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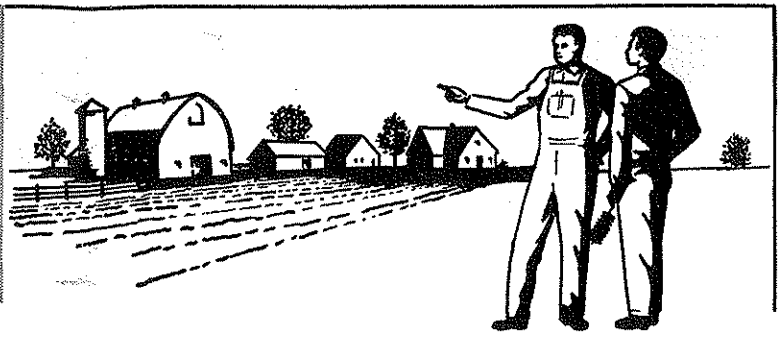
NUMBER 12



Picture legend, page 268

*Featuring*—Improving the Quality  
of Farming Programs  
also—Guidance

# 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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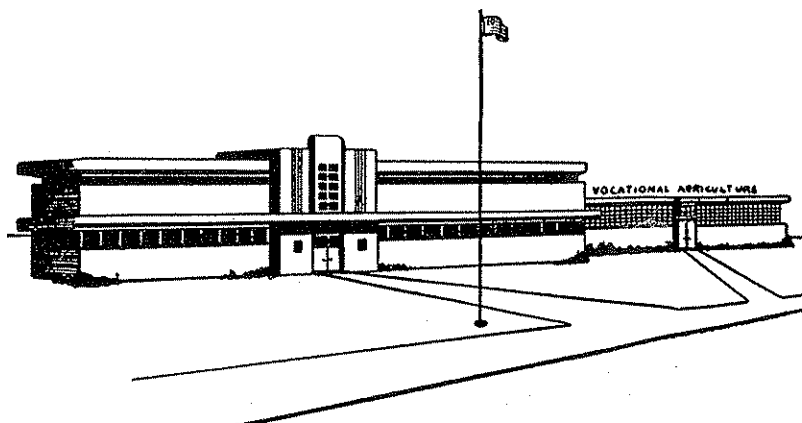
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# Editorials

## Guest Editorials

### Meeting the Challenge of Change

ELVIN DOWNS, State Supervisor of Agricultural Education, Salt Lake City, Utah

To attend the annual American Vocational Association convention in Kansas City last December was a stimulating and rewarding experience. My faith in the role of vocational agriculture for the future was increased. I left the convention with a firm conviction that agriculture is changing—it isn't dying, as some would lead us to believe.

We must remember that farming is only a part of agriculture. It takes only a few men to make up the crew of a modern jet airliner, but behind each crewman are many specialists, mechanics, and factory workers. As the number of farmers and ranchers decrease over the years, we will see an ever increasing number employed to serve and service him. Studies indicate that vocational agriculture training at the high school level does much to equip young men for many of these jobs.

Teachers of vocational agriculture must accept with deep concern the challenge of preparing young men for agricultural competency both in farming and in related fields. Our teaching base must be wide if we are to provide a challenging program for young men with an interest in agriculture. This philosophy does not call for a departure from the original objectives and purposes of vocational agriculture, nor does it call for a major overhaul of the vocational agriculture course of study. If present courses of study are designed to meet the needs of local farmers, and if effective teaching involving the four step procedure is used, I have little fear but what this program will meet the educational needs of those entering agricultural fields closely related to farming.

I offer the following suggestions that may strengthen vocational agriculture departments and assist teachers in "Meeting the Challenge of Change."

#### 1. *Familiarize Yourself with Agricultural Opportunities*

We must be specific in telling of job opportunities both in farming and in related fields. As teachers, we must help our administrators and counselors to see and appreciate the true field of agriculture with its accompanying opportunities. Teachers must assemble a current file of job opportunities in the field of agriculture. They must share it with the school counselor. It must be a team approach. The teacher must assume his rightful role as a counselor. He has a beautiful

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### Emphasis Correctly Placed

JIM HANNEMANN, Vo-Ag Instructor, Creighton, Nebraska

Are we placing enough emphasis on crop production projects in our supervised farming program? In checking the preliminary SFP reports of 1959-60 in Nebraska there was a total of 6329 livestock projects and 1530 crop projects. This is a ratio of approximately 4 to 1. It is well known that the largest percentage of income in the state is from livestock. However, grain must be grown to feed this livestock; otherwise, the student will have to purchase the feed from another source to feed his livestock. Why shouldn't we encourage the student to grow the grain himself?

The freshman agriculture student has always been confronted with the typical starting SFP production project of one sow and litter. This type of project is as out of date in this modern era of agriculture as would be raising colts to furnish power on the farm. The incoming freshman, his mind easily influenced at this age, notices that the FFA members who have livestock projects seem to receive all the honors and recognition. If the older student shows his livestock at the county and state fairs, he receives ribbons, trophies, and plaques and has his name and picture published in the paper. The student who enters a crop project in competition with the other students only receives a ribbon. The beginning student is impressed by honors, and he starts to set his goals for the coming years. He may understand that the show animals do not show a profit every year but to receive recognition at his age may seem a bit more important. Therefore, can we as agriculture instructors be surprised if all freshman decide to have livestock projects their first year in FFA?

The student who decides to have a crop project is generally pushed into the background. He is told he is doing a good job and that is usually as much recognition as he receives.

There are numerous opportunities for a student who has selected a crop project to show his project in competition with other students. However, this competition is usually based on the appearance of the finished product. An example from our local chapter will serve as an illustration. Two students took bin samples of oats for their entries in the county fair. One student hand picked his sample. The other student ran it from pail to pail a few times and entered it in the fair. The boy who hand picked his sample placed in the blue ribbon class while the

(Continued on page 268)



## Meeting the Challenge . . .

opportunity as he offers instruction on the farm throughout the year. The true story of agriculture must be told to counselor groups. We must help counselors to develop a speaking acquaintance with this large area of job opportunities that is too often overlooked.

### 2. *Develop Strong Supervised Programs*

The supervised farming program has always been the heart of vocational agriculture. It must remain that if we are to continue the development of farmers and rural leaders through the tested procedures of vocational education. There is a constant threat to minimize the supervisory efforts of teachers, to forego the field trip, and to reduce teaching to the four walls of the classroom.

Parents have spoken aloud their feelings as to the worth of the supervisory visit. It rates very high in their opinion. Studies indicate that employers in the related agricultural fields place considerable emphasis on the supervisory part of vocational agriculture. The personal contact on the farm, involving boy and parent, has done much in developing wholesome attitudes and understandings. It has built confidence in the boy and has strengthened teacher-boy relationships.

The supervised work on the small farm or even the city lot offers the same rewarding outcomes. The emphasis given the supervisory programs by the teachers determines directly the values derived from supervised practice. Teachers! This is the part of your program that has made vocational agriculture. Don't let it slip through your fingers. Plan for more time in the field. In grading students, give greater consideration to the supervised practice of students and less to the work of the classroom.

### 3. *Use Resource People*

Agriculture is big, complex, and ever changing. Few teachers can even stay within the dust of this scientific, modern business. Farming has become highly specialized and will become more so. Teachers cannot hope to keep completely abreast with current information on plant breeding, fertilizer responses, livestock nutrition, soil analysis, weed and insect control, to mention only a few problem areas.

Bring your course of study up to

date. Give your students information hot off the 1962 griddle. There is no disgrace in recognizing that you don't have all the answers. There is disgrace, however, if you don't help your students to find the correct answers to current agricultural problems. Local resource people can assist you greatly.

As you introduce a new unit in tractor operation and maintenance, review your objectives with your tractor people. Invite them to demonstrate and discuss new features. Any wise tractor representative will avoid commercialism if you tell him what you want him to do. Your local farm credit representative is always anxious to help you, as is the county A.S.C. manager, the commercial feeder, the fertilizer agent or the agronomist. There must always be planning which precedes the use of resource personnel. Outline your objectives, tell them what you want done, and evaluate their efforts at the conclusion of the instructional unit.

This practice, if used wisely and without being overdone, can bring instruction up to the level of 1962. The success of this practice depends upon the teacher's ability to organize and supervise the work of special teachers.

### 4. *Assist the Part-Time Farmer*

The change in agriculture has created many part-time farmers in our state and nation. Approximately 60 per cent of the farmers in Utah are classified as part-time farmers. Many of them are young men just getting a good start in farming. It is one of the most common plans for acquiring land and for growing into full-time farming. These men need help. Their production is limited, and in many cases production costs are too high. These men need sound advice in the use of farm credit. Machinery and equipment costs need to be reduced in most cases. There is need for improvement in marketing the produce from these part-time farms. As agricultural leaders, we need to give effective leadership in enrolling this group into young and adult farmer classes. Their problems are many; they need help if they are to move into full-time farming with an adequate farm income.

### *Conclusion*

Our job in vocational agriculture was clearly stated with the passage of the Smith-Hughes Act in 1917.

With the broadened base of agriculture today, the role of the vocational agriculture teacher is even more demanding of effective teaching and competent leadership. Yes, vocational agriculture teachers, you can look with optimism as you face the challenge of change. □

## The Cover Picture

The South Carolina Vocational Agriculture Teachers' Association has added a new service. Clemson College Agricultural Education senior, George H. Durham, Jr., of Piedmont, South Carolina, is shown receiving a check representing the first loan granted by the SCVATA. Making the presentation is William C. Bowen, on the right, associate professor of agricultural education and secretary-treasurer of SCVATA. Others from the left are Dr. Lowery H. Davis, Head of the Clemson College Department of Agricultural Education and Mr. D. R. Chastain, vocational agriculture teacher at Palmetto High School and chairman of the Association's collegiate loan fund.

