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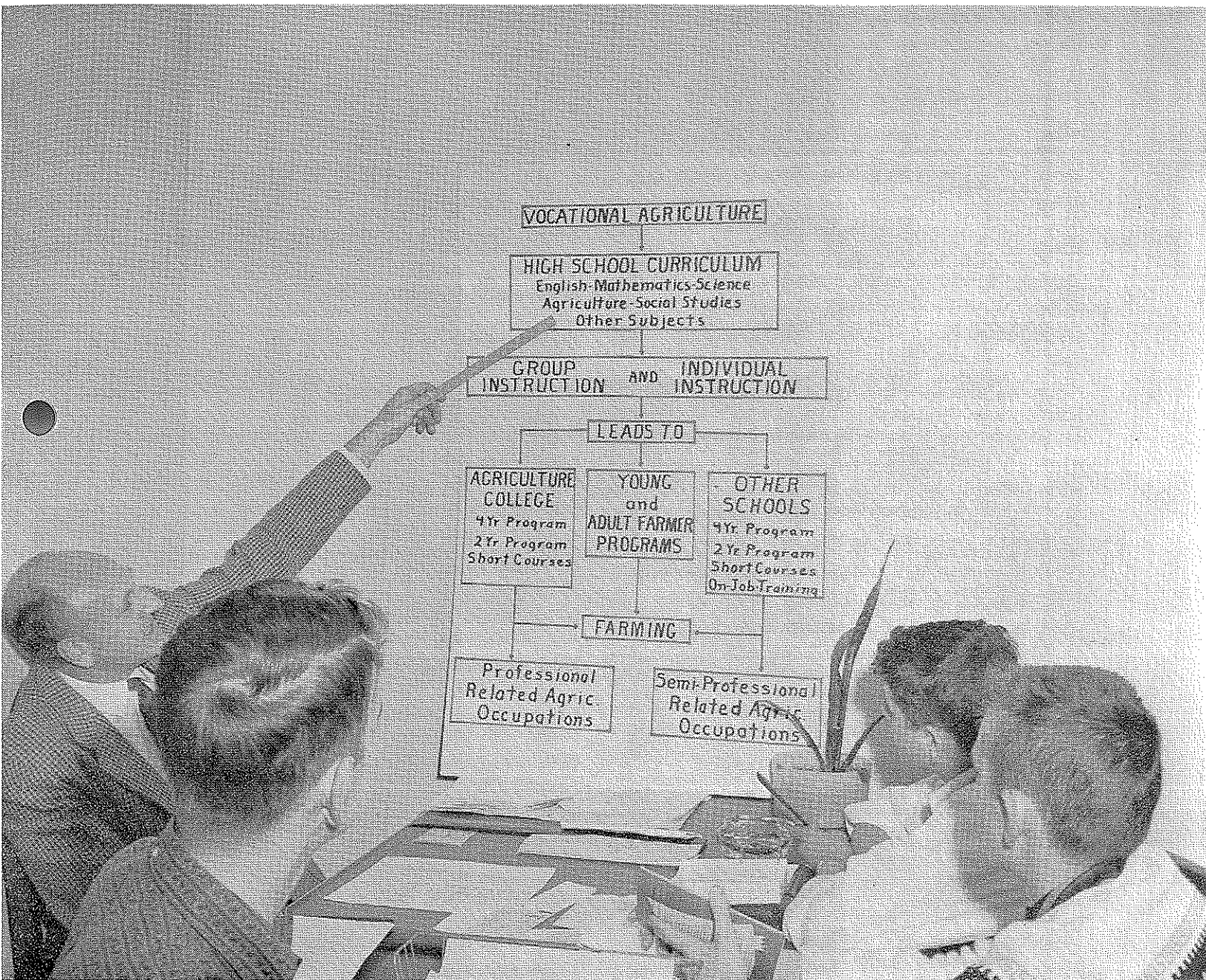
# AGRICULTURAL EDUCATION

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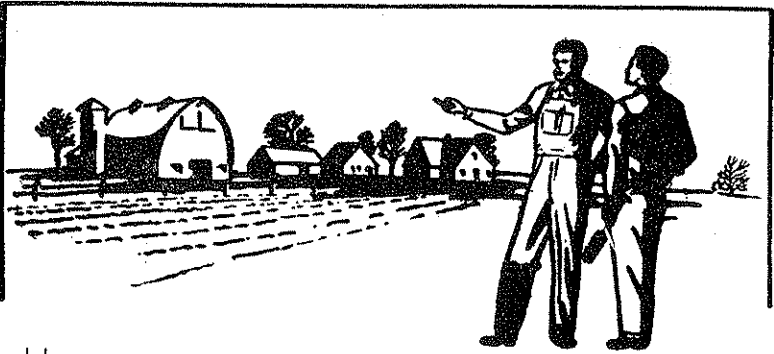
NUMBER 10



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*Featuring*— Resources for Guidance  
in the  
Vocational Agriculture Program

# The Agricultural Education Magazine



A monthly magazine for teachers of agriculture. Managed by an editorial board chosen by the Agricultural Section of the American Vocational Association and published at cost by Interstate Printers and Publishers, Danville, Illinois.

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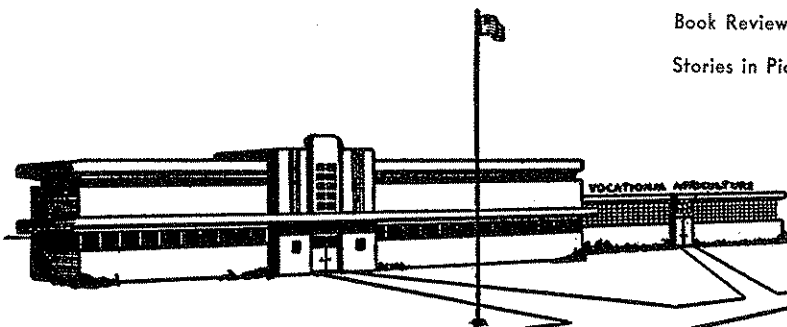
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## Resources for Occupational Guidance In Agricultural Education

CLAUD MARION, Teacher Education,  
Maryland State College

Agriculture, perhaps the oldest activity or vocation of man, has afforded him many job opportunities since the dawn of history.

Modern mechanized agriculture in the United States has affected both cities and farms in providing job opportunities for young men interested in farming or related farm occupations. Because the number of acres required for a farmer about forty years ago is not sufficient today, one farmer today is taking the place of several farmers of four decades ago. Those farmers ejected are seeking employment in related farm occupations or in industry. Again, lands that were once considered marginal have been rendered useless for crops cultivation because of new inventions and innovations. Each new invention and innovation releases many operators from farming and creates new employment opportunities in related farm occupations. These changes also have a strong tendency to increase the size of those operating units that manage to survive. We are witnessing a rapid trend towards larger production and distribution units of all types.

Acceptance of the foregoing facts suggests new resources for guidance in agricultural education. Where are the job opportunities in agricultural education? In what branches of agriculture are these opportunities found? What type of training is needed? What training is provided for these jobs? These and many questions like them are being asked daily by boys in vocational agriculture. Such questions suggest a need for better guidance. Occupational guidance is perhaps one of the most neglected media for promoting vocational agriculture and for aiding boys to find employment opportunities in areas of farming and related activities. Boys should know what opportunities are available for agriculturally trained high school graduates and what branches of agriculture require training above the high school level. It would appear that there is a real opportunity for teachers of vocational agriculture to provide programs necessary to give boys the foundation training needed for future preparation for employment in any of the employment areas. This can and should be done without violating the original purpose of training present and prospective farmers. The training should be in addition to rather than substitution.

Since the trend is toward less employment in farm-

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## From the Editor's Desk . . . Capsuled Wisdom . . .

"It's his own fault. *I told* him what would happen!" . . . "Yes, he asked me about that too. *I said* that he'd be better off if he stuck with what he was doing." . . . "That boy is all right. He's doing just what *I told* him to do."

The examples of "capsuled wisdom" are infinite, but in one respect they are all identical. Each contains, somewhere in it, an "I told," an "I said," or an "I warned." Perhaps the advice given in an "I told" manner could be defended from the standpoint of its being a sound decision; there is no hiding, however, the fact that the person who gives advice in this manner does not have an adequate understanding of human nature and surely has never understood the old saying that, "You can lead a horse to water but you can't make it drink." The use of "capsuled wisdom" also raises the rather interesting question of whether those who give it are also willing to assume responsibility for not only the successes, but also the failures, of those who follow the advice.

Paying lip service to the concept that the individual must make his own decisions does little good. We must also help the individual make his own decisions. When helping a person with his problem, our function as a teacher-counselor is to give only the help and guidance necessary to keep the person progressing toward a sound solution. We may point out some aspects of the problems which have been overlooked, some items of information needed, some sources of information not yet used, or some alternative solutions which should be explored. We may also help the individual by listening carefully as he talks his way through his problem and the progress he has made in solving it. Some persons need more help in one or all of these respects than others. But proper help and guidance has not been given until the individual, as a result of his own efforts, is able to say, "I believe this is the best possible solution for me." The same kind of help is needed as the person tries to implement his decision.

We can tell whether the help we are providing is sound only by listening as the *individual explains to us* what he plans to do.

The "I" in "capsuled wisdom" must come—not from the helper—but from the helped. □

Positive evidence that—

# Students of Vocational Agriculture Succeed in College

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



Ralph E. Bender

TEACHERS of vocational agriculture and others interested in counselling with prospective college students will be interested to learn that boys who have high school training in vocational agriculture do as well or better in the College of Agriculture than those who did not have such preparation. This was the conclusion of Clarence Cunningham<sup>1</sup> in a study completed recently.

Students with four years of English are less likely to be required to do college remedial English and they make higher grades in English than those with only three years of such preparation. Likewise, each additional year of high school mathematics decreases the probability of needing remedial mathematics for college entrance and increases the cumulative point-hour ratio.

High school rank appears to be quite significant in relation to the classification of college students four years after enrollment. Those in the upper one-third of their high school class are more likely to graduate from college and they will make higher grades. Size of high school, however, has little if any effect upon achievement in college. Students with farm experience are more likely to graduate from the College of Agriculture than those without farm experience.

## The Study

This Master's thesis study included 429 male students who enrolled in the College of Agriculture at The Ohio State University in the Autumn Quarter, 1953. The records of these students were studied for the purpose of identifying the relationship of pre-college experiences, such as high school training, farm experience, and entrance test qualifications to scholastic achievement in college. It was assumed that such information would be valuable for use in guiding the high school students in college preparation.

<sup>1</sup>Clarence Cunningham, *Relationships of Selected Pre-College Experiences to Scholastic Achievement in the College of Agriculture at The Ohio State University*. Master's Thesis, 1958, Library, The Ohio State University.

## What the College Freshmen Were Like

Approximately one-half of the students were farm-reared and nearly one-third had little or no farm experience. Forty per cent of those college students were in the top one-third of their high school class, compared to 49 per cent for the entire freshman class at the University.

Forty per cent of the class had one to four years of vocational agriculture in high school. Two-thirds of the students had four years of English, 80 per cent had chemistry or physics and 90 per cent had some mathematics. Thirty-five per cent of the students had as many as three or four years of mathematics.

There was some evidence that this class of students entering the College of Agriculture was less qualified scholastically at entrance than the entire University class. Two-thirds were in the lower 50 percentile of the Ohio State Psychological Examination, one-third were placed in a remedial English class and less than one-fourth were permitted to attempt college algebra without a remedial mathematics course. Can it be that high school counsellors are advising many of the capable students away from the College of Agriculture?

## University Status Four Years After Entrance

The 429 students (freshmen in 1953) were classified as of June, 1957, as follows:

Graduated . . . . .	23%
Did not return <sup>2</sup> . . . . .	26%
In school—College of Agriculture . . . . .	14%
Dismissed . . . . .	12%
Withdrew . . . . .	9%
In Veterinary College . . . . .	6%
Other O.S.U. transfer . . . . .	10%

## Achievement of the Graduates

The average point-hour ratio of the graduates was fairly constant throughout the four years of training—at the end of their first quarter in school it was 2.63<sup>3</sup> and upon graduation it was

2.68. Their point-hour ratio by selected subject matter areas was as follows:

Technical agriculture . . . . .	2.97
Botany . . . . .	2.97
Zoology . . . . .	2.65
Chemistry . . . . .	2.42
Mathematics . . . . .	2.20
English . . . . .	2.06

The graduates were distributed fairly well from the lowest to the highest score possible on the O.S.P.E. with approximately 55 per cent in the lower 50 percentile. Of the "dismissed" group, 85 per cent were in the lower 50 percentile on this test.

## Vocational Agriculture—Help or Hindrance?

Of the students who graduated, the 39 who had vocational agriculture accumulated a point-hour ratio of 2.78 compared to the 2.61 for the 59 students who had not received this training in high school.

The students with vocational agriculture had slightly higher grades in technical agriculture, botany, mathematics and chemistry but lower grades in English and zoology.

