
21. Recognize nonforest land.	93.3 (3)	93.3 (3)
22. Select desirable species for soil and site.	93.3 (2)	93.3 (2)
23. Select desirable age and stock size.	93.3 (3)	90.0 (2)
24. Recognize classes of nursery stock.	83.3 (2)	83.3 (2)
25. Heal-in nursery stock on arrival.	93.3 (3)	93.3 (3)
26. Plow furrows for planting on contour.	93.3 (3)	93.3 (3)
28. Plant seedlings in the furrow.	86.7 (3)	86.7 (3)
29. Plant by the slit method.	93.3 (3)	90.0 (3)
30. Plant trees by the hole method.	93.3 (3)	90.0 (3)
31. Plant trees and shrubs for wildlife feed and cover.	83.3 (2)	83.3 (2)
32. Plan or plant a windbreak.	93.3 (3)	90.0 (2)
33. Compute survival percentage on a planting of seedlings.	93.3 (3)	90.0 (2)
Woodland Weeding (Cleaning) and Thinning		
34. Learn crop-tree method of weeding.	100.0 (3)	96.7 (2)
35. Recognize seedlings from sprouts.	100.0 (3)	100.0 (2)
36. Recognize weed trees when small.	83.3 (2)	83.3 (2)
37. Recognize time to start weeding.	83.3 (2)	80.0 (2)
38. Recognize time to start thinning according to species, form and vigor.	90.0 (2)	86.7 (2)
39. Learn the amount to remove in thinning.	100.0 (3)	96.7 (2)
40. Learn how to protect edge of stand.	86.7 (2)	83.3 (2)
41. Recognize dominant, codominant, intermediate, & suppressed trees.	96.7 (3)	96.7 (2)
42. Recognize tolerant and intolerant species as a guide in thinning.	90.0 (2)	90.0 (2)
43. Learn approximate spacing in age classes.	83.3 (2)	80.0 (2)
44. Learn amount to thin in good and poor sites.	83.3 (2)	83.3 (2)
45. Learn spacing according to size classes.	83.3 (2)	83.3 (2)
46. Recognize desirable seed trees for natural reproduction.	93.3 (3)	96.7 (2)

Plantation Pruning		
47. Choose right tools for pruning.	96.7 (3)	96.7 (3)
48. Prune according to d.b.h., height, and species.	93.3 (3)	93.3 (2)
49. Prune to desired crop-tree numbers.	90.0 (3)	90.0 (2)
50. Cut limbs flush with trunk of tree.	96.7 (3)	96.7 (3)
51. Cut limbs at maximum of 2" in softwoods, 1½" in hardwoods.	86.7 (3)	83.3 (2)
52. Prune crop-trees according to height and/or d.b.h.	86.7 (2)	86.7 (2)
53. Remove not more than one-half of live crown or tree height.	90.0 (3)	90.0 (2)
54. Maintain a one rod dense border when pruning next to openings.	76.7 (2)	73.3 (2)
57. Shear Christmas trees for best form.	93.3 (3)	80.0 (2)
Timber Cruising		
58. Use a Biltmore stick for measuring trees.	96.7 (3)	93.3 (2)
59. Use calipers for measuring tree diameters.	86.7 (2)	80.0 (2)
60. Stake out a one-fifth acre plot in a representative area.	83.3 (2)	86.7 (2)
61. Estimate the board feet in a one-fifth acre plot.	93.3 (2)	93.3 (2)
62. Use a tally sheet in cruising.	93.3 (2)	86.7 (2)
63. Use a volume table in computing board feet in trees tallied.	83.3 (2)	80.0 (2)
64. Compute the area cruised in a strip cruise.	80.0 (2)	76.7 (2)
66. Lay out a method of making a ten-percent cruise.	76.7 (2)	76.7 (2)
67. Compute the total area represented by a sample cruise.	80.0 (2)	76.7 (2)
68. Compute the estimated total bd. ft. in an area sample cruised.	76.7 (2)	73.3 (2)
Log Scaling		
70. Compute the approximate bd. ft. in a log by the Doyle Rule, Scribner Decimal C, and the International ¼" Rule.	93.3 (3)	93.3 (3)
72. Estimate or compute log defects in board feet.	90.0 (2)	86.7 (2)
73. Compute gross and net bd. ft. in a log by local log rules.	83.3 (2)	80.0 (2)
74. Recognize the common defects in logs.	93.3 (3)	83.3 (2)
76. Compute standard cords in a stacked pile of pulpwood.	93.3 (3)	93.3 (3)
77. Compute the cords of pulpwood in a sloping pile.	93.3 (3)	83.3 (2)
Timber Harvesting and Marketing		
79. Mark trees to remove according to risk, cull, or form.	96.7 (3)	90.0 (2)
80. Mark trees to remove according to species or crown position.	96.7 (3)	90.0 (2)
81. Mark trees to remove according to size-class or maturity.	93.3 (2)	93.3 (2)
82. Learn size limits for sawtimber, poles, and saplings.	80.0 (2)	76.7 (2)
86. Recognize poor quality poles for removal from stand.	96.7 (3)	90.0 (2)
87. Recognize poor quality saplings for removal.	83.3 (2)	76.7 (2)
88. Recognize wolf trees for removal.	96.7 (3)	90.0 (2)
89. Recognize the different cutting methods when observed in the field.	83.3 (2)	80.0 (2)
90. Determine the time to clear-cut aspen for maximum sprouting.	83.3 (2)	73.3 (2)
91. Determine the cutting procedures when overstocked with sawtimber, understocked with small sizes.	76.7 (2)	70.0 (2)
93. Determine the cutting procedures when understocked with all sizes.	76.7 (2)	66.7 (1)
95. Determine the most profitable market and form in which to sell trees removed in selection cut. (Softwoods)	90.0 (3)	86.7 (2)
96. Determine the yield of pulpwood in a stand ready for cutting.	80.0 (2)	80.0 (2)
Miscellaneous		
103. Obtain assistance from forestry specialists when needed.	96.7 (3)	93.3 (3)
104. Recognize times when forestry specialists should be requested.	93.3 (3)	90.0 (3)
105. Recognize the value of farm forests as a farm crop.	100.0 (3)	96.7 (3)
106. Recognize and report to proper forest authorities any unusual trees for species, age, or site.	80.0 (2)	80.0 (2)
108. Determine the time to collect cones for nursery seed.	90.0 (2)	90.0 (2)
111. Identify and control the common insects of conifers found locally.	90.0 (2)	90.0 (2)
112. Recognize the relationship between trees, soil, and water supply.	90.0 (2)	90.0 (2)