The newly established loan fund provides financial assistance to South Carolina members of the Future Farmers of America seeking a college education. Scholarship is also a major consideration in making loans. □

## Emphasis Correctly Placed

other youngster received a white ribbon, because it wasn't clean. In checking the records of the two boys, the student with the blue ribbon oats lost money while the student with the white ribbon oats showed a profit on his crop project. Be that as it may, grain shows evaluate the sample on the basis of weight, physical appearance and cleanliness rather than on the type of management program which produced that sample.

A few organizations are aware of this undesirable type of show and have taken steps to recognize the management program in judging. They are recognizing the student who has done the most efficient type of management program according to the type of soil, fertility, land value and on the basis of his finished product. A few judges realize that a farmer has to farm in accordance with the type of soil and moisture conditions which he has at hand and that management will vary from area to area

just as fertility will vary from area to area. These basic facts are what the student should learn.

The Sioux City Chamber of Commerce has initiated a new idea in crop shows for FFA and 4-H members. The final placing is based on the management program (50%), grain exhibit (45%), and showmanship (5%). We know that the ideal ear weight of corn on properly managed soil is about ½ pound. How would a ten ear-sample of ½ pound ears compare with the larger ears that are winning our crop shows today? It would appear that the larger ears came from a well-managed farm and

the smaller ears from a run-down poorly-managed farm. Is this what we wish to teach our FFA students?

The Sioux-Land-Crop-Show places the proper emphasis where it belongs—on the management program. A student can raise 50 bushels of corn on poor land and do a much better job of management than a student who has produced 100 bushels of corn on good soil. The entry sheet requires information on the amount of fertilizer applied, type of tillage, and yield per acre. The judges assemble this information and with a physical sample and the official grain grade on a portion of the sample, they place the

entry in the blue, red, or white ribbon group.

Today's successful farmers are concerned with the cost of production. Our problem as leaders and teachers is how we may make the high school freshman and upper classmen aware of this problem. Does the solution lie in giving awards for the appearance of the product or in giving awards based on the underlying factors governing management in producing that product? The type of competition which takes into consideration criteria other than the looks of the product would seem to have the most merit and educational value. □

## Improving Quality in Supervised Farming

HAROLD BINKLEY, Teacher Education, University of Kentucky, Lexington



Supervised farming is the real fabric of a program of farmer training. Quality in supervised farming is an important aspect of quality teaching. Teachers of vocational agriculture can not be happy in their work unless they feel the importance of supervised farming and push for quality in it. Quality in supervised farming is a must if vocational agriculture is to meet the increasing need for greater competence in farming with high-school boys, young farmers, and adult farmers.

We have not come close to providing the education farmers and prospective farmers really need. Unless we are willing to face these facts, there isn't much point in talking about improving quality in supervised farming. Our test of this decade is wrapped up in how deeply we believe in supervised farming. "Where there is no vision the people perish." Where there is vision there is life, growth, and happiness. We must have vision in our program of farmer training. A challenging job is before us. The challenge requires "decisive action" on the part of those in the profession and on the part of the students.

We must have more than routine action on the part of our learners; we must have thoughtful, purposeful action. We must have more than "know how"; we must have "know why." Ask yourself: What things (acts

or actions) make the difference between good and poor supervised farming? There is a great gulf between the two. Let us look at seven points which have to do with supervised farming:

1. Selecting the individuals to enroll in our classes
2. Developing programs of supervised farming
3. Production goals and standards
4. Getting decisions made regarding improved practices
5. On-farm supervision
6. Keeping and using records
7. Securing understanding and cooperation of other school people.

### Selecting the Individuals to Enroll

In the years ahead we will need fewer farmers, not more. These farmers will need to be more efficient. This means training fewer people in farming but training them better.

Teachers must give careful consideration to: What individuals to enroll in their classes—what high-school boys, young farmers, adult farmers. Only those individuals who want to take vo-ag and who can have adequate programs of supervised farming should be enrolled. These are the individuals who can make progress in a program of farmer training. Careful selection of the individuals to enroll in vocational agriculture will go far to prevent teachers from be-

coming frustrated. Problems loom large, complicated, threatening, and unsolvable when students are enrolled in classes of vocational agriculture who do not desire or who cannot have satisfactory programs of supervised farming. For teachers to select and enroll only those students who can have adequate programs of supervised farming will do much to improve the quality of supervised farming.

### Developing Programs of Supervised Farming

The teacher must assume responsibility for guiding his students to develop challenging farming programs. The teacher's concept of the importance of supervised farming and his ability to develop good programs of supervised farming are measures of his ability to have successful programs of vocational education in agriculture.

The primary function of farming programs is to contribute to developing proficiency in farming in those who have the programs.

*For high-school boys*—the farming program provides an opportunity to learn farming and to move toward establishment in farming.

*For young farmers*—the program is a means of moving toward establishment in farming as well as learning agriculture.

For adult farmers—the farming operation is the basis of livelihood; efficiency in the farming business is necessary for success.

Vocational agriculture is designed to train for proficiency in farming those persons who desire such proficiency and who are willing to and can do what it takes to acquire it.

In developing a farming program with each student, the teacher should keep in mind, in addition to the primary purpose, these important things:

1. *Practice is essential to learning.* Participation in the agriculture one would learn is necessary to his learning it. One becomes an efficient producer by carrying out improved practices understandingly and this makes for efficient production.
2. *Farming programs should be planned on a long range basis.* The family farm will not disappear, but the size will become larger. It must be operated as a business.
3. *Farming programs must be planned for high income.* There will be low-income farmers who will and should be leaving the farms. They will need help at times like the present. But we should not forget that those who are to stay in farming represent our greatest challenge and opportunity.

There are several fundamental things which teachers must do in guiding students to develop their farming programs if they are to improve the quality of the programs.

In guiding students, *the teacher must make a careful analysis* of the home farm situation of each farm from which a student comes, whether he be a high school boy, young farmer, or adult farmer. *The teacher must decide what factors are limiting success* in the farming and decide how these factors may be corrected. *The teacher must decide on the farming program* (or farming operation) that he believes the boy, young farmer, or adult farmer should probably have in his particular situation. *The teacher must make a decision* (and in the decision there must be vision) if he is to *intelligently guide the student* in improving his farming program or farming operation. *The teacher must visualize where he should like this individual to be in farming* three, four, or five years hence. The lack of a sound decision pertaining to this matter has prevented teachers from

assisting in the development of many good farming operations. The failure on the part of the teacher to make a decision leaves a question and doubt, which fails to result in action.

Too often, teachers do not think big enough. Here is a boy or a young man who should have a dairy project or enterprise, for example if he should have dairy animals, then why start off with one dairy heifer? Why not two or more bred heifers? The same is true in beef, sheep, and hogs. The banker or secretary of the PCA had much rather lend a boy or young man enough money to buy several good animals than just one. The animals should be good animals—efficient converters of feed into milk, meat, or eggs. *The teacher must aspire* to this level in number of head and quality of livestock. He must feel that he can get this boy, young farmer, or adult farmer to start off with a certain kind of a program or to do this or do that. And he must visualize where he expects to have him four or five years from now.

#### Production Goals and Standards

Teachers of agriculture should guide their students to set challenging, realistic production goals (departmental and individual) which require the carrying out of significant improved practices.

Production goals may be set in terms of the product to be secured in the enterprise, such as pounds of lamb per ewe or pounds of milk per cow. Also goals may be set in terms of results while carrying out the enterprise such as weight of lambs at 30, 60, and 90 days or pounds of milk the 2nd, 3rd, and 4th month of lactation. This is a point which has been overlooked far too long. For students to set intermediate goals (realistic ones) in livestock enterprises, to check on attainment at specified times, and to relate the results to the improved practices being used would do much to improve the quality of supervised farming. Visualize the quality wrapped up in this: *A discovery* on the part of the student that the lambs are not growing out as they should, followed by *concern* and *finding out "why,"* and *doing something about it.*

Production goals and production standards have to do with performance—production in animals and crops —“to producing a better product at less cost.” Performance testing and selective breeding in livestock and high crop yields, as well as scope

of operation, are important to success. Teachers must keep them foremost in their thinking as they develop and inspire their students in a program of farmer training.

#### Getting Decisions Made Regarding Improved Practices

There must be improvement in the teaching of improved practices and in getting the practices planned by the students. The farming programs of the students must be given proper consideration in the classroom teaching. Only by doing so should we expect the “theory and the practice” to be experienced together, which must happen if the learning is to be functional and lasting. The teaching will not likely contribute much to modern farmer training unless the teaching and learning are carried along purposefully, intellectually, and beyond the discussion stage. When teaching an improved practice, the teacher must approach the teaching with this thought clearly in mind: That he expects and has reason to believe that he can and will get a number of the students to use the practice—whether it be with a high-school, young farmer, or adult-farmer class.

The matter of planning a practice which is to be carried out—and there is no need to plan unless it is to be carried out—needs serious consideration. There should be quality in the planning. A student does not engage in a mental activity worthy of the name when he merely copies a list of improved practices. A good plan for carrying out an improved practice states clearly and definitely how the practice is to be carried out. One learns to plan or manage in farming by planning and managing in farming. Planning and managing involves mental activity—mental activity in solving those kinds of life problems. Students of vocational agriculture must become capable of engaging in those kinds of activity if they are to become proficient in farming. If mental activity is left out of the planning, if there is not much decision-making, the teacher should not expect much desirable learning to take place.

Immediately after dealing with an improved practice with a class and arriving at a good sound group decision, is the best time to guide students to use the decision in carrying out their farming programs and to put it into a plan. The “iron will never be hotter” than at this point; this is the time to get commitment

and to nail the practice down in the plan.

#### Supervision on the Farm

There must be improvement in the quality of supervision. Teachers should never assume that once the student—high-school boy, young farmer, or adult farmer—has a clear and definite plan, he can “take it from there.” Students must be supervised to be sure that they practice—that they get the right kind of practice in the right amount, that they practice correctly, and that they understand what they are doing. Through supervision, teachers should be able to increase the quality of performance on the part of their students. And when teachers do, they can be assured that their students and other people will recognize the improvement in quality of on-farm supervision.