Very little difference was noted between the two groups concerning their university status or classification. Twenty-three per cent of each group graduated and 15 per cent of each group remained in school. Twelve per cent of the students with vocational agriculture were dismissed compared to 13 per cent of the other group. More of the vocational agriculture group did not return; however, fewer transferred to other colleges.

## Effect of Additional High School Math

Each additional year of high school mathematics was associated with the need for less remedial mathematics at college entrance. Seventy-one per cent of the students with no high school mathematics were required to do remedial work compared to only two per cent of those with four years of high school mathematics.

The average point-hour ratio in mathematics increased with each additional year of mathematics in high school. Those students having only one year of math achieved a cumula-

<sup>2</sup>More than 70% of this group dropped out at the end of one of the first three quarters in school.

<sup>3</sup>A — 4, B — 3, C — 2, D — 1.

# Showing the Way

—Guidance before entering and while in vocational agriculture, and guidance as students approach graduation

CARMON PARKS, Vo-Ag Instructor, Hazel, Kentucky

To guide means to show the way. To guide in a democratic manner, information is needed. Guidance implies that the one showing the way is familiar with the way; it connotes his continuous presence or direction along the way.

Good guidance is essential to a sound program in vocational agriculture; it makes use of the resources available and requires thorough planning, based on facts.

## Guidance of Prospective Students

The teacher of agriculture is in a unique position to secure the necessary facts for the proper guidance of his students because of his close contact with the students and their parents and his knowledge of their home-farm situations. Guidance in vocational agriculture in my school begins before a student enrolls his first year in agriculture. It begins on the first visit to the home of a prospective student. This first visit is made during the summer prior to the starting of school in the fall. A general survey of the home farm is made while on a visit to the prospective student. A study of the facts, along with talking with the boy and his parents, enables me to analyze the situation. This analysis helps me to decide whether or not the boy should take vocational agriculture.

If the prospective student is interested in agriculture and has adequate facilities or can arrange for adequate

facilities for a n acceptable farming program, then I guide him to take vocational agriculture. Adequate facilities for a farming program should be a primary consideration in guiding boys to take or not to take vocational agriculture. This fact is too often overlooked in guidance. If the student is not interested or does not have facilities for a satisfactory farming program, then I guide him to take courses other than vocational agriculture. Note the two significant points—(1) interested in agriculture and (2) has, or can arrange for, adequate facilities for a farming program. These two things make for a desirable training situation. The absence of either of them does not make for a desirable training situation. Vocational agriculture is a training program—training in a farming vocation.

## Guidance While in Vocational Agriculture

Supervisory visits to the home farms of my students provide much information for guidance. Through on-farm supervision I am able to observe a student's interest and performance in carrying out his farming program. At the same time I observe his attitudes and abilities in farming and

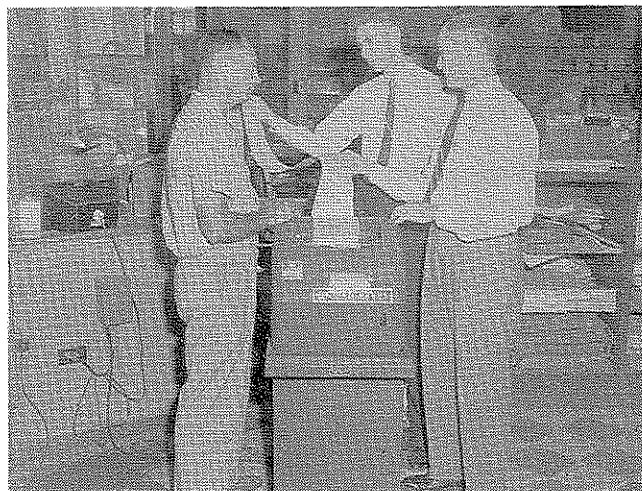
his progress in developing a good farming program.

As I work with students in the classroom, I am able to judge their abilities to think clearly, to solve problems, to plan carefully, to keep records, to summarize and evaluate their results, to lead a group discussion, to speak effectively, and to do many other things. All this is valuable for guidance while in agriculture.

## Guidance as Graduation Approaches

Not all students who have good farming programs while in high school will or should end up as farmers. As a boy approaches graduation from high school, my responsibilities for guidance continue. There are those who should continue on the farm and become established in farming. There are others whose opportunities, interests, and abilities lie elsewhere. Much of the guidance at this time needs to be of a personal and individual nature. In my community, as in most others, there are opportunities in

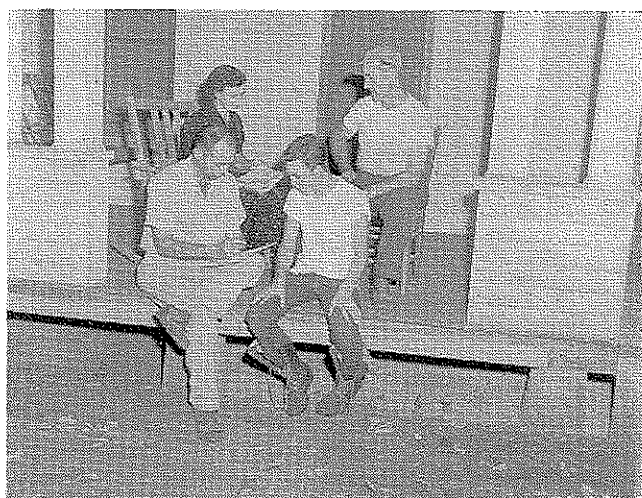
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This young man was an outstanding FFA reporter and after graduation from high school was employed by the local daily newspaper.



A graduate who chooses to farm expands his operation by renting additional land nearby. Here the young farmer is signing a contract with his landlord.



The boy, the parents, and the teacher all working together are sizing up the situation and will decide as a group whether or not the boy should take vocational agriculture.

## Resources for - - -

(Continued from page 219)

ing and ranching and greater employment in related farm occupations, it would appear logical for teachers of vocational agriculture to give serious consideration to these job opportunities and provide some training either of general or of vocational nature for related farm occupations.

To refuse to give new meaning and redirection to the original vocational act and to say that it is as meaningful today as it was forty years ago is somewhat incongruous with the dynamic changes that agriculture has made during the same period. Should our training programs ignore completely the many job opportunities in agriculture other than farming and ranching? Should teachers of vocational agriculture be penalized or given credit for providing training in agriculture occupations other than farming and ranching? Are the present programs in vocational agriculture adequate for the job at hand? And when we consider here, just past mid-century, the rate at which agriculture is changing, we can readily see that the present programs will become increasingly inadequate in the decades ahead. Clearly, we have to look ahead and plan for the future.

There seems to be little agreement as to what the answers should be. Perhaps a study made by the Association of Land-Grant Colleges and Universities might indicate direction.

According to a booklet published by the Association of Land-Grant Colleges and Universities,<sup>1</sup> there is a need for about 15,000 graduates each year but the colleges and universities are training only about 8,500 annually. The Association points out further that about one thousand workers are needed in agricultural research, three thousand in agricultural industry, three thousand in agricultural education, five hundred in agricultural communications, one thousand in agricultural conservation, fifteen hundred in agricultural services, and about two thousand in farming and ranching.

The roots of America are in the soil, but few realize the great size of the industry of agriculture. About twenty-five million people work in agriculture and related pursuits. Of this twenty-five million, about ten million are on farms and ranches. The remaining fifteen million are employed in producing goods and providing services

<sup>1</sup>*Careers Ahead*, Association of Land-Grant Colleges and Universities, National Project in Agricultural Communications, Washington, D.C.

directly to farmers and in processing and distributing food and other agricultural products.

Teachers of agriculture are directly engaged in training boys to fill the vacancies in farming and ranching, and at the same time they are giving boys foundation training needed for the many related farm occupations.

The teacher-counselor should keep constantly informed about the many job opportunities in agriculture and should seek to effect integration of farming and related farm occupations in his training program.

There is no doubt that the momentous changes in agriculture during the decades of expanding production and large farm businesses have intruded upon and modified our original emphases. Because such events have changed the outlook of many, a youth who aspires for a career in agriculture must be seriously considered by the teacher-counselor. □

## Students of - - -

(Continued from page 220)

tive point-hour ratio of 1.87 as compared to 2.31 for those having four years of mathematics.

Forty-nine per cent of the students with the vocational agriculture training had two or more years of math compared to 73 per cent for those not having vocational agriculture. Of the vocational agriculture group, 37 per cent needed to take remedial work as compared to 26 per cent for the other group. The vocational agriculture group, however, made higher grades in their college math.

### Effect of the Fourth Year of English

Of the students completing four years of English, 29 per cent found it necessary to take remedial English in college, as contrasted to 42 per cent of those having only three years of English. As might be expected, those students having more high school English made higher grades in college English.

Twenty-seven per cent of the students with four years of English graduated and 10 per cent were dismissed compared to 21 and 19 per cent respectively for those with three years.

Of those students having vocational agriculture, 51 per cent completed four years of English and 38 per cent took remedial English as compared to 62 per cent and 29 per cent respectively for the students without high school training in vocational agriculture.

## Effect of Chemistry and Physics in High School

The average cumulative point-hour ratio in college chemistry increased with each additional year of chemistry or physics in high school. Those students with no high school chemistry or physics had a 1.83 mean cumulative point-hour ratio in chemistry and those with either or both in high school increased this to 1.92 and 2.18, respectively.

Seventy per cent of the vocational agriculture group had chemistry and/or physics, compared to 72 per cent for the non-vocational agriculture students.

### Significance of High School Rank

High school rank appeared to be very significant when related to the status of students four years after entering college. More than one-third of the students in the top one-third of their high school class graduated and only three per cent were dismissed. Of the students in the lower one-third of their high school class, nine per cent graduated and 23 per cent were dismissed.

Almost one-half of the students with vocational agriculture were in the top one-third of their high school class compared with only a third of the other group. This appears to be just opposite to the findings with reference to O.S.P.E. and placement tests in English and mathematics.

### Relative Achievement of Farm and Non-Farm Students

The students who had farm experience were not as well prepared for college based upon the placement tests in mathematics and English; however, they were no less able for they did as well on the O.S.P.E. as the non-farm students. Of the students born and reared on the farm, 51 per cent were in the top one-third of their high school class as compared to 38 per cent for those without farm experience.

Twenty-six per cent of the farm experienced students graduated compared with 22 per cent of the other group. Only six per cent of the farm boys transferred out of the College of Agriculture; 20 per cent of the non-farm students transferred.

Franklin, Cuyahoga, and Hamilton counties, each with large urban centers, were the home counties of 22

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# Supervised Farming Programs in Relation to Off-the-Farm Occupations in Agriculture

HAROLD M. BYRAM, Teacher Education, Michigan State University



Harold M. Byram

INSTRUCTION in vocational agriculture should be based on the farming programs of the students enrolled. This is a principle widely accepted by teachers, and one which they should constantly try to

apply as they plan and carry out instruction in agriculture.

The effective application of this principle is not easy. This is due, in part, to the fact that each student has a different background of experience in farming. But what is perhaps just as important is that one finds in the typical high-school class quite a diversity of interests, as well as of vocational goals of students.

The teacher who makes an inventory of these interests and vocational goals becomes increasingly aware of the facts that (1) some students would like to consider entering some off-the-farm occupation in agriculture, and (2) many who have such interests also have the kind of experience which would help them to enter and succeed in such occupations. Those who have followed up former students have learned that some have entered work in which they do or could capitalize on such experience, together with the right kind of training in agriculture and specific training for competencies required in the occupation.

These considerations, then, help to emphasize the important role of the teacher of agriculture in the guidance of students. As teachers fill this role they should recognize the needs of students for exploratory experiences on the farm. By exploratory experiences we mean those that consist of work or other activity that is similar to that being done in an occupation, and which helps one to determine whether one might like the work in this occupation and/or whether one has some aptitude for learning and accomplishing the tasks involved. Let us turn to farming programs to examine possible relation to both instruction and guidance.

Could supervised farming programs as usually conceived serve a useful purpose in planning instruction which would meet the needs of youth who want to learn more about opportunities in agriculture other than farming? Could they also help students to explore their interests and aptitudes in this regard? Finally, could students be given the kind of instruction in relation to these farming programs that might later be of value to them in their chosen fields of work? These questions become real problems to be solved as we take a closer look at them.

The criteria for selection of farming programs as they have been developed through the years are now pretty well accepted. They are based on the premise that the student is going into farming. The productive investment, the enterprises to be represented, the progressive growth of ownership toward partnership, and projects aimed at improvement of the farm or the farming business, all contribute to entrance into and progress in farming. In the face of this the teacher is confronted with these questions: Do these criteria have relevance to programs for youth looking toward off-the-farm occupations in agriculture? Is something entirely different called for? Is there such a thing as supervised farming for these occupations?