*These were the forest practices recommended by twenty-three or more of the thirty forestry authorities used as a jury, and include the percentages for adults and high school students *with* practical experience opportunities in forestry. Most of the practices are applicable to other states.

Investigator's Conclusions

As a result of the study, the following conclusions were reached which may be of value to teachers or prospective teachers of forest practices:

1. There is a body of forest practices which should be taught through the public schools, both to adults and to high school students.

2. Woodlot owners or operators (adults) and high school students *with* practical experience opportunities in forestry are in need of instruction in forest practices to higher average levels of learning than are high school students *without* these experience opportunities.

3. The level of learning recommended for adults in the program of forest practice instruction is not significantly different from that recommended for high school students *with* practical experience opportunities.

4. There is no significant difference in the number of the forest practices in the foregoing list which should be taught to adults and the number which should be taught to high school students.

5. Generally, forest practice instruction is not provided at as high a level of learning in the public school program for woodlot owners or operators and high school students as is recommended by forestry authorities.

6. In the light of the enormous gap existing between what expert opinion recommended and what was being taught in many public schools, the writer believes that the following suggestions on improvement in forest practice instruction might apply:

a. Conduct training sessions, for teachers in the field, in areas where forest practices logically should be taught.

b. Conduct summer camps for FFA members and advisors for the purpose of training in forest practices.

c. Secure the services of personnel of wood-using industries to promote education in better forest practices.
d. Utilize the services of the state forestry extension division for continuing in-service training to develop adequate abilities in teachers. □

Outline for a—

Parent Night Program

LEWIS H. VAUGHAN, Vo-Ag Instructor, Paris, Mo.

PARENT NIGHT PROGRAM

I. Welcome—Superintendent.

II. Introduction of Parents—Vocational Agriculture I Boys.

III. The Program of Vocational Agriculture (brief version). Each given by a boy except C, which is given by instructor.
   A. Classroom Study, Field Trips, and On-Farm Instruction.
   B. Farm Mechanics.
   C. Farming Program and Parent's Cooperation.
   D. Introduction to FFA.
   E. Paris Chapter Activities:
      1. Shows and Contests.
      2. Marketing Days.
      3. Gilt Chain.
      4. Conservation.
      5. Finances.
      6. Socials.

IV. Getting the Right Start in Vocational Agriculture. (graduated FFA member with higher degree)

V. The High School Program—Principal.

VI. Tour of Classroom and the Library.

VII. Tour of Farm Mechanics Shop.

Lewis H. Vaughan

Parent Night has been one of the most important scheduled activities of the vocational agriculture program at Paris High School. We have accomplished on this night what would have taken days to do otherwise and all of us are pressed for time.

Annually, about the second or third week of school, we invite all Vo-Ag I students, their parents, chapter officers, and other interested visitors to the school for group orientation, and for the purpose of informing the parents of the first year boys of the many activities of our agriculture department and the FFA. We hope they will further acquaint themselves with our purposes, as we highly stress the parent's help to their boy in making a place for himself in the agriculture field. Of course, this night does not replace the orientation in the class room—it highlights it.