A supervisory visit that is planned has more quality in it than one that is not planned. A supervisory visit that is well planned may do five to ten times as much good as a supervisory visit not planned or poorly planned. Time is limited and time is important. Therefore, time should be spent on the things that are relatively most worthwhile.

#### Keeping and Using Records

Record keeping is an essential requirement in any successful business. It is a part of modern farming. One of the improved farming practices on which competitive advantages are either won or lost is the keeping of good records.

It is not likely that good records will be kept by students, or that we can justify having the students keep them, unless *use is made of the records in teaching* and in analyzing the outcomes of farming programs or farming operations. We say that departmental records—records of the students—should be used in teaching farm management. Instead of using the records of the department in arriving at principles in farm management, principles which can be abstracted from concrete realistic records meaningful to the students, the teaching of farm management in many departments is a formalized, bookish and dry operation. There are teachers who have made *excellent use* of their departmental records in teaching. It is a rewarding and satisfying experience. To get good records kept and to use them in all teaching would improve the quality of records and thereby improve the quality in supervised farming. □

#### Securing Understanding and Cooperation of Other School People

We have been discussing improving quality in supervised farming—improving quality in the fabric of our profession—that of training for proficiency in farming through farming programs. Securing understanding and cooperation of other school people is fundamental and basic to our successful operation of a program of farmer training. Teachers must secure the understanding of other school people of the purpose of supervised farming and have their cooperation in providing for it.

Too many teachers in the past have looked upon securing understanding and cooperation (an aspect of public relations) as a defensive operation rather than a living, dynamic one. If vocational agriculture is to fulfill its function, high-school guidance counselors, school administrators, and other school people must understand the program in all its aspects. They must come to understand, if we are to have their cooperation in a program of farmer training. It presents a challenge. Teachers must move on it (out of genuine concern) objectively, enthusiastically, consistently, and in a friendly manner. □

## Planning for the Summer

RAY M. McGEE, Vo-Ag Instructor, Jemison, Alabama

A well planned program of work for the summer will provide a basis for an effective instructional program to high school boys, young farmers, and adults on their farms.

Summer time is also time to visit prospective students and their parents, train FFA officers, secure and file new reference materials, revise long time program, prepare course calendars, make lesson plans, and make plans for the farm shop. The good teacher will also secure needed equipment, supplies, order magazines and books, and will plan for the use of maintenance funds and all FFA funds available. In order for a vocational agriculture teacher to perform these and many other necessary duties, it is absolutely necessary for him to do a good job of planning his summer activities.

The summer program of work should consist of a statement of objectives or goals and a detailed list

of daily or weekly activities in order to carry out these goals.

Some of the objectives that I think a vocational agriculture teacher should include in his summer program of work are:

1. Spend one hour each day at a definite time in the office doing something useful but mainly establishing a set time for visitors.
2. Make final arrangements with the boys who are to attend the State FFA Convention. This should be completed the week before the Convention.
3. Visit high school boys, young farmers, and adult farmers at least once and more if necessary.
4. Visit all prospective vocational agriculture students and their parents.
5. Revise the annual and long time programs of work.
6. Revise the course calendar for each class taught.
7. Prepare as many lesson plans for jobs to be taught as possible or as many as one feels necessary for the following year.
8. Revise lesson plans that have been used during the previous year bringing them up to date.
9. Order reference materials for class use and get it properly filed.
10. Hold regular FFA Chapter meetings and conduct an officer training school for the newly elected officers.
11. Locate and place calves for the fat calf show next spring.
12. Improve the shop facilities as much as possible by adding new equipment, reconditioning old equipment, building new cabinets, relocating and improving shop areas, etc.
13. Hold as many adult class meetings as possible throughout the summer.

14. Take a vacation.
15. Plan for professional improvement.

Since a summer program of work must be planned ahead of time, there will be several changes. In order to cope with these changes, a teacher should use the above program merely

as a guide. It would be wise to make out a weekly itinerary, listing daily activities, and mail a copy to all concerned having it arrive in their offices on Monday morning of the week involved.

By following the above method of reporting summer activities, our pro-

gram of vocational agriculture will be strengthened in the community, county, state, and nation. I am of the opinion that all teachers do much more work and good than the average person realizes, so it is our duty to inform them. Few ways will be found that are better than adequate planning and reporting. □

## Farm Record Analyses as Source of Farm Management Guides

WILLIAM E. SAUPE, Instructor, Agricultural Economics, Iowa State University, Ames



Farm record keeping and record analysis were important parts of the Institutional On-Farm Training Program provided for veterans of the Korean conflict under Public Law 550 in two northwest Iowa schools. The farm records kept by the trainees enrolled in the Sheldon and Sibley, Iowa, veterans farm training classes during 1959 and 1960 were analyzed as part of an Agricultural Education thesis completed at Iowa State University during fall quarter, 1961. The writer, who conducted the study, was the instructor of the Sheldon veterans farm training class, and Gene Alexander, whose farm record summaries were made available to him, was the instructor of the Sibley veterans farm training class during the period included in the study.

The problem in this study was to identify relationships found in the analyses of the farm records kept by the trainees in the two veterans farm classes that could be used as management guides. Data were collected by the investigator from information contained in the farm record books kept by the trainees. These data were treated statistically to obtain means for each variable and to find the coefficients of correlation between the variables. It was assumed that the records kept by the trainees accurately reflected each phase of their farm business activities, and that each farmer attempted to maximize his net farm income.

At the time of this study, the members of these two veterans farm classes were all beginning tenant farmers. As a trainee, each received a monthly training allowance from the Veterans Administration. Generally the members

had not entered the training program primarily because of an interest in farm record keeping and record analysis. In this way, the group was contrasted sharply with the groups whose farm records were included in the farm record analyses of the Iowa Farm Business Associations and the Farm and Home Development Program.

The records of forty-one trainees were included in the summary for each year, 1959 and 1960. However, since there was a large turnover in trainees between the two years, the sample was not made up of the same men. For this reason, no statistical comparisons were made between the two years.

The variables included in the study were grouped into seven areas: (1) measures of financial progress, (2) sources of gross profits, (3) crop production efficiency, (4) livestock production efficiency, (5) labor and machinery efficiency, (6) scope of operations, and (7) personal information concerning the operator. Data were processed by the Statistical Laboratory at Iowa State University.

The farmers included in the study were similar in military service status, age bracket, years of farming experience, location in the state, in nearness to available markets, and in tenant status. The wide variations in operator's net farm income had to be explained, therefore, by the differences among individual operators.

The findings of the study indicated that operator's net farm income and operator's labor and management returns were nearly identical measures of annual financial achievement. Highly significant correlations occurred be-

tween operator's gross profits and operator's net farm income in both 1959 and 1960. However, some farmers fell into net income brackets that did not correspond to their gross profits bracket.

Operator's gross profits were highly correlated with four other measures of size of business, during both years; these were (1) total value of capital managed, (2) productive man work units, (3) total acres, and (4) crop acres. Eighty-eight percent of the total acres were in crop acres.

Operator's net farm income was highly correlated with several measures of volume of business, but with only a few measures of efficiency of business. Highly significant correlations were observed both years between operator's net farm income and operator's gross profits, gross profits from crops, gross profits from livestock, and total value of capital managed. Crop acres and total acres were significantly correlated with operator's net farm income for 1959. The number of cattle fed and the productive man work units completed were significantly correlated in 1960. In 1959, there was also a high correlation between high operator's net farm income and low power and equipment expense per crop acre.

Two measures of livestock efficiency, livestock returns per \$100 feed fed and pigs weaned per litter, were highly correlated with operator's net farm income in 1959. Corn yield per acre averaged about 2.5 times the soybean yield per acre for the two years.

There was no correlation between years of school completed and opera-





# Vocational Agriculture and Success in College

FRED J. PUMPER and GEORGE W. SLEDGE<sup>1</sup>



## More of Our Youth Are College Bound

More of our youth are attending college than ever before. In 1957, 34 percent of all male Wisconsin high school graduates planned to attend college.<sup>2</sup> Of the students ranking in the top 30 percent of their graduating classes, 70 percent of the boys planned to attend. Approximately 20 percent of the seniors whose fathers were farming were college bound.

Preliminary census data for the United States<sup>3</sup> revealed that 47 percent of the high school seniors—girls and boys—in October of 1959 intended to enter college in 1960, and another 20 percent were undecided.

More urban students planned to attend college than did rural nonfarm, and rural farm youth in the United States. Actually, 55 percent of the urban males planned to attend, compared to 44.4 percent of the rural nonfarm males, and 34.4 percent of the rural farm males.

These figures concisely reveal that an increasingly larger number of our high school students will be attending college in the years ahead if plans are realized. What will be the probable success in college for farm youth? Will their high school background and educational experiences be adequate for college success? This article will attempt to reflect on these questions as they apply to students continuing their education in a College of Agriculture.

## Questions Frequently Raised

Farm and vocational agriculture students frequently raise the question as to how well they might expect to

achieve in college. Many people have asked how well farm and vocational agriculture students do in college in comparison to the nonfarm and non-agricultural students. What types of curriculum should students follow in high school if they plan to enter college? Will vocational agriculture help or hinder the student planning to attend a College of Agriculture? There is an increasing volume of research which provides information about these questions.

As teachers, principals, superintendents, counselors, and as parents, we must understand these questions, consider the evidence and implications, and draw sound conclusions if we are to effectively help counsel youth about educational and occupational opportunities in modern agriculture. It is essential that our high school curriculums fulfill the needs of all students—those planning to attend college and those who will not be attending. Complicated as this responsibility may be, this obligation of public schools cannot and should not be avoided.

## Research is Providing Evidence

Information is already available to help answer part of the questions which have been raised. It is not the intent of this article to make an exhaustive review of research. Certain pertinent studies and presentations do bear directly on the subject under discussion.

For example, Fay<sup>4</sup> in 1932 examined the records of 526 freshmen students in agriculture at the University of Wisconsin and concluded that a greater percent of boys entering the college of Agriculture after having studied vocational agriculture in high school were successful in their first year of college work than boys who entered with an all-academic high school preparation, or those who had included

nonagricultural vocational studies in their high school courses.