## On-the-Job Training No Substitute for Farming Programs

One answer that has been suggested by some teachers is that the program itself should be off the farm. This may occur to them because for so long we have thought of farming programs only or largely in terms of preparing for farm work on the farm. It probably is also prompted by consideration of the typical characteristics of cooperative occupational training programs in industrial occupations, distributive occupations, or office occupations. The dominant element of these "co-op" programs is the on-the-job training given by the employer to the student who works part time for him while enrolled in school, and under the supervision of a qualified coordinator. The advocates

of this idea note that some of these occupations involve the use of agricultural information or experience. Their thinking is that boys who work at jobs in these fields are, in effect, engaging in supervised practice—as indeed they are. Why not call this kind of experience supervised farming or at least supervised practice in vocational agriculture? For example, they would say, if boys work part time for a farm implement sales and service business or for a farmers' elevator or seed and fertilizer distributor, let us call these experiences supervised practice.

Now, it is not our purpose here to disparage the on-the-job training as a method of vocational education for competency in the previously mentioned and other occupational fields. The effectiveness of this method of education has been amply demonstrated. More of it is needed. But on-the-job experience and training from an employer should not be considered as a substitute for farming programs on the farm that should be sought for students of vocational agriculture, particularly at the high-school level.

In the first place, the labor laws of most states are such that students could not be employed in on-the-job training before they are at least juniors or seniors in high school, and in some not until they have graduated. Partly for this reason, but also because such programs need not extend for more than one or two years, the cooperative occupational training programs increasingly are available only to seniors and sometimes to juniors, and are moving into the post-high-school period. This means that all or most of the on-the-job training would occur after or near the end of the high-school period and could not, therefore, be used as a basis for instruction in agriculture. Cooperative training is appropriate only for certain kinds of occupations. A careful look at the long list of occupations or professions for which farm experience and/or education in agriculture are desirable or necessary will reveal that many of them, as well, require post-high-school or collegiate education of a rather systematic or formal type.

(Continued on page 224)

## Supervised Farming - - -

(Continued from page 223)

In the second place, rural communities in which farm youth attend high school usually are not large enough to support very many businesses or industries serving farmers. Hence, the training stations would be limited. They are more likely to be found in communities in which are located a community college, a four-year college, or an area vocational school or technical institute.

A third factor to be considered is that cooperative occupational training, to be effective, should be supervised by a qualified coordinator. Since, in addition to students who might be working in a training station and learning an occupation in an agricultural business or industry there also will be other students working in jobs totally unrelated to agriculture, the coordinator of such work would not necessarily be a teacher of agriculture. He would need to be a person with successful experience in a business or industrial occupation represented in the program.

Another fact must be considered in analyzing on-the-job vocational training. This is that exploration for purposes of deciding on an occupation to enter is limited usually to one occupation, and often to one job in the occupation. The employer ordinarily cannot afford to have the trainee shifting from one assignment to another to the extent that the trainee might like in order to explore his interests in a wide variety of jobs and occupations. A broad, non-vocational work-experience program might be a better solution to the exploratory aim.

Finally, it should be recognized that on-the-job experience in business or industry could not form the basis of instruction in the classroom in the same way that typical farming programs do. Much of the related work which the coordinator would need to teach in such areas as selling, worker-supervisory relations, industrial safety, and labor relations are not a part of the subject-matter training of most teachers of agriculture. Furthermore, much of the remaining related instruction called for by the nature of the job must be provided on an individual basis and would not necessarily be of an agricultural nature.

We have previously pointed out that the teacher of agriculture has a responsibility in the guidance of farm youth and for aiding in their prepar-

ation for work in agricultural occupations. So let us return to supervised farming on the farm to find the kind of activities that are appropriate at the high-school level for prospective workers in occupations where farming achievement is either desirable or necessary. To do this let us consider the relation of vocational agriculture to off-the-farm occupations. This relation must, of course, stem from the nature of these occupations.

The definition of an off-the-farm occupation in agriculture is implicit in the opening statements of this article. To be more explicit at this point we should say that it is an occupation in which the worker either needs to have, or that he is more effective in his work if he possesses experience in farming and/or a knowledge of the why and the how of farming operations. The studies by Hoover<sup>1</sup> of Pennsylvania, Kennedy<sup>2</sup> of Michigan, and Sutherland and Thompson<sup>3</sup> of California and by others have helped to amplify this definition. As a result we know that such occupations exist and can be identified, that some of them are represented by a considerable number of workers, that they vary in the extent to which experience in farming and/or training in agriculture is important to success in the occupation, and that these characteristics can be measured and analyzed.

As yet, the question of which occupations call for farming abilities or knowledge that could or should be acquired through actual farming experience, which through systematic instruction, and which through both farm experience and training has not been fully answered. We do know, however, that students learn what they practice, that learning needs to be integrated through true-to-life situations, and that students learn through experience. These principles should be applied in a search for the answer. At the same time, it should be recognized that instruction in agriculture at the high-school level could be basic to entry into and success in

these off-the-farm occupations, but could not be specific in terms of preparation for job skills. Farming experience could be tied in with basic instruction in agriculture.

### Criteria for Selecting Farming Activities

If these ideas are acceptable we are ready to suggest criteria for the selection of supervised farming activities appropriate for students who are interested in or who are considering off-the-farm occupations in agriculture. The first, but not necessarily the most important of these is that the project or activity provides new or additional experience that will have exploratory values for the student. This might need to be supplementary to experiences previously had in farming at home or, in the case of non-farm students, be almost entirely new. The second criterion is that the activity or project provides experience in those enterprises that are important in the occupation toward which the student is aiming or which he is considering. It is presumed that this experience would provide for learning situations that could bring about understandings of importance in the occupation. It is especially important here to recognize that formal or organized training programs for occupations in agriculture off the farm cannot ordinarily provide the on-farm background needed. Some examples may help to make this point clear. The college of agriculture gives instruction in swine production to prospective teachers of agriculture but assumes that the student must have acquired actual experience, accompanied by at least minimum necessary instruction in the farm jobs of tending, feeding, breeding, and caring for swine. Likewise, the employer of a worker in a farmers' elevator or feed company is not in a position to insure, through providing either training or experience, that his employees will have had actual experience in feeding all types of livestock, even though he might like for them to have it. If experiences like these were to be provided in a student's individual farming program they could be made very meaningful through instruction on problems which would arise. The third criterion is that the project or other activity provides practice to develop those farming abilities that will help a person to succeed in some off-farm occupation in agriculture. The fourth

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<sup>1</sup>Norman K. Hoover, "Factors Associated with Establishment in Related Agricultural Occupations and Their Relationship to the High School Curriculum in Vocational Agriculture" (dissertation, Ed. D., Department of Agricultural Education, The Graduate School, The Pennsylvania State University, University Park, Pennsylvania, 1957), pp. 127.

<sup>2</sup>William Henry Kennedy, "A Clarification of Relationships Between Farming and Certain Other Agricultural Occupations with Implications for Guidance and Curriculum Development" (Thesis for the Degree of Ed. D., Michigan State University, 1958) pp. 510.

<sup>3</sup>S. S. Sutherland and O. E. Thompson, *The Training Required by Workers in Agricultural Business and Industry in California* (report of a study; Sacramento, California: California State Department of Education, 1957) pp. 40.



## Supervised Farming - - -

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criterion, which assumes that one or more of the other criteria are met, is that the project or activity is related to the course of study for the class as a whole. Some of the criteria for selection of programs for students preparing to farm might also be considered in this list. For example, the financial return might be a determining factor for a student with an occupational goal requiring education beyond the high school. We are not suggesting that all these criteria could be met for every program. Rather, at least one and preferably more should be met, depending on the occupation in view, the nature of the home and farm situation, and probably other factors.

### Farming Programs for Non-Farm Agricultural Occupations

We turn now to the consideration of some typical occupational goals and to the kind of individual farming programs that might be appropriate for the students who have these goals. The occupations or occupational fields chosen to be presented here are those concerning which some information is known as to the training and farm experience desired in the worker. The broad occupational field of agricultural education could be thought of as including the teaching of agriculture at the secondary and collegiate levels, agricultural extension work, work of soil conservation, and other occupations of an educational nature in agriculture. A worker in these occupations needs farm experience of the broadest possible kind. The student considering one of these occupations might be living on a farm where general farming is practiced, but on which an enterprise such as sheep is not represented. If he becomes a teacher of agriculture there probably would be occasions when he would need experience with sheep. One of these would be, for example, when a boy in the class that he will be teaching would want help in planning his sheep project and in carrying on some operations in the sheep enterprise. This boy might be the only one in a class of twenty with a sheep enterprise. But he would want just as good help from a teacher on those operations as on those of the corn or small grain enterprises, or any other enterprise common in the community. Those who are respon-

sible for the education of teachers of agriculture, and of others in the broad field of agricultural education, are constantly confronted by the inadequate farming experience of many of those enrolled in the preparatory programs. If these young men's interest in teaching could be identified at the high-school level, gaps in farm experience could be remedied through production projects and other supervised practice in enterprises hitherto lacking on their home farms. This would be particularly important for boys on farms where part-time farming is practiced. Studies show that farmers who work off the farm a great deal do not ordinarily have many enterprises in livestock. Often they have none. The youth who aspires to become a teacher of agriculture in a state where dairy farming is important should have a farming program that includes this enterprise. An improvement project on another farm or placement for farm experience on a good dairy farm would add invaluable experience, and would provide the basis for much-needed instruction on the farm practices involved. Another type of project that might be desirable to include could be an improvement project in soils in which the student could apply important soil-building and conservation practices. It would be well if he could prepare for later instructional responsibilities in farm management by actually developing a father-son agreement for farm operation.

Let us consider another case, that of a student on a farm where there are limited facilities for a farming program, who is interested in farm mechanics, and who has an occupational goal in the area of farm machinery sales and/or service. He should be brought to realize that his success in this occupational field will depend to some extent on his knowledge of farm mechanical operations. In line with this student's occupational goal, he might be placed for farm experience on a large farm where there is extensive use of farm machinery. We would expect that this student would receive instruction on the skills involved in operating and maintaining the farm machinery and equipment. He might, then, be ready for a cooperative occupational training program in the farm implement business as a senior or a post-high-school student in a community college or area vocational school program.

Another example might be taken

from the field of forestry. Not all students who think they might be interested in one or more occupations in this broad field have farm woodlots at home or live on a farm. A farming program for such students might well include some projects and other activities in forestry. It is possible to provide exploratory experiences through group projects such as managing a school forest or FFA forest. The purchase and management of a small woodlot would be another possibility. A Christmas tree project would be another, although the number of years that such a project must run before the student would experience all the operations involved does present a problem.

Let us take a case that would not be typical, but which illustrates the application of the criteria for selection. This is of a student who would like to look into the occupational possibilities of producing, selling, and planting of ornamentals for home beautification. Whether the student lives on a large farm or on one with few facilities for a farming program, he might develop a project in home beautification and gain valuable experience and instruction from it. In some communities the student might be placed for farm experience of an exploratory nature with a producer of ornamentals.

A student who is somewhat interested in the career of farm veterinarian certainly should determine whether he likes to work with livestock. More than this, it is to be desired that he should have on-the-farm experience with a wide variety of jobs in production of livestock. His farming program could, of course, include crops and soils projects and practices. It would appear, however, that this student should be encouraged to have as wide a variety of livestock projects as his home farm situation will permit, and that he become well aware of the farmers' problems through experiencing them in his farming program and solving some of them through instruction in vocational agriculture.

The suggestion of many more examples of farming programs for students who might be interested in off-the-farm occupations in agriculture is limited by space and by an incomplete knowledge of the amount and kind of farm experience and/or training in agriculture needed for success in these occupations. A great deal of information about these needs must

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Suggested solutions to - - -

# Problems Related to Establishment in Farming

WAYNE W. WOLFE, Vo-Ag Instructor, Hermann, Missouri



Wayne W. Wolfe

WHEN discussing the problems of young men becoming established in farming, it becomes necessary to generalize, but in actual practice this cannot be done. Each individual will have different problems because of different areas of the state and because of different individual backgrounds. However, it is possible to generalize to some degree if it is kept in mind that each individual will vary somewhat from the general pattern.

An analysis of the present farming situation in regard to the opportunity for a young man to become established in farming should be considered. Estimates of replacement needs for farmers in Missouri run from 6000 to 8000 per year. The number of vocational agriculture graduates per year is approximately 2000, with 30% to 45% of these graduates entering farming. This means we have 600 to 900 vocational agriculture graduates entering farming compared to the six to eight thousand replacements needed. This immediately leads us to ask two questions. Why do we not have more vocational agriculture graduates entering farming and what is our responsibility to the 5400 to 7100 who are not graduates of vocational agriculture? A study of problems encountered by young men trying to become farmers will help us answer these questions.

## Major Problems

Financial problems are indeed the most serious problem encountered by those young men. According to the Missouri census report of 1954, the average farm was 170 acres with the value of land and buildings \$13,500. Assuming these farms would need \$5000 in investment for machinery and livestock, and \$1500 for operating expenses, this would mean an initial investment of \$20,000 for a young man to start farming in Missouri. This

figure may be entirely too low; in fact, most authorities estimate the capital needed for a successful farm business at \$35,000 and upward.