The program given here is of our Parent Night conducted by the chapter boys last year. It can vary from year to year and stress different angles of approach as does ours. Our FFA president has always presided over the

SCRIPT FOR A SET OF COLOR SLIDES
PLAYING THE PARENT'S PART IN THE BOY'S FARMING PROGRAM

Idea to Convey	How Conveyed	Slides Taken
I. Importance of agriculture—	A. Historical leadership and early recognition of agriculture.	1. Portrait of Washington. 2. Portrait of Lincoln.
	B. Modern day importance and need of agriculture with production of food and fiber.	3. Shot of mass of people.
	a. Emergencies.	4. Shot of soldiers at war.
	b. Peace and tranquility.	5. Shot of farmer sleeping on hammock tied between two shade trees.
	c. Physical and mental health.	6. Youngster at table with family eating wholesome food and/or shot of boy with dog, calf, or horse.
II. Getting started in farming—	C. Relate story on conception of agricultural ladder. Steps:	7. Boy taking first step up a long ladder. Have signs on different rounds of ladder showing each step.
	a. Boy worked on farm. b. Hired out at age of 21. c. Bought few stock, horsepower and its equipment. d. Rented farm. e. Bought farm.	8. Shot of end of about 6 rows mature corn in field. Hang sign reading MINE between 2 stalks and another sign reading LANDLORDS between adjacent 2 stalks.
	D. Show today's fast rate of living requires more rounds and less space between rounds. Farming too costly to wait.	9. Shot of young farmer on tractor with full line of equipment assembled in close background.
	E. Develop question. How can you as parents help children get started? Answer: Let him have opportunity, have voice, have start of farming program of his own. Show possible ways parents may help.	10. Shot of a father in foreground scratching his head in thought while looking at his boy tinkering with an old jalopy. 11. Shot of boy with parents in bank borrowing money.

		12. Shot of boy and parents working out farming program agreement.
		13. Shot of boy making his own decisions by boy looking through a tripod telescope in process of laying out terraces.
III. Scope of farming—program for boys—	F. Show possible farming program to meet standards at different age levels for high school boy. Start with Fr., Soph., Jr., Sr. and out-of-school. Signify increasing numbers of additional enterprises and increasing number individuals in enterprise as progress through age level.	14. Shot of boy and father, side by side, looking at sow and litter directly in front of them.
		15. Close-up shot of home farm photo with corner blocked off and labeled, Jim's 5A. of corn. Boy will hold photo.
		16. Shot of 3 milk cows being driven to barn by boy.
		17. Shot of brood of small chicks.
		18. Shot of 6 fattening steers eating at trough while boy feeds them.
		19. Shot of 10 head of ewes on pasture.
		20. Shot of tall corn in field.
		21. Shot of 25 head hog herd.
		22. Shot of half mature soybeans growing in field.
		23. Shot of 20-25 ewes with lambs on pasture.
		24. Shot of used medium-size tractor plowing land with boy driving it. (Signifies farm machinery investment.)
		25. Shot of boy receiving grain check from elevator operator.
IV. Outcomes of own farming program—	G. Show boy learns by doing.	26. Shot of boy castrating pig.
		27. Shot of boy welding.
	H. Show areas of life where a farming program will help finance, bring results and where assistance from parents means much.	28. Shot of boy depositing money in bank.
		29. Shot of a young farmer buying small self-propelled combine.
		30. Shot of a young man studying contents in test tube (Signifies college).
		31. Shot of young man with girl friend leaning over board fence (Marriage).
		32. Shot of modern farmstead with mail box in foreground. (Suggests ownership of farm and full-time farming.)
V. Necessity of parents early participation—	I. Show how early start will facilitate early establishment in farming.	33. Shot of young farmer near top of ladder round properly marked, established in farming.
		34. Shot of boy and father shaking hands symbolizing a completed partnership agreement.
		35. Shot of young farmer in voting booth. (Suggesting response to responsibilities of a good citizen.)
	J. Reiterate source of boy's early establishment in farming.	36. Shot of boy and his father holding a father-son agreement (in foreground) with mother serving refreshments (in background).

program, which is usually about one hour and forty-five minutes (including the tours). We feel this is not the only answer for a Parent Night program, but it is one that has worked for us. A typical comment from patrons when asked questions on the effectiveness of the program by the writer is—"We get the point."

While the instructor will supervise the entire program and see that only pertinent matters are included in the talks for time saving reasons, he will also have to allot plenty of time to organize his part of the program. He probably should be the one to give the keynote talk and do it in such a manner that it will be impressive. He is the one best qualified to tell the complete story in as few words as possible.

Included in this article is a script with suggested color slides which is included in the instructor's part of the program (III-C). It is concise, complete, interesting, and informative while highlighting the point—"The Parent's Part in the Boy's Farming Program." This script and slides can be varied and adapted to suit local situations and conditions. We have even used appropriate cut-out pictures from magazines in a manner to signify growth in the boy's farming program scope from the first year as the story is told.

This script is prepared for use with colored slides (an up-to-date visual aid). The items, however, need constant reviewing for adaptation to latest agricultural trends and to meet changing local conditions. For instance, some of the latest studies on young men getting started in farming, especially at population centers, have concluded that emphasis must be placed on (1) partnerships, within and without families, part-time employment in off-farm occupations, and proprietorships as share tenants and/or owner-renters, (2) on use of adequate credit, and (3) educational assistance and formal education to operate a farm of adequate size. This later version of the agricultural ladder may need to be inserted instead of the old basic conception of the agricultural ladder steps leading from hired man to owner-operator, as certainly the boys of the first-year vocational agriculture program sooner or later at some age level will pass through the step of getting established in farming. □

Vocational Status of Ohio Graduates in Vocational Agriculture When Out-of-School One and Five Years

RALPH E. BENDER, Teacher Education, The Ohio State University

Ralph E. Bender

Two of every three graduates of vocational agriculture in Ohio are engaged in farming and farm-related occupations during their first year out-of-school. The number so engaged who are out-of-school five years is reduced slightly to approximately 60 per cent. At each of these periods approximately one out of four graduates is farming on a full-time basis. Nearly an equal number is farming part-time. However, when out-of-school five years, fewer are thus engaged, indicating that in some instances, part-time farming is an interim engagement pending the location of other full-time employment.