In a recent publication by Bender of Ohio,<sup>5</sup> concerned with the college success of 400 students with high school vocational agriculture and 400 without the program, it was noted that 50 percent of the vocational students were in the top one-third of their high school graduating classes compared to 35 percent of the nonvocational students.

When the students were compared in college persistence, the vocational agriculture students were more persistent in college than any other group.<sup>6</sup> In scholastic achievement, the vocational agriculture students did as well as students without such training, as measured by mean cumulative point-hour ratio at the end of the twelfth quarter.

Tom, in a recent *Agricultural Education Magazine* article,<sup>7</sup> prepared an intensive review of 32 studies pertaining to college success of former vocational agriculture students. For studies conducted between 1929 and 1958, in 53.8 percent of the findings the vocational group *did better than* the nonvocational group; in 36.6 percent, the vocational group *did as well as* the nonvocational group; in only 9.6 percent, the vocational group *did poorer than* the nonvocational group.

Considering this research, a special study was initiated in the fall of 1960 at the University of Wisconsin to determine how former vocational agriculture students perform in the College of Agriculture in comparison to nonvocational students.

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<sup>2</sup>Coordinating Committee for Higher Education in Wisconsin, "Higher Education," Semi-Annual Report, Joint Staff, Madison 2, Wisconsin, June, 1959.

<sup>3</sup>Agricultural Marketing Service and the Bureau of the Census, "Farm Population" Series Census—AMS p. 27, No. 27, Washington, D. C., April 29, 1960.

<sup>4</sup>Ivan Glen Fay, "High School Preparation and College Success." Thesis, M.S., University of Wisconsin, Madison, Wisconsin. 1932. p. 25.

<sup>5</sup>Bender, Ralph E., *College Success With and Without Vocational Agriculture in High School*, Department of Agricultural Education, The Ohio State University, Columbus, Ohio, 1961, p. 2.

<sup>6</sup>*Ibid.*, p. 8.

<sup>7</sup>Tom, Frederick K. T., "College Success of Former Students of Vocational Agriculture," *The Agricultural Education Magazine*, Interstate Printers and Publishers, Inc., Danville, Ill., 32:174, February, 1960.

### Wisconsin College of Agriculture Student Success Study<sup>8</sup>

Over the five-year period of 1952-56, 737 students enrolled in the University of Wisconsin College of Agriculture as new freshmen and were included in the research study. Data, obtained from the office of the Associate Dean of Instruction and the University registrar's records, were analyzed in the Numerical Analysis Laboratory. Students were classified according to high school rank in their graduating class into three ability groups.

Fifty-five and eight-tenths percent of the students were from farms, and 38.4 percent were nonfarm students; residence was unknown for 5.8 percent of the students. Almost 53 percent of the students did not have any high school vocational agriculture, and 47 percent had from one to four years of vocational agriculture.

Of the farm students, 73.9 percent had vocational agriculture, compared to 12.3 percent of the nonfarm students and 20.9 percent of students with unknown residence. Of the vocational agriculture students, 304, or 87.3 percent, were from the farm and 10.1 percent were nonfarm students. These descriptive data are computed from information presented in Figure 1. Other data in Figure 1 reveal that students with farm residence having vocational agriculture in high school graduated in a higher percent-

<sup>8</sup>Fred John Pumper, "High School Background and Student Success in the College of Agriculture at the University of Wisconsin." Thesis, M.S., University of Wisconsin, Madison, Wisconsin, 1961. 146 pp.

age from the College of Agriculture than other classification groups. This is also substantiated by data in Table II.

Of the total group of students, 41 percent of the students had graduated from the College of Agriculture and 38 students were still working toward a baccalaureate degree in agriculture. This percentage graduating compares closely with findings from a study undertaken by Young.<sup>9</sup> He found that 40 percent of the students graduated from the University of Wisconsin after completing eight semesters.

Of 73 students who transferred from the College of Agriculture to some college within the University of Wisconsin, 35 had graduated (47.9 percent) and 16 students were still working toward a degree.

Of the total group of freshmen, 32.3 percent did not become sophomores, 18.2 percent of the sophomores did not become juniors, 8.3 percent of the juniors did not become seniors, and 9.1 percent of the seniors did not graduate from the College of Agriculture.

Thirty-one and six-tenths percent of the total group of students without vocational agriculture graduated from the College of Agriculture as compared to 51.4 percent of the vocational agriculture students. Thirty-eight and one-tenth percent of the students with only one year of vocational agriculture graduated as compared to 59.4 percent with four years of agriculture in high school.

<sup>9</sup>Young, F. C., *Progress Patterns for Counseling*, Mimeo. Pub., University of Wisconsin, Madison, Wisconsin, January, 1961.

Sixty-seven percent of the students in the College of Agriculture had been in the top half of their high school graduating class. When ability levels were held constant and residence was not considered, 64.7 percent of the vocational agriculture students with high ability graduated as compared to 42.2 percent of the non-vocational agriculture students. Over 11 percent more vocational agriculture students graduated at the medium and low ability levels than did the nonvocational agriculture students in the same ability levels.

Data in Table I relate vocational agriculture, residence, and ability level to graduation from the College of Agriculture. Sixty-six and one-tenth percent of the high ability vocational agriculture students from farms graduated as compared to 47.2 percent of the high ability nonvocational agricultural students from farms. In general, the data reveal that the vocational agriculture and farm students graduated in larger percentages within the various ability levels.

When classifying students by residence, 51 percent of the farm students graduated as compared to 29.7 percent of the nonfarm students from the College of Agriculture. Of the farm students with vocational agriculture 53.9 percent graduated as compared to 37.1 percent of the nonfarm students with vocational agriculture.

The achievement of students as they progressed through the College of Agriculture in terms of grade-point averages were: freshman—2.06, sophomore—2.38, junior—2.51, senior—2.59, and students at time of graduation—2.68. The cumulative grade-point average of students went up with an increasing number of years of vocational agriculture.

Grade point averages at graduation are presented in Table II.

There were 24.8 percent of the farm students who had above a 3.00 grade-point average at graduation as compared to 10.7 percent of the nonfarm students.

When achievement in selected courses was considered, it was found that at the 5 percent level of significance, using Chi square for analysis, the vocational agriculture students achieved at a higher level in Agronomy 1, Animal Husbandry 1, Chemistry 1a, and Chemistry 1b than the non-vocational agricultural students. The farm students achieved at a higher level in Agronomy 1, Animal Husbandry 1, Chemistry 1a, and Chemistry 5 than the nonfarm students.

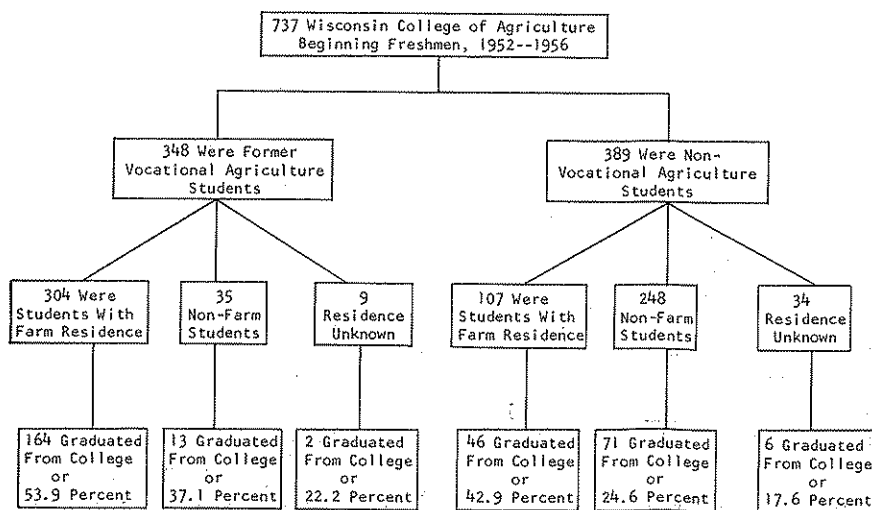


Figure 1. Distribution of 737 new freshmen students who entered the College of Agriculture, classified by vocational agriculture or nonvocational agriculture background and by farm and nonfarm residence.

TABLE I

Vocational Agriculture, Residence, and Ability Level as Related To Graduation from the College of Agriculture

| Group and Number                  | Residence and Number          | Ability Level** | Number* Entered | Number Graduated | Per Cent Graduated Per Group |
|-----------------------------------|-------------------------------|-----------------|-----------------|------------------|------------------------------|
| Vocational Agriculture<br>348     | Farm<br>304                   | High            | 127             | 84               | 66.1                         |
|                                   |                               | Medium          | 123             | 60               | 48.8                         |
|                                   |                               | Low             | 40              | 15               | 37.5                         |
|                                   |                               | Not available   | 14              | 5                | 35.7                         |
|                                   | Non-farm<br>35                | High            | 8               | 3                | 37.5                         |
|                                   |                               | Medium          | 12              | 7                | 58.2                         |
|                                   |                               | Low             | 13              | 3                | 23.1                         |
|                                   |                               | Not available   | 2               | 0                | 0.0                          |
|                                   | Residence Not Available<br>9  | High            | 1               | 1                | 100.0                        |
| Medium                            |                               | 2               | 0               | 0.0              |                              |
| Low                               |                               | 3               | 0               | 0.0              |                              |
| Not available                     |                               | 3               | 1               | 33.3             |                              |
| Non-Vocational Agriculture<br>389 | Farm<br>107                   | High            | 36              | 17               | 47.2                         |
|                                   |                               | Medium          | 39              | 16               | 41.0                         |
|                                   |                               | Low             | 20              | 9                | 45.0                         |
|                                   |                               | Not available   | 12              | 4                | 33.3                         |
|                                   | Non-farm<br>248               | High            | 42              | 17               | 40.5                         |
|                                   |                               | Medium          | 85              | 29               | 34.2                         |
|                                   |                               | Low             | 101             | 18               | 17.8                         |
|                                   |                               | Not available   | 20              | 7                | 35.0                         |
|                                   | Residence Not Available<br>34 | High            | 5               | 1                | 20.0                         |
| Medium                            |                               | 14              | 4               | 28.6             |                              |
| Low                               |                               | 11              | 1               | 9.1              |                              |
| Not available                     |                               | 4               | 0               | 0.0              |                              |
| Total<br>737                      | 737                           | -----           | 737             | 302              | 41.0                         |

\*The students who were still in the College of Agriculture are included in the number which entered, but not in the number who graduated.