A second factor to be considered by young men becoming established in farming is the securing of land. Acreage and quality of land enter the picture because of the increasing amount of acres that one man may farm; good land for farming becomes a problem to locate. Good land which does become available usually is not available to these young men.

Experience and education enter the picture as a problem because young men who have to make so large an investment in a farm business usually do not consider they have enough experience or education to protect this investment, and they also find it hard to secure financial backing because of lack of experience and education. With experience and education, many of the specific problems encountered by these young men are solved.

Opportunity to become a farmer also enters the picture as many young men find it much easier to locate a job away from the farm than to meet all the problems connected with farming.

Perhaps the most important problem is the fact that many young men do not have the desire to become farmers. They feel there is more opportunity in some vocation other than farming.

These five general problems will largely include the more common specific problems encountered by young men who are considering farming.

## Best Single Solution

Partnership agreements either with the father or someone else would seem to be the best single answer. This will aid in solving most of the problems encountered by young men. Financial backing becomes easier; location of land is easier because the young man usually will take over the entire operation after a few years; experience of older farmers in the operation will give greater stability; and greater opportunity can be seen which leads to

a desire on the part of the young man to become a farmer.

A study by Ahalt and Murray in Maryland found that 45% of the young men who have become established in farming did so through partnership agreements. In the same study mentioned above it was found that a large number of young men became cash or share tenants before becoming farm owners. This study also found that a large percentage of young men who were established in farming had participated in non-farm work before becoming established in farming. Of course, military service is usually an unavoidable non-farm occupation; however, military service does not account entirely for the large per cent who did participate in non-farm occupations before they started to farm. This study found a general order of steps that young men followed in becoming established in farming. The first step was one of working at home with or without pay or working away from home in non-farming occupations. The second step was one of share or cash tenant or a partnership agreement. The third step was that of ownership.

## Other Possible Solutions

As teachers of vocational agriculture, we would like more of our graduates to enter farming and also should try to determine the ways we can be of service to those young men who are entering farming and have not had vocational agriculture training. The following suggestions may be of help in solving these problems:

1. By some means overcome the attitude that there is no longer an opportunity in farming and create a desire of young men to become farmers.

2. Publicize the opportunities in farming. Do not minimize the difficulties but point out the good points as well. Each industry will try to create favorable opinions of their occupations; however, in farming, because there are no organized efforts to point out the good points, the most discussed aspects are the gripes and troubles.

3. Place before the students the opportunities in farming, not only in attitudes but in actual farming opportunities. A department could set up a file of farms and farming opportunities in the community.

4. Encourage partnership agreements in the supervised farming programs in high school and encourage

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A teacher's viewpoint on - - -

# The Role of the Vo-Ag Teacher in Occupational Guidance

ROBERT D. HERR, Vo-Ag Instructor, Boyertown, Pa.



Robt. D. Herr

IN the fifty years that vocational agriculture has been a part of our system of public education, there have been vast changes in our way of life. Early in the twentieth century many people lived in the country and depended directly on farming for a livelihood. Forty years ago it was necessary that fifty percent of the population of the United States be engaged directly in producing food and fiber for the rest of the people. Today it requires only twelve percent of the population to do the same thing.

There have been many other changes. More people have moved from the farm to metropolitan or suburban areas. Farms have become fewer in number and larger in size. With these and other changes there can be little wonder that we must revise our standards in vocational agriculture. A reality that we must face up to is that we are no longer preparing every boy who comes into vocational agriculture to become a farmer. It is neither feasible nor practical that we attempt to do this.

With these changes come a new responsibility for the conscientious teacher of vocational agriculture. He must assume the role of an occupational guidance counselor. He can no longer assume that he is training every boy to earn his living from a farm. At the present time, over forty percent of the people in the United States are engaged in some industry allied to agriculture. Think of the tremendous possibilities now open to a boy with an interest in agriculture, and think also of the responsibilities resting on those who guide him. It is a thing that cannot be lightly dismissed.

Perhaps the first thing the teacher of vocational agriculture must do in his role of occupational guidance counselor is to acquaint himself with the facilities of the school where he is employed. In my school there is an extensive testing program with intelligence quotients and achievement

scores for each student. The I.Q. tests are given in grades 1,3,5,7,9,11, and at any other time when inconsistencies seem to appear. Achievement tests are given every year. There are trained people who will assist the teacher in understanding this information and using it with the student.

School policy is another thing to become acquainted with. In our school there is a belief that a student should know his capacity, not in terms of a raw score, but in terms of what he can expect to accomplish. If a boy has college as his ambition but has consistently low I.Q. and achievement scores, the counselor will point this out to him and attempt to help him find something in which he can succeed. If, on the other hand, a boy has a lot of ability and does not seem to have very high goals set, the counselors will point this out also.

The teacher of vocational agriculture has other important assets he can use in his guidance. In most cases he gets to know the boy very well and meets with the boy's parents often also. He can observe the boy in many more kinds of work and play than the average guidance counselor. He gets to know the family background and is possibly more readily accepted by the boy's parents than another counselor from the school would be.

## Group Guidance Possibilities

There are many ways that the teacher can do occupational guidance work. On a group basis he can point out to his classes the various statistics that tell the present story of agriculture. The fact that 49% of the white boys who studied agriculture in 1949-1950 are now engaged in farming, and that in more recent years the percentage is even less than that will be startling information for some of the boys. The teacher can discuss with the group various opportunities in the allied fields and provide the group with a chance to meet and talk with many of these men such as various types of specialists; salesmen for feed, machinery, and other agricultural products; the county agent, and even the teacher himself. There are also many pamphlets and books available that

could be presented to the students for their use.

## Individual Counseling Most Important

More important than the group work though, will be the work that the agriculture teacher can do on an individual basis. In our school we first meet our prospective agriculture students in the ninth grade Junior FFA. This is set up as a club situation so that any boys who are interested in agriculture may attend. At this point, in only one year of operation, several boys with specific interests have been discovered. One boy wants to take veterinary medicine and had not planned to enter vocational agriculture because he felt he would not be able to go to college if he did. When he enters high school next year, he will have a program to suit his needs including vocational agriculture. And the FFA will have another boy with a great deal of potential leadership. One or two other boys will also have programs designed to include courses required for admittance to college.

On the other hand, the Junior FFA also offers the department the opportunity to weed out some of these boys who have no real interest in agriculture and are only there because their friends joined or they think it will be the easiest way to spend three years in high school. These boys can be discouraged in their attempts to enter the program since they will probably contribute little.

As the teacher moves along with the boys he can gradually sort out their abilities and desires so that when the opportunity presents itself he will be able to suggest occupational possibilities.

## Must Provide Other Information

Another responsibility of the vocational agriculture teacher in occupational guidance is to know the opportunities for special scholarships such as the Arthur S. Young Memorial Scholarship giving a boy a course in farm mechanics. Many of these things are available for the asking but too few people bother to find out about them. Many companies also offer training programs to boys

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# Are Vo-Ag Graduates Successful In Nonfarm Occupations?

RICHARD H. BITTNER, Graduate Assistant, Iowa State College



Richard H. Bittner

CAN the effectiveness of the vocational agriculture program be measured only by the number of graduates who become successfully established in farming? Are farm boys who enroll in vocational agriculture able to compete for and succeed in nonfarm occupations as well as those who elect other high school courses?

To answer these and related questions, the author conducted a study<sup>1</sup> to determine the effect of vocational agriculture, scholastic achievement, and extent of participation in activities on the occupational status of farm-reared male high school graduates engaged in nonfarm occupations. The study was conducted in cooperation with other graduate students at Iowa State College who were interested in other specific phases of the occupational adjustment problem of rural youth.

Visits were made to 40 high schools located in the eastern livestock and central cash grain farming areas of Iowa to secure the names and grade point averages of farm-reared boys who had been graduated from high school during the 12-year period from 1943 to 1954. The schools had previously been paired on the basis of location, population of town, high school enrollment, level of living index, soil type, and type of farming. The 20 pairs of schools used were drawn randomly from 45 pairings that had been made and each pair of schools consisted of a school that had offered vocational agriculture at least 11 of this 12-year period and a school which had not offered vocational agriculture during that time. After information had been recorded from school records, the investigators contacted parents, relatives, and friends of each graduate to obtain his current address and, if possible,

a brief description of his occupation.

From the schools which had offered vocational agriculture, the names of 1,328 graduates were obtained who had graduated during the period from 1943 to 1954 and who had completed three or more years of vocational agriculture. Forty-six percent were found to be farming in 1958 and 48 percent were engaged in nonfarm occupations. The remaining six percent of the graduates could not be located.

From the schools which had not offered vocational agriculture, the names of 1,328 graduates were obtained. Forty-one percent of these graduates were farming in 1958 and 56 percent were engaged in nonfarm occupations. The remaining three percent of the graduates could not be located.

Questionnaires were mailed to the graduates located and after a waiting period of approximately one month had passed, the final sample was selected. Only those who met the following qualifications were included in the sample:

1. Were employed in nonfarm occupations.
2. Were not enrolled as a college or university student.
3. Were not graduates of a four-year college or university.
4. Had received at least three years of vocational agriculture if the graduate was selected from a school which offered vocational agriculture.
5. Were living on farms at least 40 acres in size at the time of graduation.
6. Were sons of parents who received one half or more of their total income from farming.
7. Were not in active military

service. Excluded from the necessity of meeting this requirement were those who had been in service for more than five years and had stated military service as a career.

The final sample consisted of a group of 320 farm-reared male high school graduates. They were selected randomly from those who had returned completed questionnaires. Four graduates were selected from each school who had graduated during the period from 1943 to 1948 and four were selected from each school who had graduated during the period from 1949 to 1954. The final sample, therefore, consisted of 160 graduates who had studied vocational agriculture and 160 who had not studied vocational agriculture.

The completed questionnaires were coded and the data were transferred to IBM cards for statistical treatment.

## Findings

With the exception of vocational agriculture training, all graduates tended to have the same high school characteristics. There were no significant differences in the mean ranks of the graduates in their graduating classes, or in their mean participation scores in sports, music, and church activities. The graduates from vocational agriculture schools, however, had significantly higher participation scores in a group of leadership type activities which included the FFA.

The criteria used as measures of occupational status were the annual earned incomes the graduates received in 1958, the degrees of satisfaction that the graduates expressed with their occupations, and the ratings of the graduates' occupations on the North-Hatt Scale of Occupational Prestige. The mean values of these criteria for both groups are shown in Table 1. Although the vocational agriculture graduates earned an average of \$225 more than those graduates who had not studied vocational

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Table 1. Occupational status of graduates, classified by type of training, mean values.

Criterion of status	Type of high school	
	Vocational agriculture	Nonvocational agriculture
Annual earned income	\$4,645	\$4,420
Degree of satisfaction	2.25	2.33
North-Hatt rating	62.28	62.07

<sup>1</sup>Richard H. Bittner. Relation Between High School Characteristics and Status of Farm-Reared Male Graduates in Nonfarm Occupations. Unpublished M.S. Thesis. Ames, Iowa, Iowa State College Library. 1958.

## The Role of - - -

(Continued from page 227)  
with abilities along certain lines.

Probably better than any other person, the teacher of vocational agriculture can help his boys when they are faced with the problem of what they are going to do. For this reason it is the duty of every vocational agriculture teacher to face up to today and accept his new role as occupational guidance counselor. If he does his job well, the world can not help but be a better place in which to live. □

## Supervised Farming - - -

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be brought to light and made available to teachers before they can be very effective in relating farming programs to the interests of students who, although interested in farming, also might like to consider other agricultural occupations. We must not guess at the farm experience or background training in agriculture that is needed. We must get the information from the employers and, in the case of the self employed, the workers themselves. No doubt some occupations, hitherto believed to be agricultural in nature, would be found not to be dependent on farm experience and/or training of the worker in agricultural subject matter. The reverse could likewise be true of some others.

It does appear, however, that if teachers are to bring about this correlation they will need to do several things. They should introduce the idea early to the student, his parents and his school counselor. In the instruction which teachers give leading to the selection of farming programs they would need to keep in mind and keep before the students that supervised farming programs can and should help them to formulate more clearly their occupational goals, if in the broad field of agriculture. Then, as teachers base instruction on these farming programs, more stress should be placed on development of farming abilities that could be used in a wide variety of occupational fields.

Finally, as teachers and others evaluate farming programs, the questions they seek to answer should reveal their concern with appropriate outcomes. Have these projects and other activities helped the student to explore his interests and aptitudes? Have they provided him with under-

standings and abilities in line with his first, second, and third choice of occupational goals? Have they provided him with the kinds of experiences he needs? Have they helped him to move in the direction of his occupational goal? Perhaps there are greater values inherent in supervised farming programs than most of us have yet realized. □

## Showing the Way - - -

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occupations related to farming for many boys who should not become established in farming. A student's training in farming while in vocational agriculture will be an asset to him in an occupation related to farming. It is my opinion that the better a student's training has been while in vocational agriculture, the more assets he will possess for a related occupation.