These data, which did not include persons in military service, were revealed by a study which involved 1335 graduates of 108 schools. The schools were selected at random from all over Ohio and represent the state both agriculturally and geographically.

A comparison of the data in this recent study with that of four previous surveys, also made by the writer, justifies the conclusion that approximately 60 per cent of the high school graduates in vocational agriculture, out-of-school five years, are engaged in farming or farm-related activity. There seems to be a slight decrease in recent years in the per cent engaged in farming; however, the total number engaged in agricultural effort remains fairly stable throughout the years.

Some Other Summary Statements

1. Graduates of vocational agriculture become engaged in many kinds of work. A large segment of these occupations require aptitude and ability in mechanics. Many common types of employment involve working with people. These aptitudes are frequently strengthened by experiences in the vocational agriculture program.

2. There is considerable variation concerning the activity in which graduates are engaged depending upon their location in Ohio. The number and relative attractiveness of opportunities for employment other than farming seems to be an important factor affecting employment of vocational agriculture graduates.

3. There is an increasing trend in the number of boys attending colleges other than agriculture. (8.8 per cent out-of-school one year as of March, 1960, compared to 6 per cent in 1958. The percentages in the College of Agriculture for the same years were 7.9 per cent and 7 per cent, respectively.)

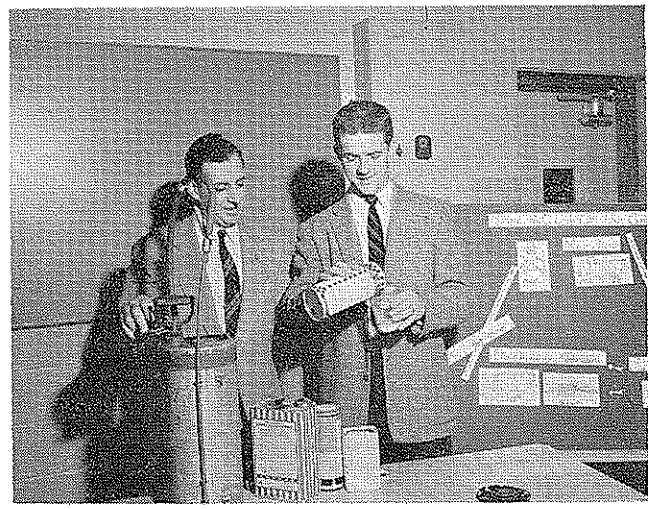
4. There has been a rather consistent decrease during the last five years in the percentage (22 to 13) of graduates in military service among those out-of-school five years.

Occupations Related to Farming

Approximately 10 per cent of the graduates in vocational agriculture out-of-school one to five years are engaged in farm-related occupations. Eighteen of the 108 teachers reporting indicated that one or more of their graduates worked at an elevator or a feed store. The second most common type of work was farm machinery sales and/or service. Trucking of such commodities as fertilizer and milk was likewise a frequently named kind of employment. Many other kinds of employment were listed varying from teaching vocational agriculture to service as a bee inspector. The complete list with the number of teachers reporting one or more graduates includes the following:

18 Elevator or feed store
15 Farm machinery—sales or service
14 Trucking—fertilizer, milk, etc.
6 Teaching vocational agriculture
6 Livestock auction or market
5 Canning factory
4 Seed company
3 Farm Bureau
3 Carpenter or construction

The occupations of many graduates in Vocational Agriculture involve farm mechanics "know-how."



Many graduates sell farm supplies and services.

3 Ditch operator
3 Dairy plant
2 Federal Land Bank
2 Greenhouse
2 Welder
2 Forestry or lumber
2 Packing plant
1 Veterinary assistant
1 Ohio agricultural experiment station
1 Locker plant
1 Orchard
1 Race horse farm
1 Tree trimmer
1 Saw-mill operator
1 Ready-mix concrete
1 Associate county agent
1 Bee inspector
1 Grounds keeper

Occupations in Nonagricultural Work

Approximately 35 per cent of the graduates in vocational agriculture become engaged in nonagricultural occupations. Sixty-two of the 108 teachers reported one or more of their graduates working in a factory or industry. The number reporting employment as construction or carpentry, auto parts or mechanics, gas station, machinist, welder and plumber indicates the importance of the development and use of mechanical skills.