\*\*High Ability Student—any student who ranked above the 8th decile in his high school graduating class.

Medium Ability Student—any student who ranked between the 5th and 8th decile in his graduating class.

Low Ability Student—any student who ranked below the 5th decile in his high school graduating class.

TABLE II

Grade Point Average of Vocational Agriculture and Nonvocational Agriculture Students at Graduation from the College of Agriculture

| Grade Point Average * | Non-Vocational Agriculture Students |         | Vocational Agriculture Students |         |
|-----------------------|-------------------------------------|---------|---------------------------------|---------|
|                       | Number                              | Percent | Number                          | Percent |
| 3.00 - 4.00           | 21                                  | 17.1    | 42                              | 23.5    |
| 2.50 - 2.99           | 53                                  | 33.1    | 80                              | 44.7    |
| 2.00 - 2.49           | 48                                  | 39.0    | 56                              | 31.3    |
| below 2.00            | 1                                   | 0.9     | 1                               | 0.6     |
| Total                 | 123                                 | 100.1   | 179                             | 100.1   |

\*A = 4 grade points; B = 3 grade points; C = 2 grade points; D = 1 grade point.

There was no significant difference in the achievement of the agricultural and nonvocational agricultural and of farm and nonfarm students in the following selected courses: Agricultural Economics 4, Economics 1 or 1a,

American History, Bacteriology 1, English 1a, and English 1b.

Approximately five percent of the nonvocational agricultural students were elected to membership in Alpha Zeta (National Honorary Agricultural Fraternity) as compared to 10.9 percent of the vocational agriculture students. Ten of the 11 students elected to Phi Kappa Phi were vocational agriculture students.

What Does This Say to Our Profession?

First, we might well conclude from the findings that: (1) students in higher ability levels generally graduate from college in higher percentages than students from lower ability levels, (2) vocational agriculture students with farm residential background are more frequently successful in graduating from the College of Agriculture than are students without this background when ability levels are held constant, (3) consequently the ability of students, their residence, and vocational agriculture were all related to student success in the College of Agriculture, (4) the Freshman year of college appears to be the most crucial, and (5) success in college is probably the result of a combination of factors rather than the effect of a single factor.

Secondly, vocational agriculture appears to help the student planning to attend a College of Agriculture, particularly in certain course areas. More information is needed to more adequately determine how well vocational agriculture students achieve in other colleges of the University. Additional research is needed to determine the effect of other factors such as extracurricular activities and the quality of the high school educational program regardless of the courses taken on the academic success of students continuing into college. Level of interest and degree of motivation are also factors which need additional research. Guidance of students is also exceedingly important if they are to be encouraged to make the most of their abilities and opportunities.

Thirdly, we must keep in mind, that four units of vocational agriculture in high school represents only 25 percent or less of the student's total high school curriculum. Obviously, we must strive to provide all students with the best functional and fundamental education possible. The studies cited point out that strong vocational agriculture courses can be an



# What Are the Plans of Vocational Agriculture Students?

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"What do you plan to do when you finish?" is a question asked young people many times before they complete high school. Many adults contend that this question is unfair, for they believe young people, high school age, are too immature to make such an important decision. Most would agree with this belief if it were understood to mean that this vocational choice were final. If, however, it is implied that this vocational choice is still tentative then why should not all agree that adults should encourage young people to start thinking about their life's work early in life. For after all, isn't the child starting to make a vocational choice when he imitates the cowboy, the policeman or the fireman?

It is assumed by many professional educators that the student who enrolls in vocational education in high school has decided to enter the field of work in which he is receiving instruction. It is further believed by certain educators that this is not vocational education unless the enrollee is committed to enter this specific vocation. With the great increase in the number of different vocations open to students, and the almost universal increase in requirements for entry into each vocation, one cannot help but wonder if there should be a change in the general function of "vocational education" for the high school student. For example, should it be expected that all who enroll in vocational agriculture in high school have decided to become farmers or to enter occupations directly related to agriculture, or should the courses be more or less open to the student who is not necessarily committed to this field for his life's work, but who thinks he may be interested in this area? In short, should it be exploratory education for some students and job preparation for others?

In the spring semester 1961 a study was conducted to gain more insight into the actual vocational and educational plans of students enrolled in vocational agriculture. The sample included 439 freshmen and 385 juniors-seniors in 27 California high schools. These schools were selected from those reported by regional supervisors to have superior programs in vocational agriculture. In addition, the teacher of agriculture had to have been in the school at least three years before his school was asked to participate. At least four schools in each of the six major geographic regions of the state were included in the study. This article deals with the questions asked regarding the vocational interests of the students, the vocations of the fathers, and the immediate plans of the students.

It is quite obvious from Table I that not all students in these vocational agriculture departments planned to enter farming or an agriculturally related occupation. In fact, only about 62 per cent of the freshmen and 54 per cent of the juniors-seniors indicated an intent to enter an agricultural occupation. Of this latter group, a smaller proportion planned to farm, while a larger proportion planned to enter an agricultural industry. The next largest vocational categories were the skilled trades and construction, which were of interest to about 10 per cent of the seniors

and a slightly smaller per cent of the freshmen. The interests of the remaining students were divided among the various occupations with no obvious preference for any one. It is of interest to note that many of these students are obviously using vocational agriculture as preparation for many different kinds of occupations including the professions.

The vocations of the fathers of these students (Table II) also show much diversity of interest. The agriculturally oriented vocations are the single largest group with combined categories of skilled trades and construction second and the business occupations third. It is of interest to note that about one third of these students came from homes where the father was a full time farmer. Undoubtedly others came from part time farms, in which case the father was identified not as a farmer but by his primary occupation. About one fourth of the fathers worked in the skilled trades or in heavy construction. In comparing the vocational choice of students with the vocation of the fathers it will be noted that a considerably larger proportion of boys plan to enter an agricultural occupa-

Table I  
Vocational Choices of Freshmen and Juniors-Seniors  
in Vocational Agriculture

| Vocational Choice        | Freshmen |       | Juniors-Seniors |       | Total |       |
|--------------------------|----------|-------|-----------------|-------|-------|-------|
|                          | No.      | %     | No.             | %     | No.   | %     |
| 1. Farming               | 187      | 42.60 | 110             | 28.57 | 297   | 36.04 |
| 2. Agricultural Industry | 42       | 9.57  | 62              | 16.10 | 104   | 12.62 |
| 3. Veterinarian          | 25       | 5.69  | 14              | 3.64  | 39    | 4.73  |
| 4. Lumber Industry       | 18       | 4.10  | 21              | 5.45  | 39    | 4.73  |
| 5. Skilled Trades        | 30       | 6.83  | 31              | 8.05  | 61    | 7.40  |
| 6. Heavy Construction    | 1        | 0.22  | 9               | 2.34  | 10    | 1.21  |
| 7. Truck Driver          | 6        | 1.37  | 3               | 0.78  | 9     | 1.09  |
| 8. Engineer              | 14       | 3.19  | 10              | 2.60  | 24    | 2.91  |
| 9. Business              | 12       | 2.73  | 12              | 3.12  | 24    | 2.91  |
| 10. Professional Sports  | 10       | 2.28  | 9               | 2.34  | 19    | 2.31  |
| 11. Law Enforcement      | 10       | 2.28  | 15              | 3.90  | 25    | 3.03  |
| 12. Teaching             | 7        | 1.59  | 13              | 3.38  | 20    | 2.43  |
| 13. Medicine             | 5        | 1.14  | —               | —     | 5     | 0.60  |
| 14. Scientist            | 3        | 0.68  | —               | —     | 3     | 0.36  |
| 15. Military Service     | 11       | 2.50  | —               | —     | 11    | 1.33  |
| 16. Miscellaneous        | 10       | 2.28  | 12              | 3.12  | 22    | 2.67  |
| 17. Undecided            | 48       | 10.93 | 64              | 16.62 | 112   | 13.59 |
| TOTAL                    | 439      |       | 385             |       | 824   |       |



Table II  
Vocations of Fathers of Students Enrolled  
in Vocational Agriculture

| Vocation of Father              | Freshmen   |       | Juniors-Seniors |       | Total      |       |
|---------------------------------|------------|-------|-----------------|-------|------------|-------|
|                                 | No.        | %     | No.             | %     | No.        | %     |
| 1. Farming                      | 136        | 30.98 | 129             | 33.50 | 265        | 32.16 |
| 2. Agricultural Industry        | 20         | 4.55  | 21              | 5.45  | 41         | 4.98  |
| 3. Lumber Industry              | 13         | 2.96  | 12              | 3.11  | 25         | 3.03  |
| 4. Skilled Trades               | 83         | 18.91 | 80              | 20.77 | 163        | 19.71 |
| 5. Heavy Construction           | 25         | 5.69  | 14              | 3.63  | 39         | 4.73  |
| 6. Truck Driver                 | 20         | 4.55  | 15              | 3.90  | 35         | 4.24  |
| 7. Engineer                     | 8          | 1.82  | 2               | 0.52  | 10         | 1.21  |
| 8. Business (Sales)             | 36         | 8.20  | 33              | 8.57  | 69         | 8.37  |
| 9. Business<br>(Management)     | 5          | 1.14  | 4               | 1.04  | 9          | 1.09  |
| 10. Law Enforcement             | 8          | 1.82  | 5               | 1.30  | 13         | 1.58  |
| 11. Medicine                    | 3          | 0.68  | 6               | 1.56  | 9          | 1.09  |
| 12. Service Station<br>Operator | 10         | 2.28  | 6               | 1.56  | 16         | 1.94  |
| 13. Aviation                    | 5          | 1.14  | 1               | 0.26  | 6          | 0.73  |
| 14. Utility Worker              | 5          | 1.14  | 1               | 0.26  | 6          | 0.73  |
| 15. Custodian                   | 7          | 1.59  | 10              | 2.60  | 17         | 2.06  |
| 16. Deceased—Retired            | 24         | 5.47  | 15              | 3.90  | 39         | 4.73  |
| 17. Miscellaneous               | 17         | 3.87  | 19              | 4.93  | 36         | 4.36  |
| 18. Unknown                     | 14         | 3.18  | 12              | 3.11  | 26         | 3.16  |
| <b>TOTAL</b>                    | <b>439</b> |       | <b>385</b>      |       | <b>824</b> |       |