There are many resources in a community or area which may be helpful in a good guidance program. Some resources which I have discovered and used in recent years are visits to local plants processing agricultural products, stores selling agricultural supplies and equipment, banks serving farmers, and local cooperatives. Visits to agencies or individuals serving farmers such as the artificial inseminator, the Extension Service, the SCS, and the DHIA service man have proven helpful.

There are those who should go to college and study agriculture. It has been my practice to go with such students to the college and help them select a curriculum.

Good guidance requires careful planning. Planning and guidance have their rewards. One of the most satisfying moments in the career of an agriculture teacher comes when he has "inspired a student to aspire" through good guidance and the student has made good. When the teacher has helped a young man make a wise choice of a vocation and has helped him develop into a leading citizen, he realizes his guidance has produced good results. □

## Problems Related - - -

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large, well-balanced programs of supervised farming to be used as a foundation for establishment in farming.

5. Course content should include partnership arrangements even in the first year of vocational agriculture.

6. Course content in high school

should deal with the opportunities in farming and motivate students to become farmers.

7. Course content should deal to a larger degree with farm management problems rather than specific skills or approved practices which may be out of date before the young man becomes a farmer.

8. Course content should include available credit agencies which may be used by young men to become established in farming.

9. High school graduates of vocational agriculture who are planning to farm should be encouraged to attend college to help solve the problems of experience and education.

10. A young farmer program should be set up for graduates during the adjustment period between the ages of seventeen and twenty-three or-four. This program would be the hardest to carry out and many instructors consider a program for this age group impossible. However, it would appear that this is the most critical period of a young man's life. Since these young men are accustomed to a regulated type of instruction, it may be advantageous from the standpoint of regular attendance and encouragement to work somewhat harder to offer high school or college credit for these courses. High school credit could be given for those people who have not attended high school. If something could be worked out to give college credit for those who have graduated from high school, perhaps more of them would be encouraged to go on to college after a few years in addition to creating more interest and participation.

11. Young farmer programs should also be provided for those men twenty-three or -four years of age who are farm owners. During this period these men will have different problems than the younger group or the older farmers.

12. The young man who does not enter college should perhaps be encouraged to get his military obligation out of the way as soon as possible after high school graduation. □

## The Cover Picture

Guidance Counselor M. C. Burton, Keene Junior High School, New Hampshire, explains the Vocational Agriculture Program to three potential college preparatory vocational agriculture students. The chart is an adaptation of the outline prepared by H. N. Hunsicker, Program Specialist of the North Atlantic Region.

Some suggestions for - - -

## Establishing a Home Farm Shop

HARRY L. STROUTH, Vo-Ag Instructor, Clintwood, Virginia



Harry L. Strouth

IN order to keep farm machinery, buildings, and equipment in good repair, a farm workshop of some type is essential regardless of the size of the farm. Often a well-planned home farm shop has meant the difference of operating on a profitable basis rather than at a loss in the farm business.

A shop may be set up in a part of a present building or a separate building may be constructed for the shop. Many farmers add machine shelters to the shop building.

### Justifying the Establishment of a Home Farm Shop

A home farm shop when properly organized, equipped and used affords the following advantages:

1. Provides a suitable place for orderly and systematic storage of equipment and tools, thus saving time spent in looking for "lost" tools.
2. Provides a suitable space for working on farm equipment.
3. Saves time and reduces repair expenses by eliminating trips to the repair shop.
4. Provides the opportunity for machine maintenance and repair during bad weather, at night and on holidays, leaving good working days for other necessary work.
5. Encourages the farmer to stock spare parts and supplies for emergency repair jobs.
6. Encourages the reconditioning and repair of equipment which otherwise might be discarded.
7. Encourages and makes possible the construction of useful equipment, usually at a low cost.
8. Provides the opportunity for increasing farming efficiency through improved maintenance of farm machinery.

### Providing a Farm Shop Building

Temporary quarters such as the inside of a garage, a shed, or a part of an unused building may be used

as a beginning farm shop to store accumulated tools. However, it is essential that a permanent shop building be carefully planned before construction is started. The kind, type, and size of building will depend on such factors as the size of business, finances, ability of the individual and type of farming being carried on. The following points should be considered in planning a new building or making alterations to a present building.

1. The farm shop should be located near or attached to the farm machine storage shed. It should be at least 150 feet from any other building (except the machinery shed) and so located that more machinery storage can be added when needed. Where convenient, the building should face the south on a well-drained location.
2. The shop should be large enough to house the necessary shop tools and equipment, and to accommodate the farm machinery and the construction and repair jobs usually done on the farm. Build in 16 foot sections, 28-32 feet deep.
3. To admit entrance of the average farm truck with cattle frames, the height, to the bottom of the lintel above the large entrance of the farm shop, should not be less than ten feet. The machine shed should be the same height unless special machinery such as self-propelled combines are to be sheltered. In such cases there should be one section or more of sheds adjoining the shop constructed to meet these special needs.
4. Use brick, tile, cinderblock, concrete block, metal siding or wood in constructing the building. Masonry block is probably the most economical; wood may be cheaper in some situations but not fireproof.
5. Use "A" or shed type roof. If shed type is used, the roof over the machine shed can be supported by a wooden or steel beam and posts.
6. Windows should be located in at least two walls to provide uniform lighting. This will permit cross ventilation for fresh air and removal of smoke and fumes.
7. There should be three doors to

a shop: one large entrance door 10 feet wide, a three-foot side door near the front of the shop and another three-foot side door leading to the machine storage shed near the back of the shop. The large entrance door should be either an overhead or outside sliding door.

8. The floor of the shop should be made of four-inch concrete using a 1-2 $\frac{1}{4}$ -3 mixture of cement, sand and gravel. Three inches of gravel or cinders should be used under the concrete to permit drainage. Well-packed dirt will be satisfactory for a temporary floor in the machinery storage shed.

9. Water should be piped to a flat rim sink in the shop. Water is used in cooling hot metal, filling radiators, cleaning tools, fire protection, and washing after working in the shop. One faucet should have a hose bib and garden hose connected to it at all times. A stop and waste valve should be installed so the pipe in the building can be drained in extremely cold weather.

10. Provisions should be made for heat so that work can be done during cold weather. Coal, wood, natural gas, and oil heaters are satisfactory.

11. Electric wiring is of extreme importance in the farm shop building. The service equipment should be provided with a 3-wire, 230-volt single phase service. Under no circumstances should the feeder wires or the entrance cable be smaller than No. 8 wire. The entrance panel should contain a 60-amp minimum fused switch or circuit to provide separate circuits for lighting, convenience outlets, power equipment and range outlets for welders.

12. The 115-volt duplex convenience outlets should be located around the shop walls at a maximum distance of 12 feet apart. An outlet mounted on the side of the work bench is useful for plugging in portable tools and other smaller equipment. An outlet should also be provided in each section of the machinery shed.

13. A separately fused 230-volt outlet should be provided for each motor over  $\frac{1}{2}$ -horsepower capacity. One 3-wire polarized outlet should be provided near the large entrance door and one near the small door leading into the machinery shed for plugging in the arc welder. This

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**Establishing - - -**

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allows welding to be done in the shop, outside the shop and in the machinery shed.

14. A general overhead lighting outlet should be provided for each 100 square feet of floor area. A maximum of six 300-watt bulbs should be placed on a circuit. A local lighting outlet over each work bench is needed for close work. A large floodlight mounted over the large entrance door on the outside is useful for outside night work. Two 200-watt (minimum) overhead lighting fixtures should be provided in each section of the machinery shed.

15. There is the ever present danger of fires in any farm shop. A structure made of masonry blocks and ceiled with asbestos board eliminates much of the risk of great losses when fires do occur. Fortunately both of these materials are inexpensive and can be used in building a shop by the average farmer.

**Constructing a Farm Shop and Machinery Storage Building**

After thoroughly considering the factors to be included in the farm shop building, the next step is to secure plans and construct the building. A suggested floor and equipment plan is shown in Figure 1, and a suggested electrical plan is shown in Figure 2. These plans are for a combination farm shop and machine shed. As previously stated, the building should be located and constructed so that

more sections for machinery storage can be added at a later date. It is necessary in most localities to build a permanent wall between each two sections for fire protection.

**Selecting Equipment**

Before buying any new equipment, a list should be made of the equipment needed for the shop, including the power equipment. This list should include the size of each piece of equipment.

After the list is completed, the equipment already on hand should be checked off and the revised list used in securing equipment.

Quality tools should always be the first factor in buying. It is better to buy fewer tools of good quality rather than many of poor quality. A

standard brand medium-priced tool is generally satisfactory for a home farm shop.

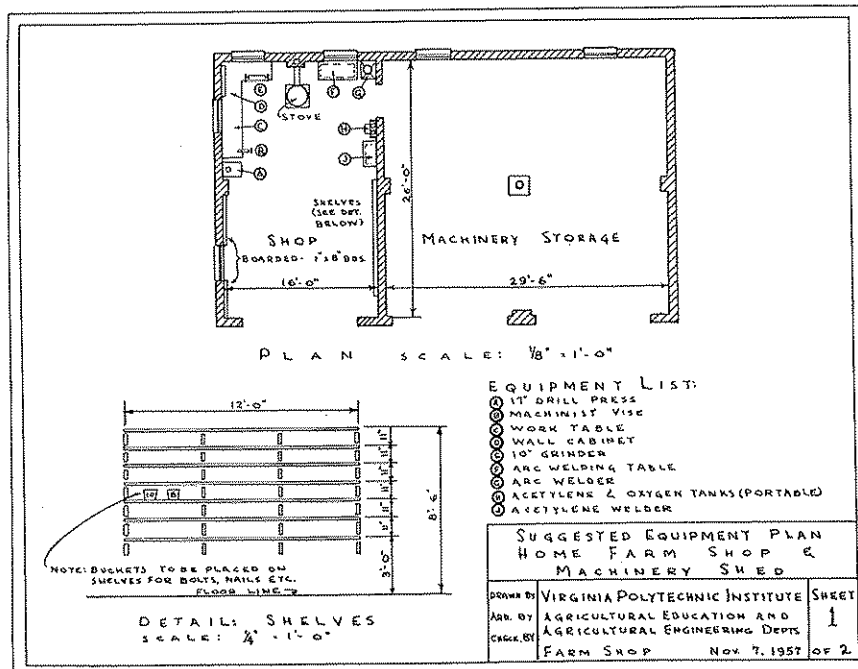
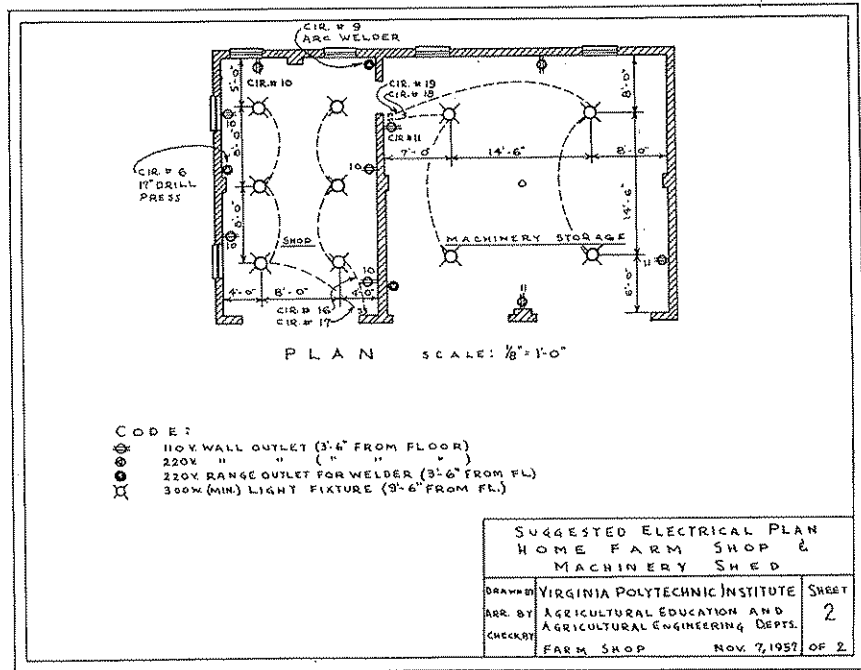
In buying power tools, it is essential to buy tools large enough as well as those of good quality. An example of this is an arc welder—never buy one with a capacity of less than 180 amperage.

If all the tools are not bought at one time, buy those to meet the most urgent needs first. It is usually best to secure essential hand tools first, then secure essential power tools.

Your state agricultural college can supply you with the names and specifications for shop equipment in suggested order of importance.

**Arranging Equipment and Supplies**

In arranging the equipment, the



center of the shop floor should be kept open for room to construct projects and repair machinery. The work benches can be fastened along the ends and sides of the shop or placed out from the wall. Tool cabinets should be placed on the wall over the work benches as near the place the tools will be used as practical. Vices should be placed near the end of work benches.

The tool panels or cabinets should be constructed with sufficient space for each tool and a holder for mounting each tool. The silhouettes should be painted behind each tool in an effort to keep all tools in place and show plainly what tools are missing.