Work in retail sales was reported by 12 of the teachers. This kind of employment, in addition to those engaged as teachers, patrolmen, radio station personnel, advertising manager and Bible college student are undoubtedly making good use of some of the abilities for working with other persons as developed in the FFA program. The complete list with the number of teachers reporting one or more graduates includes the following:

62 Industrial or factory
20 Construction or carpentry
12 Retail sales
9 Auto parts or mechanics
8 Gas station
7 Machinist

TABLE 1. VOCATIONS OF GRADUATES IN VOCATIONAL AGRICULTURE IN OHIO OUT-OF-SCHOOL ONE AND FIVE YEARS

Vocations as of March 1, 1960	Percentage of Graduates 1959 Class	1955 Class
Farming—full-time	24.6	24.9
Farming—part-time	24.8	18.8
Related to farming	9.2	11.3
Attending College of Agriculture	7.9	4.3
Total in Agriculture	66.5	59.3
Nonagricultural work	24.6	34.6
College—other than agriculture	8.8	6.0
Total nonagricultural	33.4	40.6
Number of graduates in above analysis	617	485
Other graduates not included in analysis:		
Military Service	90	89
Occupations unknown	10	30
Deceased	3	11
Total number of graduates	720	615

Based upon responses from 108 of 114 schools queried.

5 Break truck
4 Office
4 Highway patrol or police
3 School teacher
3 Barber
3 Welder
2 Plumber
2 Telephone company
2 Lumber yard
1 Librarian
1 Cook
1 Bible college
1 Lineman—electric
1 Mail carrier
1 Excavating company
1 Radio station
1 Bank
1 Professional baseball
1 Advertising manager
1 Hospital technician

Some Variations Throughout Ohio

There was considerable variation concerning the activity in which graduates were engaged depending upon their location in Ohio. The percentage of boys out-of-school one year, engaged in farming and farm-related occupations, ranged by supervisory districts from 54 to 83 per cent. Somewhat surprising is the fact that the highest percentage engaged in farming and related occupations is found in southeastern Ohio where agriculture is a less profitable venture, whereas the lowest percentage was found in west central Ohio. Some explanation is offered by the close proximity of the latter area to areas of high industrial activity.

There, likewise, was a variation in the extent of change in the vocational status for boys out-of-school one year as compared to five years. In northwestern Ohio, there was practically no change with 66 and 67 per cent respectively engaged in agricultural pursuits, whereas in north central Ohio, the percentage engaged in farming and related agricultural activity decreased from 82 per cent for one year out-of-school to 56 per cent for those out-of-school five years. Undoubtedly, the number of opportunities for employment other than the home farm, and the relative attractiveness of off farm work are important factors. □

Exchange of Ideas NVATA-1960

First Place, Region I— Price Outlook Contest

Idea secured from: A. H. TOWNSEND, Vo-Ag Instructor, Clarion, Iowa
By: DON MULLEN, Vo-Ag Instructor, Salinas, California

This contest can be readily prepared and easily administered. It is an interest getter whether used with the vo-ag students in farm management, the young farmers or adult farmer classes. It could be adapted to any group interested in marketing or selling of agricultural commodities.

To set up such a contest, use locally grown crops or livestock that are to be marketed at a future date, establish a couple of dates during the period of time classes or meetings are to be held for estimate of market selling price, determine marketing place for each commod-

Price Outlook Contest

Unit	Our School Product	Quality or Grade	Our Market Today's Price	My Guess for Feb. 1	Contestant My Guess for March 13
1 Ton	Alf. Hay	U. S. No. 2	$35.00	$37.00	$38.00
1 Bushel	Oats	Uncleaned	.92	1.00	1.10
100#	Beef	Prime	.25	25.75	etc.
1 Bale	Cotton	Long Staple	14.80	etc.	etc.
1 Dozen	Eggs	Large White	.31	etc.	etc.

Scored by	Placing	Total Score
Score		
2/1	3/13	
49	50	
47½		

ity and the present price. Let the group help so that everyone understands the why and where of the contest. Select your closing date for entries to be in judges' hands and the scoring system to be used.

An awards committee can help to liven things up still more. Appropriate awards may range from a large candy bar for high school students to cash awards or plaques for adults.

Below is a sample of how it can be set up but Hugh Townsend says by all means make it fit your community conditions. Results are guaranteed if you are really enthused and will follow through as suggested. Why not give it a try?

Scoring system: 50% for each guess = total 100 pts. Loss of one point for each $.25 off on livestock prices whether you are high or low based on actual market that day.* Example: Actual market February 1 on alfalfa hay was $38.00 per ton and on March 13, $38.00 per ton. Loss of one point for each dollar off on price of hay. Loss of one point for each two cents off on price of small grains per bushel.

*Adjust loss points to suit your community interests. The above are only given to show a method. □