Table III  
Comparison of vocations of Fathers of Boys Who Plan  
to Enter Agriculture With Those Who Do Not\*

| Occupation of Fathers      | Fathers of Boys<br>Planning To<br>Enter Agriculture |       | Fathers of Boys<br>Not Planning To<br>Enter Agriculture |       |
|----------------------------|---|-------|---|-------|
|                            | No.   | %     | No.   | %     |
| 1. Professional Management | 27  | 5.64  | 4   | 1.16  |
| 2. Clerical                | 35  | 7.31  | 34  | 9.85  |
| 3. Service                 | 9   | 1.87  | 4   | 1.16  |
| 4. Agriculture-Forestry    | 222   | 46.34 | 109   | 31.60 |
| 5. Skilled                 | 104   | 21.71 | 104   | 30.14 |
| 6. Semiskilled             | 30  | 6.26  | 30  | 8.69  |
| 7. Unskilled               | 24  | 5.01  | 23  | 6.67  |
| 8. Unknown or Deceased     | 28  | 5.85  | 37  | 10.72 |
| <b>TOTAL</b>               | <b>479</b>  |       | <b>345</b>  |       |

\*Since there was practically no difference in the vocations of fathers in freshmen and junior-senior groups they are combined.

Table IV  
Post High School Plans of Vocational Agriculture Students

| Plans                     | Freshmen   |       | Juniors-Seniors |       | Total      |       |
|---------------------------|------------|-------|-----------------|-------|------------|-------|
|                           | No.        | %     | No.             | %     | No.        | %     |
| 1. Enter Military Service | 90         | 20.50 | 46              | 11.95 | 136        | 16.50 |
| 2. Enter Farming          | 64         | 14.58 | 25              | 6.49  | 89         | 10.80 |
| 3. Go to College          | 153        | 34.85 | 203             | 52.73 | 356        | 43.20 |
| 4. Any Job Available      | 30         | 6.83  | 33              | 8.57  | 63         | 7.65  |
| 5. Undecided              | 89         | 20.27 | 59              | 15.32 | 148        | 17.96 |
| 6. Other Than Above       | 13         | 2.96  | 19              | 4.93  | 32         | 3.88  |
| <b>TOTAL</b>              | <b>439</b> |       | <b>385</b>      |       | <b>824</b> |       |

tion than had fathers in one of these vocations. Conversely about three times as many fathers were employed in the skilled trades and construction as there were sons planning to enter these vocations. Also, there were more fathers in business than there were sons planning to enter this field. Too few of the fathers were in any of the other occupational categories to draw any inferences.

It is of interest to note that the vocation of the father does perhaps influence the vocational choice of the son (Table III). Here it is shown that about 46 per cent of the boys whose fathers are in agriculture plan to enter this field while about 32 per cent of the boys studying agriculture, but not planning to enter this field, have fathers in agriculture. The opportunity the boy has to enter farming or an agricultural business with his father undoubtedly is a factor in this decision. A lower per cent of the boys whose fathers were skilled tradesmen planned to enter agriculture than intended to enter some other occupation. Differences were slight between the vocations of the fathers of the boys who planned to enter agriculture and those who planned to enter some other vocation. An exception was noted in the professional management group. Here there were considerably more of the sons of persons in the professions and/or managerial positions planning to enter agriculture.

The students were asked what they planned to do immediately after graduation from high school. For many freshmen the answer was undoubtedly more or less of a guess. For many students in the older group, however, the problem was immediate and real as these data were collected just prior to the dismissal of school in 1961. Slightly over one in nine of the older group planned to enter the military service immediately—almost twice as many as planned to enter farming directly (Table IV). Over half (51 per cent) planned to continue their education in college. About one in twelve planned to take any job he could get while about one in seven was undecided. Since about 29 per cent of the junior-seniors planned to enter farming with agricultural industry, veterinary medicine, and forestry accounting for 16, 4 and 5 per cent respectively it is assumed that many are entering college to prepare for agricultural careers or are going into the military service before entering farming.

*Findings*

While the data presented in Tables I through IV are limited to 27 schools and 824 students, it does appear that attention should be called to the following tentative findings:

1. Most high school vocational agriculture students have made at least a tentative vocational choice.
2. There was a striking similarity between the occupation plans of freshmen and junior-seniors. The vocations of the fathers of these two groups of students were similar.
3. Between 50 and 60 per cent of those enrolled in vocational agriculture were planning to enter careers in agriculture. The remainder planned to enter a wide range of professions and vocations.
4. The fathers of boys enrolled in vocational agriculture tended to be employed either in agriculture, the skilled trades, including construction, or in the sales field. About one third of the boys had fathers who were full time farmers.
5. A higher per cent of the fathers of students who planned to en-

ter agriculture were in agriculture than was true for those vocational agriculture students planning to enter vocations other than agriculture.

6. A high proportion (52 per cent) of the vocational agriculture junior-seniors in this group planned to enter college directly from high school. Over 16 per cent planned to go directly into the military service.

*Conclusions of Study*

Since the students in this sample have definitely started vocational plans one might wonder if this isn't true for most high school students. If so it then becomes the combined responsibility of parents and teachers to help the young person make the vocational choice which is best for him. The emphasis upon the selection of a vocation should not stop just because a student has declared an interest in a certain field or is enrolled in a class in vocational education. Also since most freshmen have made a tentative vocational choice the need for occupational information goes back to the grade schools and junior high schools.

Perhaps we need to question the age old idea that a student has made

the decision to enter the occupation for which he is taking vocational preparation. Undoubtedly interest in the specific field of work may be a better criterion for entry into vocational education than prior vocational commitment. Could it be that our vocational agriculture programs at the high school level are serving an exploratory function for as many as half of the students enrolled?

Students are undoubtedly using vocational agriculture as preparation for many kinds of vocations other than those in agriculture and many of these vocations will require college or university education. Therefore, many of the students enrolled in vocational agriculture must also take the courses necessary for entrance into institutions of higher learning.

Since a large number of students enrolled in vocational agriculture are interested in entering vocations other than agriculture, one might wonder why they are enrolled in this program. Could it be that the popularity of the teacher, or the opportunity to belong to the Future Farmers of America organization, or the opportunity to get instruction in farm shop are major attractions for students? Maybe these overshadow the strictly vocational aspects of the program. □

## Supervised Farming Programs Make Cents

SHELDON STOFF, Vo-Ag Instructor, Schoharie, New York



At the end of a warm, humid day in school, we are often tempted to feel relieved when the final bell sounds. Strangely enough, that bell is also the signal for the beginning of much of our most vital work, supervising farming programs. It is these programs which test our teaching methods and the effectiveness of the curriculum in our departments. If it is true that boys "learn best by doing," then it is equally true that we must do all in our power to make the "doing" a reality and the road to real success.

With this in mind, let me illustrate my point. Jerry Polak, one of the boys in my senior agricultural class, is an average student at Schoharie High School but he is not just an

average student when it comes to a farming program. Three and a half years ago the Polak family rented out their crop land but left the barn empty. Jerry's father was quite satisfied working in construction. At this time Jerry asked his father to start restocking their dairy herd. He promised to do all in his power to develop a successful dairy farm. Slowly the process began. Cows were purchased and run down land was reclaimed. Jerry read widely and applied what he learned in vocational agriculture.

At the beginning of his senior year Jerry had 20 cows. He started a new feeding program based on work learned in class. Milk production went up to almost 20,000 pounds in a few

short months. Later, he started buying early cut hay and milk production jumped another can a day. When Jerry compared income over feed costs per cow with neighboring farmers, he found that he was tops. His production was higher than local averages. He fertilized and limed his run down fields, changed seeding mixtures, and was now harvesting hay the first week in June.

Jerry applied for the New York State Empire Farmer Award, and his work was reviewed by a professor at the New York State University at Cobleskill. He received the Empire Farmer degree he richly deserved. One of the officials of a local lending institution learned about Jerry's fine work from the Cobleskill professor.

He went to visit Jerry at his farm and was so impressed that he offered to finance Jerry in increasing his herd to 100 cows.

Jerry Polak will major in Dairy

Husbandry this September at the Cobleskill Institute. When he completes his work there he will take over the family farm and either gradually increase the herd size or accept

that offer of the lending institution and rapidly establish a 100 cow dairy. Either way, boys like Jerry are living proof of the value of vocational agriculture in the classroom and on the farm. □

## A Secondary Teacher Speaks Out

JOHN F. KILEY, English Department, Norfolk County Agricultural High School, Walpole, Massachusetts\*

A secondary teacher speaks out

And . . .

Projects some thoughts far

Into space

That may not match

Canaveral's pace,

But in education's mad rat race,

They're really not too far

Off base.

Cartoonist Dahl once cleverly depicted the shunting of the onus in an educational sense to subordinates. He showed the parent contacting the School Committee, the Superintendent appearing before the Board, the Superintendent castigating the Head Master and the Head Master sternly rebuking the teacher. In a surprising denouement, the teacher asserts himself to the parent and in the last scene, the parent lays the heavy hand of parental affection upon a vulnerable part of the child's anatomy.

In twenty-five years of coaching, I never had a winning team unless I had players possessed of ability and with a desire to play.