Supplies should be organized in a cabinet so they can be easily located and inventoried. Figure 1 gives

The teacher plays many roles in - - -

## Conducting the Young Farmer Program

C. B. FEAGANS, Vocational Agriculture Instructor, Amherst, Virginia



C. B. Feagans

THE success or failure of a young-farmer program depends to a great extent upon the relationships which exist between the young farmer and his instructor.

The teacher occupies a unique position in the young-farmer program. He is a friend, a counselor, an advisor, an instructor and a supervisor. With each of these goes a responsibility which the instructor must not consider lightly.

The good teacher will enjoy the respect of young farmers by exerting sympathetic and understanding leadership. His experience and technical training will enable him to help young farmers find the answers to many of their problems. His training has taught him where to find reference material and how to use it. He has a knowledge of what is offered by other agricultural agencies which may benefit the young farmer. These sources of information soon identify him as a key leader in the community.

It should always be remembered that the young-farmer program is an integral part of vocational agriculture. Its activities should conform to the patterns established by the local school board. The instructor should be recognized as the head of the local department of vocational agriculture.

The three leading roles of a teacher are:

1. The teacher as an advisor.
2. The teacher as an instructor.
3. The teacher as a supervisor of individual farming programs.

The teacher as an advisor has the responsibility of encouraging and aiding young farmers to organize and maintain a local young-farmer association as a part of the young-farmer program. The interest of the advisor is indispensable to the successful operation of the local association. The weight of the total program does not rest entirely on the shoulders of the advisor. His presence at association meetings has morale-building and inspirational effects on the entire membership. He usually sits in the rear of the room and observes closely the conduct of each meeting. He raises his voice when he thinks it is needed; otherwise he makes few comments except when called upon.

The advisor takes a more active part when planning the annual young-farmer program of work by suggesting activities and methods of accomplishment. He has had more experience along this line than any of the members and the group will appreciate his suggestions.

The responsibility of the teacher as an instructor is different from that of advisor. He is directly responsible for the instructional program for young farmers. The class members may assist the instructor in planning a program that is based directly on their needs. Much of the instructor's time is spent in doing the actual teaching, using various methods to secure and maintain the interest of the young

farmers and to make the instruction effective and worth while. In some cases he may have others carry on the instruction under his general direction.

The role of supervising the individual farming programs of young farmers is the third responsibility of the teacher. This in effect, is on-farm instruction. It is in this role that the instructor is afforded a most challenging opportunity of guiding young farmers to use operational skills and make wise managerial decisions. Frequent visits to the farm are required, especially during critical periods. Much time can be saved if these visits are pre-arranged by telephone or letter.

Alert young farmers feel a certain responsibility toward a young-farmer program. They realize that the program is a cooperative undertaking between themselves and their instructor. They can do a number of things that will result in a stronger program. A few of these activities are:

1. Meet with the senior members of the local FFA Chapter and invite them to join the association after graduation.
2. Encourage young farmers in the community who are not enrolled in the program to enroll and become active participants.
3. Attend meetings regularly and be active in committee assignments.
4. Be boosters for the young-farmer program.
5. Meet with the local school board at least once a year to report accomplishments and express appreciation for the use of high school facilities and other features of the program.

Reference:  
Nichols, Mark, *Young Farmers, Their Problems, Activities and Educational Program*. Danville, Ill.: Interstate. 1952. pp. 65-70.

### Establishing - - -

(Continued from page 231)

a detail of shelves and buckets used for storing nuts, bolts, nails, etc. Lumber and metal storage may be provided for along the wall in the machine storage adjoining the shop.

#### Maintaining Equipment and Supplies

Maintenance means keeping the equipment in good working condition and also keeping a variety of needed supplies.

A small desk or table should be

provided in the shop for keeping machinery operator's manuals, catalogues, shop books, and plans.

For maintenance of the power tools, the operator's manuals should be studied and directions followed. The hand tools should be kept clean, painted, well handled; cutting tools should be kept sharp. Secure and follow the instructions in a farm shop book for cleaning, using and sharpening tools.

Keeping a good stock of supplies is one of the most essential jobs in managing a home farm shop. There should be a reasonable amount of

practically all the supplies needed. This includes most sizes of nails, screws, and bolts; glue; welding rods; gas; paint brush cleaner; glazier points; round, flat and angle iron; and other materials needed. Parts that are often broken in farm machinery should be kept in reserve. Parts and supplies for each machine should be organized and grouped together as this simplifies finding the parts and the owner is mindful as to their location. By following this method very few parts are lost and an accurate inventory is easily made. □



# Relation Between Home Characteristics of Farm-Reared Senior Boys and Their Occupational Choices

MELVIN R. SALMELA, Graduate Student, Iowa State College.



Melvin R. Salmela

THIS<sup>1</sup> study was one of a series conducted cooperatively by graduate students in agricultural education at Iowa State College. Four studies were conducted to determine the status in nonfarm occupations of farm-reared high school male graduates who graduated between 1943 and 1954 inclusive. Two studies were concerned with the relationship between home and high school characteristics of farm-reared senior boys and their occupational choices.

## Purpose

The purpose of this study was to determine the relation between home characteristics of the senior boys and their occupational choices. Twenty schools in the north central cash grain and eastern livestock farming areas of Iowa which offered vocational agriculture were paired with 20 schools in the same areas which did not offer vocational agriculture. The schools were paired to have similar soil types in the community in which they were located, similar school enrollments, and a similar level of living index in the community in which the schools were located.

## Method

All farm-reared high school senior boys from these schools completed a questionnaire which was administered by one of the six investigators. Eighty-one sons of landowners and 27 sons of nonowners from both types of schools were included in the sample. Only those boys (from the vocational agriculture schools) who had three or more years of vocational agriculture training were used in the study. If the parents owned any of the land which they operated, they were considered to be landowners.

Each boy was asked to indicate, in order of preference, three occupations which he would like to enter or receive more education in after completion of high school. The first choice

was used to categorize the boys into the following occupational choice groups: farming, professional occupations which require at least four years of college education, and other occupations which included all those which could not be classified with the other two groups. The first choice of each boy was given an occupational prestige score from the North-Hatt Scale of occupational prestige. Then all three choices were given a prestige value from the same scale and the average value was used as the occupational choice prestige value of each boy. These were the three criteria used for studying the occupational choices of the farm-reared senior boys.

## Findings

No significant differences were found in the occupational choices of the senior boys with vocational agriculture training and those boys with no vocational agriculture training when using any of the three criteria. This was also true with regard to the differences in the occupational choices of the sons of nonowners. With these findings the sample was no longer stratified on type of school attended or the farming status of the parents.

Of the 216 boys in the total study, 91 chose farming for their first occupational choice, 71 chose professional occupations, and 54 boys were classified as choosing other occupations. The boys who chose farming were from larger farms but the difference was not significant. No relationship was found between the size of farm-operated and the occupational prestige scores of the first choice or all three choices of the boys.

Senior boys who chose other occupations had more brothers and sisters than did either of the other two occupational choice groups, and again the difference was not significant. When using the first occupational choice, the more brothers and sisters a boy had, the lower on the occupational prestige scale would his choice rank. This relationship was found to be significant in the negative direction. The relationship between the number of brothers and sisters the senior boy had and the prestige value

of the three choices was negative also but nonsignificant.

The boys who chose professional occupations had younger fathers, but the difference was nonsignificant. There was no significant correlation between the ages of the fathers and the prestige score of the occupational choice of the boys. However, the relationship between the first choice and the ages of the fathers was negative.

The mean years of education of the fathers for the occupational choice groups were as follows: farming, 9.32 years; professional occupations, 10.34 years; and other occupations, 9.16 years. The fathers of the senior boys who chose professional occupations had significantly more education than did the fathers of the boys who chose farming or other occupations. The relationship between the first choice and the education of the fathers was not significant. The education of the fathers was found to be related to all three choices at the one percent level. The more education the fathers of the farm-reared senior boys had, the higher would be the mean occupational prestige scores of the three choices.

The years of education of the mothers of the boys was found to be very uniform. The mean years of education for all the mothers was 10.81 years. The difference in years of education of the mothers for the three choice groups was found to be nonsignificant. There was no relationship between the education of the mothers and the prestige scores of the first choice of an occupation, or all three.

The multiple correlation of the mean occupational prestige scores of three choices with the education of the father and mother was found significant at the one percent level. The education of the fathers contributed 96.4 percent to the multiple correlation.

Each senior was asked to indicate on the questionnaire to what extent future plans had been discussed with their parents. The senior boys who chose professional occupations had discussed future plans with their parents to a greater extent than did the boys who chose farming, and the boys

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<sup>1</sup>From M.S. Thesis by author, 1958.

# Let's All Build a Fair Booth

Some advice on building a good booth and helping students learn

JOSEPH B. RANDOLPH, Vo-Ag Instructor,  
Ceres, California

Booth planning and building gives boys many practical problems to solve and a real opportunity to learn by doing. They have to incorporate such things as thinking out a problem, cost analysis, scale drawings, model construction, color combinations, lighting and wiring, scheduling, meeting and giving information to people, and learning to work together as a group.

FFA boys should be given the opportunity to plan and work together on cooperative projects, such as fair booths, so that they will be better prepared to live up to their civic responsibilities in adult life.

## Planning

Planning and constructing the booth probably should be done primarily by the Agriculture III class. This will give them many practical applications of things previously learned and also a chance to review their weaknesses. Representatives from each class should be allowed to work on the exhibit so that there will be a few experienced helpers each year.

This is a good, practical way for

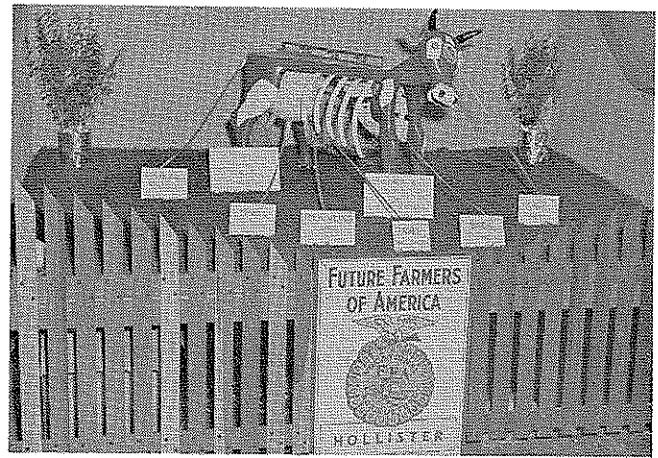
boys to gain much useful knowledge while under supervised leadership. Units of study should be conducted that correspond to the phase of booth planning or construction that is actually being carried out.

Have each Agriculture III boy make a scale drawing of what he thinks would be a winning booth, keeping in mind the materials at hand and the money available to him. The plan should include moving parts that give a three-dimensional effect. Boys should use imagination in planning their booth, as well as skill and neatness in making a good scale drawing.

A few boys could construct a scale model of the booth. A cardboard packing box with one side cut out serves nicely as the outside walls and floor. The tables, displays, lights, etc., should be made to scale and placed in their appropriate places. This will teach the boys proper sequence of

activities and the mean prestige score of three choices was significant at the one per cent level. The more active boys were choosing occupations with higher prestige values.

Each boy was asked to indicate the years of participation in, offices held, and special honors received from church young people's groups or participation in a church choir. The difference in participation between the three occupational choice groups was nonsignificant, however, the boys who chose professional occupations had participated more in church activities. The relation between the prestige value of the first occupational choice and amount of participation in church activities was nonsignificant. The relationship between church activity participation and the mean value of three occupational prestige scores was significant at the one percent level. Seniors who chose occupations with higher prestige values participated more in church young people's



This excellent booth incorporates the features listed under "Points To Remember." A place card at the cow's feet reads, "Students Will Never Forget My Good Points." On her back is a carpenter's level with the legend, "Back Level." Actual springs makes her "Ribs Well Sprung." Her body, made of barrel staves, is a "Strong Barrel." The "Dished Face" has a dish inserted in it, and so on. The cow revolves on a turning platform, showing all her good points.

parts, color combinations, correct lighting, and how to construct models to scale.

Since most fairs occur during the summer months, a list of boys that will be available should be compiled in order that they might help in setting up the booth when the time arrives.

The theme must have the FFA incorporated in it and emphasize that the boys are learning. It is very important to develop a clever idea that conveys the theme to the viewers.

The display should be simple and not cluttered up with small items, because the span of time spent in viewing an exhibit by the average

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## Relation between Home - - -

(Continued from page 233)

who chose farming discussed future plans with their parents more than did those boys choosing other occupations. The difference in the amount of discussion of plans about the future was found to be significant. The relationship between the amount of discussion of plans with parents and the occupational prestige score of the first and the mean of three occupational choices was found to be significant.

Seniors who chose other occupations participated significantly less in 4-H and Boy Scout activities than did those boys who chose either farming or professional occupations. The relationship between the first occupational choice as measured by prestige and the amount of participation in 4-H and Boy Scout activities was significant at the five percent level. The correlation between the amount of participation in 4-H and Boy Scout

groups and church choirs.