First Place, Region II— New Agriculture Building Sidewalk

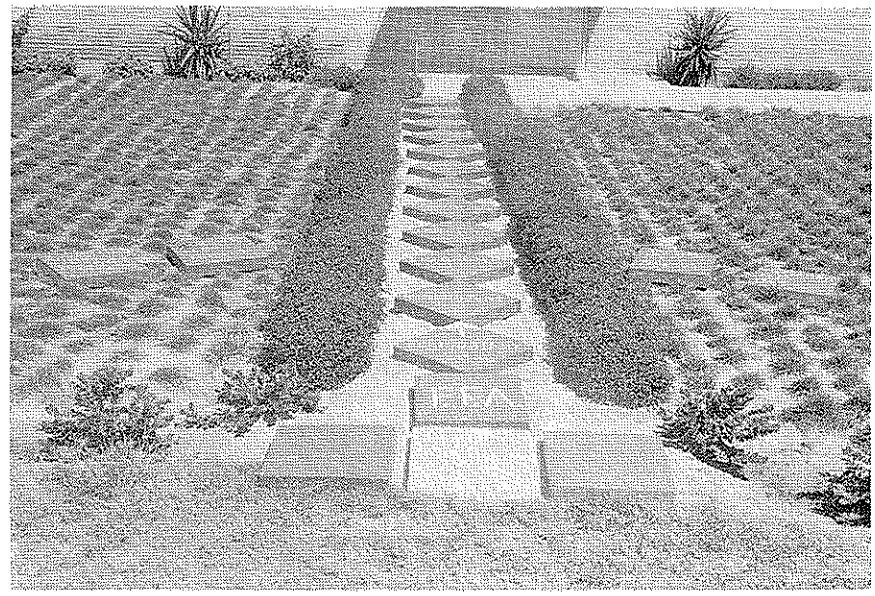
Idea secured from: W. Mieschner, Vo-Ag Instructor, Raymondville, Texas
By: Don W. Brock, Vo-Ag Instructor, Topeka, Kansas

For departments having a new building or planning one a very simple and colorful walk could be built to the front door. This would make a good shop project using concrete work.

The picture enclosed shows the finished project made by the Raymondville Future Farmer Chapter of Raymondville, Texas.

Sixteen concrete blocks 18"x18"x3" are necessary for the job. A 1-2-3 mix of concrete makes a good mixture to work with. After concrete is placed into your form work it with a wooden trowl several times to work all the gravel down ½ inch from the top of the concrete. This is necessary for writing the words into the top of block. The foundation words are: scholarship, sportsmanship, cooperation, service, citizenship, thrift, recreation, patriotism, leadership, character, and agriculture.

The Future Farmer foundation words are written one word in each block just at the right time as the concrete starts to set up. Each letter is pressed ⅜" deep into the slab. Give each block three coats of rubber base National Blue paint.



When this has dried go over each letter of each word with two coats of Corn Gold paint. When paint is dry your walk is ready to be put in place.

The blocks with the words written into them are placed in diamond shape because it gives more room to write the words. The first four blocks are placed in a square position. The front three blocks are painted Red, White, and Blue.

A person not familiar with Future Farmer work sees at a glance what the foundations of this excellent Farm Youth organization are. To Future Farmers and people who are familiar with our foundations, it always serves as a good reminder as they walk in your agriculture building.

The type of block may also serve as a means of inscribing and recognizing the names of all vocational argiculture teachers that have taught in that department. Placed beside your walk, it adds dignity to your building. □

First Place, Region III— Student Exchange Program

Idea secured from: H. R. Crawford, Vo-Ag Instructor, Sac City, Iowa
By: Don Davison, Vo-Ag Instructor, Washburn, North Dakota

This idea is suitable for vocational agriculture instructors to use in any state. It promotes education of farm boys through travel and the opportunity to see farming as it is carried on in other states.

The best method of conducting this project is to contact a vocational agriculture instructor in another state where the farming is different and work up an exchange of students between the two vocational agriculture departments. It is best to choose a boy who is observing and one who will be able to transmit ideas back to his home department and community. As an example of how this project will work, a boy from Sac City, Iowa would travel to Washburn, North Dakota and stay with a boy from the Washburn Chapter for a week and then the two boys would travel to Sac City and stay in the home of the Sac City boy. While the boys are at each community an FFA meeting should be held and the visiting boy can tell the other chapter how his chapter operates and something about the farming in his community. Each boy would only need to travel one way by himself and there would be no other cost except transportation for this project. Sometimes a service club will help sponsor this project. If a service club sponsors this project, the exchange student can participate at the service club meeting and sometimes a tape recording of the meeting can be exchanged between clubs with the boys. By all means when the exchange student returns to his home chapter he should be prepared to show pictures and give a talk about his trip and tell about the things he has learned and observed. □

First Place, Region IV— How to Conserve Storage Space

Idea secured from: Carl E. Nagy, Vo-Ag Instructor, Jeromesville, Ohio
By: J. Riley, Vo-Ag Instructor, Dearborn, Missouri

This idea can be used in shops that, due to size or wall space, have a tool storage problem.

In the past few years, peg boards have come into being in many vocational agriculture shops. Usually they are used as just a wall board or as the back of a cabinet, but in both cases only the wall space the peg board takes up is used.

To double your storage space, simply make the back of your cabinets out of a one-fourth inch peg board and then, instead of a plain wooden door or no door at all, make doors to the cabinets out of one-eighth inch peg board.

By this means, if the peg board back is six foot, you can make six more feet of storage pace simply by adding peg board doors. The rest of the cabinet can be made as usual. The back being of heavier peg board allows you to place heavy items on the back and lighter ones on the doors. □

First Place, Region V— Local Chapter FFA Scholarship

Idea secured from: Rex C. Bishop, Vo-Ag Instructor, Miami, Florida
By: Fred E. Lay, Vo-Ag Instructor Tabor City, N. C.