In more than thirty years of teaching in both the liberal arts and the vocational fields, I have been unable to impart knowledge and disseminate information to unwilling people.

The most important ingredient in the recipe for educational success is a proper attitude and this is inherent—it cannot be instilled. It can be nurtured, fostered and encouraged, indeed, but basically it must emanate from within the individual.

Too few students in secondary education today possess a realization of the value and importance of their education. Too many have absolutely no sense of responsibility for their own educational welfare and prosperity. Too frequently the teacher is

called upon to assume responsibilities that are legally and morally the duties of the parents.

Let not the college professor or associate pontificate. Let him try the better to understand the problems of the teacher on a secondary level.

Three years ago, a professor from the English Department at the University of Massachusetts sat in with the English instructors from the county schools and the agriculture departments in the state at the Annual Summer Conference of Massachusetts Vocational Agricultural Teachers. He was most cooperative and, when the session concluded, frankly admitted that the lot of the secondary teacher was not an enviable one.

Let the student make a mistake of grammar, spelling, punctuation or capitalization two or three times after it has been once noted for him and corrected and he fails for the assignment on the college level. Let the IBM machine record insufficient quantitative credits and the student is forced to withdraw from the college or university. Little humanity or "heart" remains today in higher education where the so-called "cream of the crop" reign and more apply for admission than can be accommodated.

English in the vocational agricultural field must be practical. Instructors must be governed by the capabilities of their students. Reading must be geared to comprehension. Rate is decidedly a secondary factor. Build it up within reason, but never at the sacrifice of understanding and retention. Cause the student to realize that a normal reading rate is not the rate he should use when studying. There he must read and re-read in order to digest.

In English strive—and  
evermore the goal eludes

your grasp,

Perfection is the end you

seek—you reach to

clutch and clasp.

But I seek not reform through this article. I urge understanding of the problems confronting the secondary school teacher. I solicit proper evaluation of his efforts by supervisors and parents. His problems are multiple and difficult to solve.

He needs guidance and encouragement because he still has to cope with the mounting problems of those in the formative years of their lives. He cannot summarily dismiss members of his classes or exclude them.

To many he represents much of what is left of human understanding in education. As he continues his work in his profession, endeavoring to bridge the gap yawning before him because of inadequate knowledge where fundamentals are concerned (this is no indictment of elementary school brethren but rather a criticism of some of the now recognized failures of "progressive education"), throw him a preserver instead of an anchor. □

### Farm Record Analyses . . .

tor's net farm income. Three explanations for this were suggested. Total acres farmed was the most important variable affecting farm income, and the effect of operating a large farm tended to cover up the advantages of educational achievement. A second explanation is that the advantages of educational achievement appear over a period of time, and since these were beginning farmers, these advantages had not yet appeared. The third explanation was that the concentrated training in farming available to these mature, full-time farm operators had tended to close the gap in income earning potential caused by differences in educational achievement. □

\*Mr. Kiley is Head of the English Department at the Norfolk County Agricultural High School and is a full-time teacher of English for vocational agriculture students only.

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# The Professional In-Service Training Needs of State Supervisors of Vocational Education in Agriculture\*

ROBERT E. TAYLOR, Teacher Education, Ohio State University, Columbus

Change is the order of the day. Concepts of agricultural education are undergoing constant examination and evaluation as a result of research findings and the influence of social and economic forces. Supervisory concepts have not escaped this scrutiny and appraisal. State supervisors of vocational education in agriculture, like other educational workers, have shown increased interest in recent years in in-service education. To aid in the development of in-service education programs for state supervisors, the writer identified and validated the professional in-service education needs of supervisors and the influence of selected factors on these needs.<sup>1</sup>

The professional competencies needed by supervisors to implement the 16 guiding principles for state supervision reported earlier constituted the instrument used to survey supervisors on their in-service education needs. The final instrument, formulated with the aid of a national jury of experts, included 160 competencies organized under the 16 guiding principles. Supervisors were asked to react to their own personal in-service training needs in each competency, using the following scale:

|                      |                              |
|----------------------|------------------------------|
| 4                    | 3                            |
| Much training needed | Considerable training needed |
| 2                    | 1                            |
| Some training needed | Little training needed       |
| 0                    |                              |
| No training needed   |                              |

<sup>1</sup>Robert E. Taylor, "An In-Service Education Program for State Supervisors of Vocational Education in Agriculture" (Ph.D. dissertation, The Ohio State University, 1961).

\*This is the last of three articles by the writer based on his dissertation. The other articles appeared in April and May, 1962.

The research design provided for validating the supervisors' responses with the judgment of a selected group of state directors of vocational education and chief state school officers.

Returns were received from 213 state supervisors. The validating group consisted of 16 chief state school officers and 14 state directors of vocational education.

## Treatment of Data

The multiple regression technic was chosen as the statistical model to determine the influence of selected factors and characteristics on supervisors' perceived in-service education needs. The t test was used to determine whether a significant difference existed between supervisors' mean ratings of their in-service education needs and the mean ratings of supervisors' needs by the state directors and chief state school officers. The data were processed on the IBM 704.

In the analysis of data, respondents were divided according to their supervisory position and location in the four administrative regions of the United States.

## Training Needs

Collectively, state supervisors of vocational agriculture believe that "some" to "considerable" training is needed in all of the 160 professional competencies included in this study. The supervisors' mean rating of their training needs in 93 of the 160 competencies in the study was 2.50 or higher, thus indicating that "considerable" training is needed in these areas. All of the remaining competencies were rated sufficiently high to indicate that "some" training is needed.

An area mean rating was computed from the mean ratings of the competencies listed under each guiding principle. The rankings of these major areas are shown in Table 1.

TABLE 1. Ranked Area Means of Supervisors' Professional In-Service Training Needs as Perceived by Supervisors and the Validating Group

| Number of guiding principle | Area (guiding principle)   | Supervisor responses |      | Validating group responses |      |
|-----------------------------|--|----------------------|------|----------------------------|------|
|                             |  | Rank                 | Mean | Rank                       | Mean |
| 15                          | Supervision in vocational agriculture should provide for evaluation of the supervisory program.  | 1                    | 2.69 | 10                         | 2.77 |
| 14                          | Supervision in vocational agriculture should encourage and assist in the evaluation of local vocational agriculture programs.  | 2                    | 2.67 | 8                          | 2.78 |
| 12                          | Supervision in vocational agriculture should cooperatively develop a program of public relations which adequately interprets to the public the purposes, procedures, and accomplishments of the complete vocational agriculture program. | 3                    | 2.66 | 3                          | 2.94 |
| 2                           | Supervision in vocational agriculture should provide leadership in educational planning and involve in the planning process representatives of groups interested in the vocational agriculture program.                                  | 4                    | 2.62 | 7                          | 2.79 |



TABLE 1. (Continued)

| Number of guiding principle | Area (guiding principle)   | Supervisor responses |      | Validating group responses |      |
|-----------------------------|--|----------------------|------|----------------------------|------|
|                             |  | Rank                 | Mean | Rank                       | Mean |
| 8                           | Supervision in vocational agriculture should contribute to the improvement of instruction.   | 5                    | 2.61 | 6                          | 2.81 |
| 4                           | Supervision in vocational agriculture should stimulate local initiative and responsibility and coordinate the various elements into a unified state program.   | 6                    | 2.54 | 4                          | 2.86 |
| 13                          | Supervision in vocational agriculture should promote, conduct, and utilize educational research.   | 7                    | 2.51 | 5                          | 2.84 |
| 1                           | Supervision in vocational agriculture should provide leadership in appraising the needs for vocational agriculture.  | 8                    | 2.48 | 12                         | 2.72 |
| 6                           | Supervision in vocational agriculture should recognize the dynamics of human relationships by determining supervisory procedures and techniques based on the needs of each situation.  | 9                    | 2.47 | 11                         | 2.74 |
| 5                           | Supervisory procedures and techniques in vocational agriculture should exemplify democratic processes and contribute to a climate which stimulates creativity and professional growth.   | 10                   | 2.45 | 9                          | 2.77 |
| 9                           | Supervision in vocational agriculture should harmonize with modern educational theory and practice.  | 11                   | 2.42 | 2                          | 2.95 |
| 10                          | Supervision in vocational agriculture should operate within a framework or functional written policies and procedures and develop cooperatively policies and procedures for systematic and efficient administration and supervision. | 12                   | 2.42 | 14                         | 2.68 |
| 16                          | Supervision in vocational agriculture should make a contribution to the improvement of the educational profession.   | 13                   | 2.40 | 16                         | 2.56 |
| 3                           | Supervision in vocational agriculture should aid in coordinating the efforts of agencies, groups, and organizations interested in improving vocational education in agriculture.   | 14                   | 2.40 | 13                         | 2.70 |
| 7                           | Supervision in vocational agriculture should facilitate communication among all parties participating in the vocational agriculture program.   | 15                   | 2.35 | 15                         | 2.59 |
| 11                          | Supervision in vocational agriculture should assure that vocational agriculture programs are consistent with the legal provisions of the state plan for vocational agriculture.  | 16                   | 2.24 | 1                          | 3.18 |

It will be noted that supervisors rated their training needs highest in the broad areas of educational evaluation. Public relations and supervisory leadership in educational planning also received a high priority. It is noteworthy that supervisors ranked their training needs in the area of "assuring

that vocational agriculture programs are consistent with the legal provisions of the state plan" the lowest among the 16 areas in the study.

The selected chief state school officers and state directors of vocational education consistently indicated that a higher level of training was

needed by supervisors in all areas. However, this difference in rating was not significant in many cases. There was wide disagreement between supervisors and their superiors on the relative importance of training needs under Guiding Principle 11, . . . assure that vocational agriculture programs are consistent with the legal provisions of the state plan for vocational agriculture.

To provide an additional overview of the findings, 20 of the 160 competencies included in the study have been selected for additional discussion. These are the ten competencies rated highest and the ten competencies rated lowest by the supervisors. Tables 2 and 3 show these competencies, the mean rating of each, and the number of the guiding principle under which each was listed.