The multiple correlation between the occupational prestige value of the first choice and participation in 4-H and Boy Scout activities with church activities was significant at the five per cent level and with the mean of three choices the relationship was significant at the one percent level. When using the mean prestige value of three occupational choices, participation in 4-H and Boy Scout activities contributed 91.75 percent of the multiple correlation while participation in church activities contributed 8.25 percent.

There was a nonsignificant difference in the use of information about occupations from home related persons or all sources among the three occupational choice groups. The boys who chose farming did get more information about occupations from

(Continued on page 235)

What is your answer to - - -

## Could These Problems Be Our Concern?

W. H. MARTIN, Teacher Education, University of Connecticut



W. H. Martin

THE Land Grant colleges provide many of the basic references used in teaching vocational agriculture. The publications are valued for their reliability and adaptability to conditions in a given state. In recent years, the Land Grant colleges of agriculture included many which are not directly associated with problems of production, marketing or management. The expansion of subject-matter areas in these publications would seem to indicate a recognition of new needs for information on the part of rural people.

From lists of publications of Land Grant colleges of agriculture, over four hundred titles were selected and grouped as a basis for appraising needs of rural people as reflected in the publication efforts of the colleges. Publication titles dealing directly with production, marketing and management were excluded. On the basis of these titles seven areas of need were indicated as follows:

1. establishment in farming
2. adjusting to a changing agriculture
3. attaining economic security
4. participating in community life
5. improving community services and facilities
6. protecting health
7. being responsible to, and for, government

Each of these areas is discussed briefly as a question or objective for consideration by a teacher or consulting committee. Illustrations are given of topics considered in Land Grant publications for each area.

1. Establishment in farming is recognized by teachers of vocational agriculture as a major objective. Establishment in farming in the ultimate, means acquiring control of a farm which will be operated by the individual as a family farm.

Most Land Grant colleges list bulletins on the problem of acquiring operating control of a

farm. The publications reflect a central position that farms are family units and deal with four alternative ways of acquiring control of the farm unit; purchase, lease, inheritance, and partnership (family operating agreements). About 100 of the 450 publications in the selected list dealt with the problem of acquiring control of the farm unit.

2. To what extent do or should we assist farm and rural people to understand the changing scene in agriculture? Its effects upon their lives and prospects? Its influence upon the rural community? Publications on the following topics point to the existence of this as a problem area in some situations:

Land ownership	Urbanization
Tenure changes	Zoning
Part-time farming	Population changes
Social change	Land use
Laborer-operator	relations

3. To what extent do or should we assist farm and rural people to evaluate and plan for economic security? Individual and family security? The probable importance of this problem area is indicated by publications dealing with such topics as the following:

Capital accumulation	Levels of living
The aged	Provisions for security
Social Security	Rural relief
Retirement	Inheritance
Compensation insurance	Wills
Low income families	Estates
	Employment and income

4. To what extent do or should we assist farm and rural people to participate effectively in community organizations and in community betterment?

Publications are available which deal with:

Community buildings	Constitutions
Successful meetings	Community improvement
Social action	Social participation
Rural organizations	Social status
Zoning	Suburbanization
Recreation	Community health
Farm and rural leadership	

5. To what extent do or should we assist farm and rural people to utilize or improve the following in their communities? The follow-

ing were noted in the selected list of publications:

Libraries	Cooperatives
Hospitals	Schools
Medical personnel	Electrical and telephone services
Churches	Rural roads

6. To what extent do or should we assist farm and rural people in protecting health? A concern with this problem is reflected in publications on topics like these:

Housing	Biological warfare
Health practices	Medical care needs
Safe lighting	Use of health services
Community health	Mortality
Family health	
Water supply	

7. To what extent do or should we assist farm and rural people to solve problems involving their responsibilities to and for government? Nineteen Land Grant institutions listed publications which were judged to be in this area. The following topics are indicative of the area:

Citizenship	Federal market orders
Taxation	Interstate barriers to trade
Income taxes	Legal aspects of cooperatives
Tax delinquency	Price supports
Real estate tax assessments	Zoning
State and local finance	Marketing regulations and laws
Financing education	

The recent lists of college of agriculture publications indicated considerable emphasis upon areas other than those of production, marketing and management. These areas may be assumed to reflect needs of rural people. To the extent that the identified areas do constitute real problem areas for farm families, they merit consideration in planning for vocational agriculture. It is perhaps reasonable to guess that upper-class students and young and adult farmers are the groups which might study in these areas with greatest profit. □

### Relation Between - - -

(Continued from page 234)

both sources as would be expected since they were all farm boys, however the difference was not significant. There was no significant relationship between the use of information about occupations from home related persons or all sources and the occupational prestige value of the first choice or the mean prestige value of three occupational choices.

This study revealed that some home characteristics are related to occupational choices of farm-reared high school senior boys. □

Did you know that - - -

## Sally Ann Is Your Competitor

. . . in connection with Young Farmer Classes?

J. C. POTTS, Vocational Agriculture Instructor, Kembridge, Virginia



J. C. Potts

"GOING to the Young Farmers' meeting tonight, Bill?" "No, I can't make it." Why couldn't Bill make it? He may give Richard, who has just called, any number of seemingly valid reasons, but I'd

be willing to bet that Sally Ann was the real one. Sally Ann is a member of the opposite sex. She may be a girl friend or she may be a wife.

Bill, Richard and other young farmers are in the age group that needs to make two of the most important decisions in their lives. It can be assumed that one has been made, at least temporarily, if he has enrolled in your class. The other is selecting a life mate. Sally Ann is constantly competing with you for the attention of Bill, Richard and other young men like them. This competition doesn't cease after marriage, in fact it gets keener. After marriage Bill becomes more interested in making Sally Ann happy and less concerned with himself. He had rather be with her than any other person. They confide in each other and share alike the joys and sorrows. Their basic aims and

values in life become similar. "I" and "me" positions drop to the background and the primary interests are in making each other joyful. Most couples who are happily married are able to compromise their differences with apparent ease. The giving and taking and the forgiving and forgetting come readily. They are slow in becoming angry and they seem to have a complete understanding of each other. To put it simply they are now in love. They grow into it.

Farming offers this family what very few other occupations can with respect to building family solidarity. Companionship has the effect of making a feeling of oneness and union. A good sense of humor also serves as a cementing factor. Wives who can see their husbands off in the morning with a smile and greet them home at night with another smile are truly worth their weight in petunia seed. The cheerful husband is worth the same price. Sane expenditures of money is another factor that builds family solidarity; and wise is the man who recognizes this and makes her a real partner in the farming business. The wife is often the secretary-treasurer of the business and keeps the farm accounts. Farming also offers an opportunity for all members of the family to work together and

thereby learn to know, understand and appreciate each other.

Farm management studies have indicated that the interest and cooperation of farmers' wives in farm activities are associated with success in farming. In analyzing the data from these studies, one conclusion was that high farm incomes were associated with a high degree of interest and cooperation on the part of the farmers' wives. Desirable family relationships are not to be encouraged only because of the monetary value of them.

Other studies have indicated that groups of out-of-school youth preferred meetings that included both sexes.

We, as vocational agriculture teachers, should apparently encourage the development of cooperative programs with homemaking groups or else make provisions for some group activities which will involve participation by both sexes. We could assume that cooperation in educational, civic, and recreational activities will lead to better cooperation in the home.

Below are some suggested areas of study that probably would be of interest to mixed groups:

1. Getting started in a vocation
2. Getting along with people
3. Beautifying the home grounds
4. Planning insurance needs
5. Using credit
6. Safety
7. Technical agriculture

Think about these the next time you are planning your young farmers work and, on your next visit to Bill's, take time to chat with Sally Ann. □

Some suggestions for - - -

## Curriculum Improvement in Vocational Agriculture

JOHN E. MILLER, Administrative Assistant to the Superintendent of Schools, Centreville, Maryland



John E. Miller

It would be very difficult to do much work with a tractor without gasoline to operate it. So it is in vocational agriculture that a complete program cannot develop to any great extent unless there is a plan of action. This plan of action is a well-planned curriculum or course of study.

The teacher of vocational agriculture has a distinct responsibility to his community to develop a course of study that meets its needs. The agriculture teacher is in a better position than anyone else in his community to appraise the instructional needs. The teacher should make use of all the available resource people in the community to assist him in this task. Local school administrators and supervisors have a responsibility, also, in helping guide the vocational agriculture teacher. Oftentimes they can give insights to problems that exist in a

given community that the teacher may not see.

In attempting to fulfill the needs of the community, the vocational agriculture teacher could make a farm survey to determine pertinent agricultural facts about the community. This survey could also be a continuing sort of project which could be made periodically to discover needed changes.

Key farmers, local farm organizations, and local extension personnel may also be used to help the teacher assess the community's needs. After

(Continued on page 237)

# Meeting College Entrance Requirements

WILMER L. HARRIS, Vo-Ag Instructor, Mechanicsburg, Pa.



Wilmer L. Harris

WITH "Mutniks" and "Sputniks" going over our heads every 90 minutes, much pressure has been put on our schools and colleges. As a result of the sudden attempt to conquer outer space, the colleges have, in some instances at least, been raising their entrance requirements in mathematics and the sciences.

How does this affect vocational agriculture? When you have an agriculture student who has the ability and desire to go to college does your guidance director say to that student, "You must take the college preparatory course"? I believe he does. Often this boy is a potential state farmer and leader in your chapter.

I believe we are "losing" many of these students because we don't have a program to meet their needs. This, in a sense, degrades our program because the "cream of the crop" must take some other course.

Through the cooperation of your administration, we can change our program so that a boy can stay in our course and yet be eligible for entrance

## Curriculum Improve . . .

(Continued from page 236)

sufficient data has been accumulated, the Vo-Ag teacher should attempt to determine the major farm production enterprises present in the community. Next, a listing of the problem areas or teaching units under each enterprise that are present will provide good teaching materials.

Because one enterprise is more important than another in a given community, it would be wise to determine the approximate amount of class time which could be devoted to each. Once it is determined for each enterprise, the approximate amount of class time for each problem or teaching unit of the enterprise can be estimated. At the same time, the teacher should determine the approximate month in which a unit should be taught, keeping in mind seasonal sequence. Determining the year or years that

into college.

After a program suitable for college entrance has been arranged, we must encourage potential college students to elect all the mathematics and required sciences possible even though in ninth and tenth grades

he is quite sure that he will not go to college. It is most disheartening to have a senior decide he would like to go to college but can't because he lacks the required subjects.

At Cumberland Valley, I believe we have made a step in the right direction for meeting these requirements. We have only a six-period day which makes it difficult to schedule academic subjects. Possibly with a seven-period day still more improvement could be made.

Our curriculum for vocational agriculture students included, in addition to the regular subjects, the following: ninth grade, science or general mathematics; tenth grade, general mathematics; eleventh grade, general mathematics; and twelfth grade, senior

the units should be taught in the overall program is also essential.

The logical next step would be compiling a monthly teaching calendar of the various teaching units from all the enterprises. Besides determining the community needs in productive enterprises, determination should also be made in the amount of time and units to be taught in farm management, FFA or NFA, and supervised farming programs. Careful analysis of the needs in the area of farm mechanics must also be estimated. As the investment in machinery and buildings creeps higher and higher, the area of farm mechanics takes on a new significance.

Once the Vo-Ag teacher has prepared what he thinks to be a plan of action or course of study for his department or community, an honest trial must be given it. Probably the



Vo-Ag student Edward Weber working on experiment with his chemistry teacher.

most valid trial would be using it for at least one year. It then becomes the teacher's responsibility to evaluate the program. The students in the department can be a great help in doing this task. Don't be afraid to ask for help in evaluating the program. Make use of the persons you used in making up the program. They can help you determine the successes and failures of the trial program. A local advisory council in a department could help do this task.

mathematics. This gave no opportunity for the student to get biology, chemistry, etc.

This year, in place of the subjects just mentioned, the students will have: ninth grade, science; tenth grade, biology or chemistry; eleventh grade, general mathematics or algebra I; and twelfth grade, senior mathematics or plane geometry. This gives the students an opportunity to take the required subjects and still not miss any agricultural classes.

Depending on his choice of curriculum in college, however, this program still might not meet requirements. In this case some other adjustments would have to be made in scheduling and the student might have to miss a few agricultural classes in order to take the required subjects. □

If changes are seen necessary in the program, make certain they are made. The process of evaluation is a continuing job. At no time should a program ever become so set as not to welcome change. The amount and speed of change in today's agriculture will necessitate continual evaluations and necessary changes in the curriculum or course of study in a Vo-Ag department in the years ahead. □

# An FFA Mothers Club

## Inspires the Sulphur FFA Chapter

JOHN D. VALLOT, Vo-Ag Instructor, Sulphur, Louisiana

No doubt this will be somewhat unusual to anyone, but really, I hope you read this story through as I feel confident you will be surprised to note the value of an FFA Mothers Club, organized under the same principle as the regular chapter of your FFA organization.