The Local Chapter FFA Scholarship idea originated at the Miami Jackson Chapter in Miami, Florida. The scholarship is designed to be given to one senior boy at high school graduation each year. It will be in amount of $100.00 per year for four years. Requirements for the schorlarship are that the boy needs it, that he major in any field of agriculture, and that he be selected by the agriculture teacher with the principal's approval.

Funds to finance the scholarship are raised by the chapter and donors. The first funds were raised by the chapter feeding out a steer and showing and selling him at a fatstock show. The scholarship was publicized widely in newspapers, radio and television; therefor, a restaurant paid a high price for the steer at the sale just to benefit the scholarship fund. Then other steers were bought, fed and sold at high prices. After the fund was well underway, the FFA Mothers Club donated $100.00 and has continued it each year since. The profits from a Coca Cola machine were added and now the fund has over $5,-000.00 in it. If the scholarship fund continues to increase, the chapter will begin giving two or three scholarships each year for four years. The recipients do not have to pay the money back after graduation as it is a regular scholarship. □

First Place, Region VI— Public Relations Idea

Idea secured from: John Shade, Vo-Ag Instructor, Imperial, Nebraska
By: Henry McDougal, Vo-Ag Instructor, Rushville, N. Y.

We are all aware of the importance of good public relations in our own communities. I believe the following idea is worthy of trial by every vo-ag teacher.

This past year, Mr. Shade conducted a public relations tour during FFA Week. He and his chapter officers visited local businesses and organizations to discuss the program of the local chapter. Each officer wore his FFA jacket, white shirt and tie. After each officer gave a brief report on some phase of their program, an open discussion was held.

Pictures taken during the tour were used in local papers and these were worth the time involved.

Mr. Shade told me that the reaction of those visited was very favorable and that the resulting stories in the local papers were also beneficial in helping to inform the people in his community of the work of the chapter.

The experience the officers gained in planning and conducting the tour was very worthwhile, without a doubt. The idea is an excellent one, and I plan to use it this year and think every vo-ag teacher should give it consideration. □

News and Views of the Profession

Johnson NVATA President

F. D. Johnson

Floyd Johnson York, South Carolina, was elected President of The National Vocational Agricultural Teachers' Association at their National Convention in Los Angeles, Califorina, December 4.

Floyd Johnson was born October was born October 10, 1916, at Saluda, North Carolina. He was reared in the rural community of Warrior Mountain, located in the mountains of North Carolina. He grew up on a 146 acre farm.

Floyd and his wife, Elizabeth, have 2 fine boys—Bob, 11 years old and Bill, 7. Floyd has served as vice-president of Region V for the past 3 years.

He attended grade and high school in Saluda, N. C., where he was graduated from high school in 1935. He was graduated from Clemson in 1939 and received a master's degree from the same institution in 1960.

Floyd began his teaching career at York and is currently in his 22nd year of teaching in that community. He has always been active in community, church, and educational organizations. He is a member of the Farm Bureau, Rotary Club, York Chamber of Commerce, and the Baptist church. Educational organizations he is affiliated with include: National Vocational Agricultural Teachers Association, American Vocational Association, National Education Association, South Carolina Education Association, York County Education Association, South Carolina Vocational Association, and the South Carolina Vocational Agricultural Teachers Association. He is past chairman of the Union Baptist Church Board of Deacons and teacher of the men's Bible class.

A complete program of vocational education in agriculture has been conducted under the direction of Mr. Johnson. This is a one-teacher department with a present enrollment of 53 all-day students, 40 young farmers, and 86 adult farmers-enrolled in systematic, organized group instruction.

Floyd is a member of the York County Professional Agricultural Workers Chapter, president of the York County Fat Stock Show and Sale Association, President of the York County Feeder Calf Sale Association, and a member of Phil. Lodge 332 A.F.M.

BOOK REVIEWS

FOREST AND SHADE TREE ENTOMOLOGY by Robert F. Anderson. John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, New York, 1960. 428 pages, illustrated.

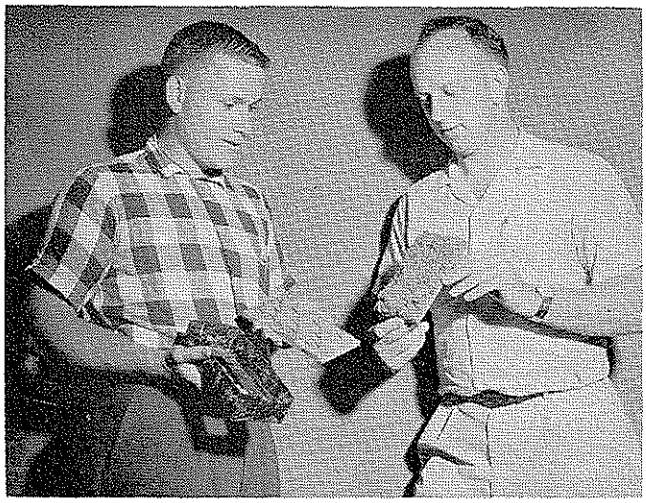
It is divided into two sections. Section One includes the basic facts of insect life—structure, physiology, classification, and control measures. Section Two is a detailed treatment of the more important forest shade tree insects. Insects are divided into defoliating, inner-bark boring, sapsucking; bud, twig, and seedling damaging; root-feeding, and cone and seed destroying. Each specie, in each of the groups, is treated individually including the nature of injury, hosts, range, appearance, life cycle, and control.

The book is supplemented by sharp photographs of insects (various stages) and injuries caused.

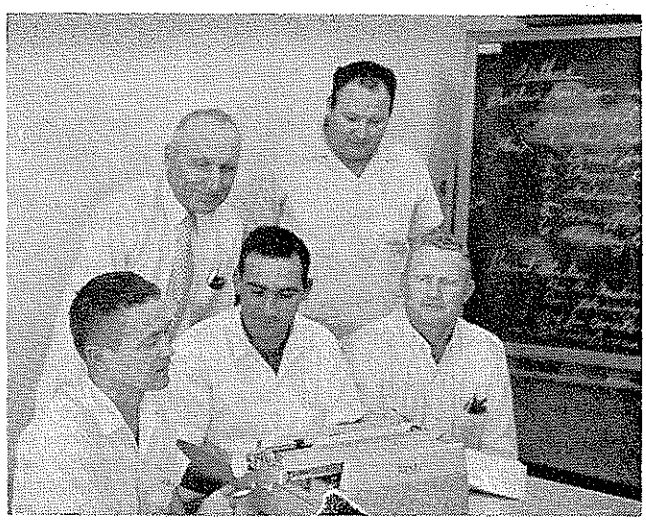
This text could be effectively used as a reference manual for classes in vocational agriculture. It would also serve as a handy reference for professional foresters.

Dr. Anderson, formerly an entomologist in the Forest Insect Division of the USDA, is Professor of Forest Entomology, School of Forestry, Duke University.

F. E. Kirkley—Clemson College

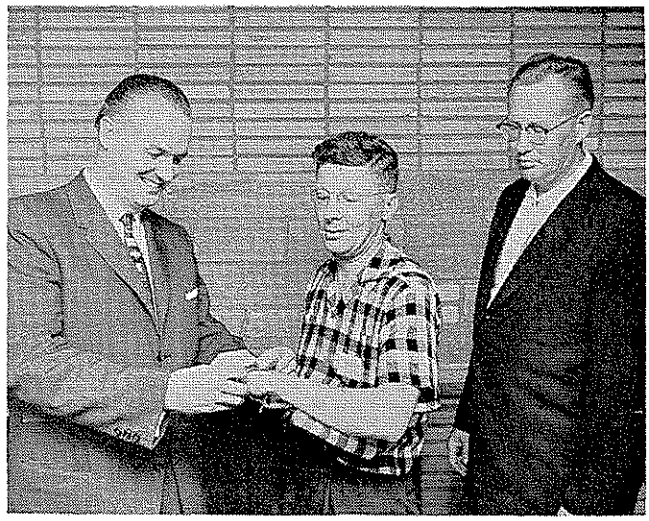


One of the more interesting teaching aids exhibited by Ohio Vocational Agriculture Teachers at their annual conference in Columbus on June 13-15 was a new type soil monolith. Charles Willer on the left holds the cutter and the plywood board which supports the monolith, on the right Vance Crouse holds the completed monolith which has been glued to the board and treated with plastic in order to preserve its natural structure and color. (Photo by R. J. Woodin)



Committee on "Better Written Communications in Vo-Ag" at work—Vo-Ag teachers conference—University of Nevada, Reno. Front—Left to right—D. Eriksmoen, Vo-Ag teacher, Yerington, Nevada; Glen Hardy, Vo-Ag teacher, Overton, Nevada; Cliff Gelmstedt, Vo-Ag teacher, Fernley, Nevada; Back Row—L. C. Schank, State Supervisor, Carson City, Nevada; Richard Reid, Vo-Ag teacher and President of Nevada Voc. Teachers Association, Mesquite, Nevada.

Past President of New York Association of Teachers of Agriculture, Donald Watson (left) congratulates Arnold Frederickson as (left to right) Gilbert Flint and Duane Schultz, other recipients of 20 Year Recognition Certificates and keys for teaching vocational agriculture, look on. (Harry Ketcham who also received the award was absent for the picture.) (Photo by W. W. Sharpe)



Presentation of 25 yr. service award by Walter McLeod, Sears-Roebuck Foundation Representative, consisting of an engraved Gold Watch to Shubel D. Owen. Mr. Owen is Ass't. State Supervisor and Teacher Trainer in North Dakota and lives in Fargo, N. Dak. (also NDVAA treas.) Donald Erickson, looking on, was presented with a gold 20 yr. service key. He has taught all his years at Rugby and at present is also Secretary of the NDVAA.

The serving line of the 1960 Nebraska Vocational Agriculture Association Ten Year Club Banquet. Shown here, James Wall, NVATA Exec. Sec. and wife Georgia, being served by Dean and Pat Lundy.

J. C. Denton, left, president of Spencer Chemical Company, Kansas City, Mo., is the 1961 Chairman of the Sponsoring Committee for the Future Farmers of America Foundation. He is pictured here with Dr. W. T. Spanton, National FFA Advisor, and the 1959 Chairman, Russell DeYoung, President of the Goodyear Tire & Rubber Company, Akron, Ohio.

Stories In Pictures