It all happened nine or ten years ago when we realized that "Mom" was somewhat interested in the FFA and was willing to devote some time to assisting her sons in the FFA organization. "Dads" were willing, too, but much work had to be done and often dad was too busy to do as much as the mothers could.

Constitutions and by-laws were set up and a banner was made showing the purpose of this club, which is now well known and considered one of the top organizations of women in our community.

Truthfully, these mothers were organized more or less for the sole purpose of stimulating more interest in the sons and to encourage them in their school work. Naturally, it did not stop there. As the club became more popular better ideas were discussed, and back in 1951 a trust fund was developed and a scholarship for one FFA member has been presented during graduation each year since that time. The scholarship is presented to the boy completing high school as an agriculture student

with the highest scholastic average in all subjects. Really, this has been a great help to one boy each year. It also gives a student something to look forward to. The president of the Mothers Club organization usually makes the presentation. In some cases, it just so happens to be a surprise to the president because it may be her son.

Approximately \$1500 is raised each year by these mothers. This fund is used strictly for various activities of the chapter. This, however, does not mean that we do not carry on our own fund raising activities in the chapter, because we keep an estimated fund of about \$1,500 to \$2,000 each year.

Some of the outstanding activities carried out by the Mothers Club in the Sulphur Chapter are:

1. Presentation of \$200 scholarship each year.
2. Expense-paid trip for two members to National FFA Convention.
3. Preparation of annual Parent & Son Banquet.
4. Sponsor two educational trips for all members of the chapter each year.

Color is very important. Several new luminous paints and card stocks are now offered on the market.

Most of the construction can be done outside of class time. Some supervised class time should be spent by each member of the Agricultural III class in helping with the booth construction to insure that everyone is aware of the problems involved.

The tendency at the present time is not to build the aisle or walk through type of booth. Since the simpler type is now used it is easy to prefabricate the booth in the school shop.

It would be good to have a few outsiders view the booth and give their opinion of it.

Schedules should be made out so that at least one boy, wearing his FFA jacket, would be on duty at all



In the picture are the officers of the Sulphur FFA Mothers Club for the year 1958 and the Mothers Club Banner.

5. Sponsor annual outstanding Christmas party for all members.
6. Sponsor senior class party each year.
7. Provide expenses for the various state, area and national contests that chapter may be taking part in.
8. Pay for transportation of livestock to various state and local shows.

Many activities are carried out by this group. It seems like they all enjoy their untiring efforts at any time they are called upon to help.

To me it is an inspiration, because whenever a group of that type shows as much interest as they do, you just have to feel like achieving more.

I suggest that you try an organization of this type. It may just work fine in your community as it has in mine. Also, the students themselves have a greater interest in achieving a higher goal. □

### Let's All Build - - -

(Continued from page 234)

stranger is only 30 seconds to 2 minutes.

Remember that people in America read from left to right. Lettering should be neat, the legends large and eye catching. Printing is first seen that is 2/3rds of the distance up from the floor and in the center of the booth.

It has been found that FFA boys, as a rule, do not do too good a job of printing. There are several good types of ready-made letters on the market. Ceramic letters are good, but they are expensive and easily broken. Plastic letters are the most useable because they are virtually unbreakable and are very inexpensive. Card-board letters are attractive, especially if thickness is desired.

times. This could fit in with his livestock schedule.

### Summary

An often tedious and thankless job for a Vo-Ag instructor can be made very interesting and informative for FFA boys.

FFA booths play an important part in presenting the vocational agriculture program. In the State of California there is an average of seven FFA exhibits per fair. With 70 fairs being conducted each year, this means that approximately 200 booths must be constructed and displayed. In many states there are no FFA booths but, when placed on a national basis, this figure still becomes tremendous. This opportunity to impress the public favorably should not be slighted. □



**FARM MANAGEMENT** by Lynn S. Robertson. Published by J. B. Lippincott Co., New York, 1958, 445 pp. Illustrated. Price \$4.40.

According to the author, this book was "written to give information about the farm as a business that will help in making of management decisions. It is intended primarily for high school students . . . . ."

The book is composed of 37 chapters in a framework of 13 units as some teachers might teach farm management. It does a good job of introducing the reader to farming and acquainting him with the business side of farming. The book covers in an exemplary manner the factors that must be considered in managing a farm and the importance of each of these. However, the teacher who is looking for a "what to do and how to do it" book will be disappointed. This book does not provide procedures that a farmer might use in making decisions for his own farming operations. For example, after reading the unit on cropping programs, the reader finds himself still wondering how he would go about deciding

which crops to grow.

The book is well illustrated with almost 150 pictures and about 75 maps, charts, and drawings which complement the text well. The type is large and easy to read. The organization of the book, including a profusion of subheadings, makes it easy for the reader to follow the sequence of topics.

Dr. Robertson is professor of agricultural economics at Purdue University.

—V. R. Cardozier

**CROP PRODUCTION IN THE SOUTH** by Glenn C. Klingman. Published by John Wiley and Sons, Inc., 440 Fourth Avenue, New York 16, N. Y. 416 pp., illustrated. 1957. Price \$4.95.

*Crop Production in the South* is well organized and excellently written. It contains an introductory chapter which relates crop production to the world in which we live; chapters on How Plants Grow and the Plant Kingdom, The Soil and Plant Growth, Crop Improvement Through Plant Breeding, Weed Control; and chapters on the major crops in the South.

The author has done a remarkable job of presenting the basic science materials regarding plant growth and development in readable language for high school students. Many pictures and drawings add to the effectiveness of the book.

The book is recommended for depart-

ments of vocational agriculture in the South.

Dr. Klingman is Professor of Field Crops, North Carolina State College.

—Gerald B. James

**Students of - - -**

(Continued from page 222)

per cent of the entering students; however, only eight per cent of the graduates were from these same counties.

The students with farm experience made slightly higher grades in courses in technical agriculture.

**Effect of Size of High School**

The size of the high school from which the students came had very little, if any, influence on college success. The percentage distribution within each of six high school class sizes, ranging from less than 20 to 100 and over, was relatively the same on the O.S.P.E. The percentage of graduates from each of these groups ranged from 20 to 30 with the smallest percentage coming from the largest high school class sizes. A smaller per cent of the students from the small high schools were dismissed; however, a larger per cent of the students from the small schools failed to return at the end of the quarters. □

**Are Vo-Ag - - -**

(Continued from page 228)

agriculture, the difference was not statistically significant.

The degree-of-satisfaction scale used in this study had a range of four points with "very satisfied" given a value of 3, "satisfied" given a value of 2, "dissatisfied" given a value of 1, and "very dissatisfied" given a value of 0. The difference in the mean occupational satisfaction scores was not significant.

The North-Hatt Scale of Occupational Prestige is a scale which gives numerical ratings of the prestige evaluations given various occupations by 2,900 persons questioned by the National Opinion Research Center. The highest value on the scale, 96, is given the occupation of U.S. Supreme Court Justice; the lowest numerical

value on the scale, 33, is given the occupation of shoe shiner. No significant difference was found between the mean occupational prestige ratings of the two groups of graduates.

In Table 2 are shown the mean values for the criteria of status for all graduates treated as a single group but classified according to period of graduation. Those who were graduated during the earlier period had a significantly higher occupational status with respect to all of the criteria than had those who were graduated in the latter period.

No relationship was established between the graduates' degree of participation in activities and their occupational status. For sake of clarification, it should be pointed out that single activities such as the FFA were not treated separately, but

that general classifications of activities were used.

No relationship was found to exist between the graduates' ranks in their graduating classes with their annual earned incomes, or with the graduates' occupational prestige scores. However, a positive, statistically significant relationship existed between rank in graduating class and the degree of satisfaction graduates expressed with their occupations in 1958.

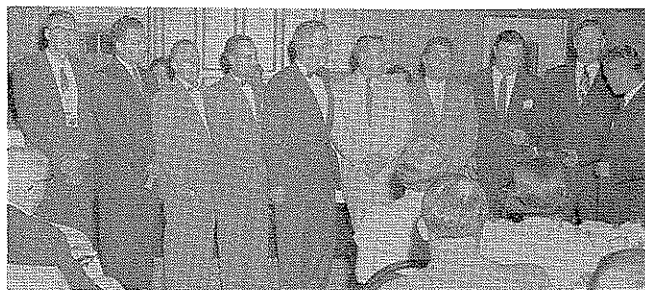
In summary, the results of this investigation revealed that no important difference existed between the occupational status of farm-reared male high school graduates who had studied vocational agriculture and those who had not studied vocational agriculture. It appears, therefore, that the effectiveness of the vocational agriculture program cannot be measured entirely by the number of graduates who become successfully established in farming. It also appears that the value of vocational agriculture to farm boys who enter nonfarm occupations after high school graduation is equal to the value that can be obtained from the other high school courses they may elect. □

Table 2. Occupational status of all graduates, classified by period of graduation, mean values.

Criterion of status	Period of graduation	
	1943—1948	1949—1954
Annual earned income . . . . .	\$5,030	\$4,210
Degree of satisfaction . . . . .	2.37	2.22
North-Hatt rating . . . . .	62.32	57.56



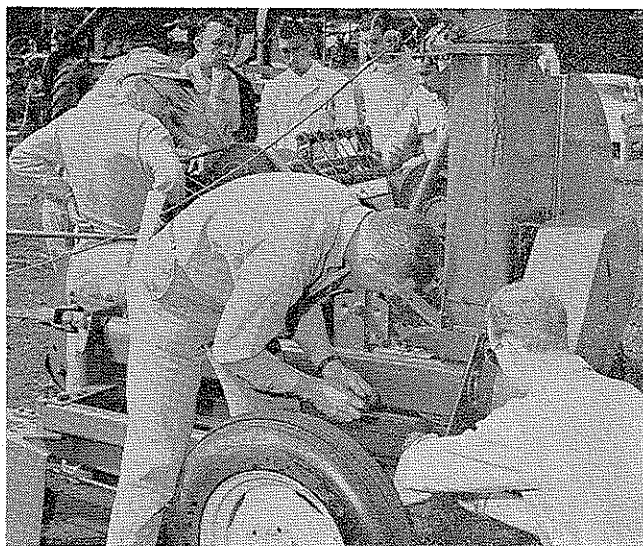
Members of Archibald Chapter of FFA set up a demonstration-exhibit at a county fair in New Jersey. Left to right—R. Freese, R. Manley, and Arlene Kern.



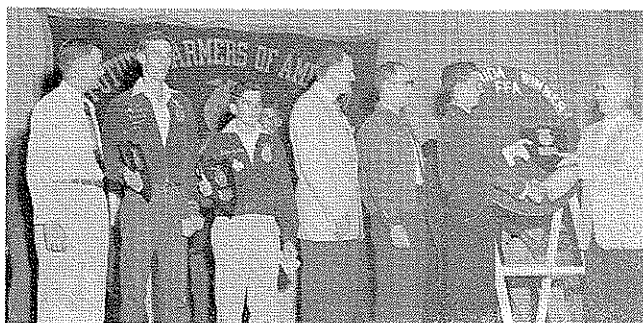
"Thirty Minute" certificates in recognition of having written an article published in a National publication were presented to nine members of the Association of Teachers of Agriculture of New York at the 48th Annual Convention on June 25th. Shown at the conclusion of the presentation by president-elect, Stanton B. Smith (left to right) they are: Kenneth Olcott, William Crane, Durwood Carmen, Joe Bail, Julian Carter, Robert Kirkendall, Elliott Johnson, George Salisbury, Harry Ketcham.



Wisconsin FFA officers visit Consolidated Badger Co-operative at Shawano on their annual tour paid for from State Association funds. Left to right in the picture: Front Row: Louis M. Sasman, State Adviser; Jim Gropp, State Treasurer; Herman Boettcher, State Vice President, Section II; George Ruppel, Gen. Mgr. Consolidated Badger Co-operative; Wm. Lundberg, Reporter; C. H. Bonsack, Exec. Secy.-Treasurer. Second Row: Roger Christy, Chaplain; Howard Huschka, Sentinel; David Narloch, Vice President, Section IV; Gary Emmel, President Shawano Chapter.



Care of operation and in-service teacher education workshop on the care, adjustment and operation of a forage harvester at the Pennsylvania State University conducted by A. H. Hollenberg, U. S. Office of Education. (Photo by F. Anthony)



Mr. James E. Gorman, Managing Director Retail Merchants Division, Florida Chamber of Commerce, Jacksonville, presenting Robert McAteer, a representative of the Ocala chapter, with the State Winning Plaque and \$40 in the Chapter Contest. Second and third place winners are South Dade at Homestead, and Live Oak-Williams.

## Stories in Pictures



Sincere, constructive and systematic criticisms concerning the student teacher's progress during the student teaching period is a must if we are to train capable young men for the profession. Here, student teachers Ober J. Anderson (left) and Eugene Seymour (right), Iowa State College, confer with supervising instructor, John A. Scott, Sumner, Iowa.