#### Validation of Training Needs

While the selected chief state school officers and state directors of vocational education indicated, with one exception, that a higher level of training was needed by supervisors than did the supervisors themselves, they, in general, validated the supervisors' ratings since on only 31 of the 160 competencies did their ratings differ significantly from those of the supervisors. In essence, congruence existed in the ratings of the two groups. Where significant differences in the ratings of the two groups existed, the selected chief state school officers and state directors rated higher than did the supervisors the need for training by supervisors in the competencies concerned with identifying and understanding the role of the supervisor and the relationship of the supervisor with others.

These and other differences which occurred in the study hint that supervisors and their superiors have differing perceptions of the role of the supervisor.

#### Factors Influencing Training Needs

Nine factors and characteristics of state supervisors were used as independent variables in a multiple regression formula to determine their relative influence on supervisors' ratings of the 160 competencies which were used as dependent variables. These independent variables and their relative influence are shown in Table 4.

The Southern Region was used as a reference point in determining significance for the other three regions.

TABLE 2. The Ten Competencies in Which Supervisors Indicated Their Greatest Need for Professional In-Service Training

| Rank | Number of guiding principle | Competency   | Mean rating |
|------|-----------------------------|--|-------------|
| 1    | 8                           | Utilizing FFA contests to advance educational objectives.  | 3.13        |
| 2    | 2                           | Helping teachers and administrators establish realistic objectives and standards for all phases of the vocational agriculture program. | 3.00        |
| 3    | 8                           | Aiding teachers in improving their instructional program for young farmers.  | 2.91        |
| 4    | 2                           | Planning a state-wide program of vocational agriculture.   | 2.90        |
| 6.5  | 12                          | Securing public understanding and support of the program.  | 2.88        |
| 6.5  | 13                          | Using pilot or experimental programs.  | 2.88        |
| 6.5  | 14                          | Stimulating self-evaluation of local programs of vocational agriculture.   | 2.88        |
| 6.5  | 15                          | Making evaluation an integral part of the supervisory program.   | 2.88        |
| 9.5  | 12                          | Interpreting the complete vocational agriculture program to the public.  | 2.86        |
| 9.5  | 14                          | Using evaluation results in improving and projecting the program.  | 2.86        |

TABLE 3. The Ten Competencies in Which Supervisors Indicated the Least Need for Professional In-Service Training

| Rank  | Number of guiding principle | Competency  | Mean rating |
|-------|-----------------------------|---|-------------|
| 160   | 3                           | Working effectively with the state vocational agriculture teachers association.   | 1.87        |
| 158.5 | 11                          | Determining eligibility of departments for reimbursement.   | 1.99        |
| 158.5 | 13                          | Stimulating needed research.  | 1.99        |
| 157   | 7                           | Preparing official reports.   | 2.06        |
| 156   | 7                           | Utilizing official channels of communication.   | 2.12        |
| 154.5 | 11                          | Developing report forms needed.   | 2.14        |
| 154.5 | 13                          | Involving teachers and administrators in state-wide research studies.   | 2.14        |
| 153   | 8                           | Advising the state FFA.   | 2.15        |
| 152   | 8                           | Working effectively with officers of the state FFA.   | 2.17        |
| 151   | 10                          | Understanding the state vocational education administrative organization and the job responsibilities of various staff members. | 2.19        |

The influence of supervisory location in this region may be inferred from the *t* values of the other three regions.

It will be noted that the major factors and characteristics influencing supervisors' ratings of their professional in-service training needs were the location of supervisors in the Central and Pacific Regions and whether the respondent held the position of head supervisor as contrasted to staff supervisor. Apparently the other factors

and characteristics exerted relatively little influence on supervisors' ratings.

#### Digest of Conclusions and Recommendations

Following are some of the conclusions drawn by the writer in this study:

1. In-service training is needed by state supervisors in all of the 160 professional competencies. The four ma-

for areas of in-service training needs are the following:

Providing for evaluation of the supervisory program.

Encouraging and assisting in the evaluation of local vocational agriculture programs.

Cooperatively developing a program of public relations which adequately interprets to the public the purposes, procedures, and accomplishments of the complete vocational agriculture program.

Providing leadership in educational planning and involving in the planning process representatives of groups interested in the vocational agriculture program.

2. The selected factors and characteristics influence supervisors' ratings of their professional in-service training needs. However, they account for only a portion of the total variation.

3. While the in-service training needs of supervisors with certain characteristics and in certain situations differ significantly, these differences are not so extreme as to preclude the effective participation of these supervisors in a training program designed to meet the mean needs of supervisors.

4. Professional experience and training of head and staff supervisors do not differ substantially.

5. Generally speaking, supervisors perceive their professional in-service training needs and are interested in in-service training.

6. An in-service education program for supervisors should be continuous and provide for part-time, full-time, credit, and noncredit activities.

7. There is a need for specific training activities for state supervisors.

8. Supervisors and their superiors differ in their perceptions of the role of the state supervisor of vocational education in agriculture.

9. Time, finance, and lack of suitable training activities are the main factors restricting or prohibiting supervisors' participation in professional in-service training activities.

10. Personnel policies for state supervisors generally are not clearly defined or understood.

11. Indications are that there will be a continuing demand for trained professional workers in state supervisory positions due to retirement, transfer, and promotion.

The following recommendations were made:

1. That a suitable training program be established to meet the in-service training needs of state supervisors of

TABLE 4. Factors Influencing Supervisors' Ratings of Their Training Needs

| Characteristic of Supervisors                    | Number of times significant at .05 level |
|--|--|
| 1. Number of years in supervision                | 4  |
| 2. Number of years in vocational teaching        | 7  |
| 3. Number of years to mandatory retirement       | 6  |
| 4. Courses in supervision and/or administration  | 6  |
| 5. Masters degree in the educational field       | 0  |
| 6. Head state supervisor                         | 27                                       |
| 7. Pacific Region location of supervisors        | 35                                       |
| 8. Central Region location of supervisors        | 52                                       |
| 9. North Atlantic Region location of supervisors | 2  |

vocational education in agriculture and that in planning this program consideration be given to the findings of this study.

2. That state supervisors become familiar with existing personnel policies in their departments, specifically those dealing with professional leave and salary allowances for advanced preparation.

3. That consideration be given to utilizing the guiding principles for state supervision in developing an evaluation instrument for state supervision and for their application to supervision in the other vocational services.

Like many research projects, this study pointed up the need for additional study in a number of related

areas. Following are some of the areas of needed research:

1. To identify possible conflicts between state supervisors and others in their perception of the role of the state supervisor of vocational education in agriculture.

2. To develop procedures and instruments for evaluating state supervision of vocational education in agriculture.

3. To identify and recommend personnel policies for state departments of vocational education.

4. To study further the 31 professional competencies identified in this study on which supervisors and their superiors differed significantly in their ratings of in-service training needs.

5. To determine the professional in-service training needs of state supervisors in other vocational services.

6. To determine other factors which influence supervisors' ratings of their professional in-service training needs and their implications for in-service training. □

## Joys and Discomforts of College and University Teaching

DICK SNEDDON, Vo-Ag Instructor, Lakeview, Oregon

This paper deals with a simple attempt to place some concrete values on the beneficial and disturbing aspects of college and university teaching. As a means of gathering data it was decided to personally discuss the matter with various college staff members on the Oregon State University campus. Selection of particular staff members for this opinionnaire was purely on the basis of personal acquaintances in the Schools of Agriculture and Education during the previous four years of instruction at Oregon State. Names of those staff members will not be discussed, but their particular professional field and teaching experience will be listed.

The following question was personally submitted to each individual for his own viewpoint and opinionated comments: "Based on your experience, what are two 'joys and discomforts' of college and university teaching?"

Table 1 presents in tabular form the answers to the above question. A total of thirteen staff members with an average of 16.4 years of college

teaching experience were interviewed, including 13.6 years at Oregon State and 2.8 years average at other colleges and/or universities throughout the United States and British Columbia.

Tabulated information shows that the most common "joys" of college teaching are based upon the satisfaction of working with young students who have the inspiration and attitude to learn and make something of themselves. Also of importance is the feeling by staff members that they are a vital element in the improvement of their own profession. Closely associated with the feeling of professionalism are the benefits for his family found in a community built around a college or university.

Of importance among the "discomforts" is the aspect of the normal administrative work involved with the actual teaching process. Demands of committee work, correspondence, etc., are all portions of the college teaching job, but often take time which could be better spent towards prepa-

ration of lesson materials for classroom instruction. Other disturbing aspects are making adequate and fair evaluations of students and their work; limitations of the quarter system of college instruction; inability to complete planned work due to interruptions and time inadequacies; and inadequate physical and functional facilities to do a creditable job of teaching.

Probably the most striking point of this survey was the expression of surprise by the majority of those persons interviewed. It seems that a great many teachers have a tendency to become so involved in their work that they rarely take time to place values on their activities.

To better understand what attracts and holds teachers at the college level, a pilot study of Minnesota's 32 private and public college faculties was recently made.<sup>1</sup> Subjects of the study were 773 college teachers, both part-time and full time. These faculty members closely resembled their colleagues throughout the United States

TABLE 1  
JOYS AND DISCOMFORTS OF COLLEGE TEACHING EXPRESSED BY FACULTY MEMBERS IN THE SCHOOLS OF AGRICULTURE AND EDUCATION AT OREGON STATE COLLEGE

| School and/or Department | * College teaching experience—OSC (yrs.) | JOYS                    |                               |                                  |                             |                                    |                                    |                             |                               |                                     |                               | DISCOMFORTS                     |                              |                         |                                |                                |                                   |                            |  |                              |                          |                                      |                       |                                    |                                   |                             |
|--------------------------|--|-------------------------|-------------------------------|----------------------------------|-----------------------------|------------------------------------|------------------------------------|-----------------------------|-------------------------------|-------------------------------------|-------------------------------|---------------------------------|------------------------------|-------------------------|--------------------------------|--------------------------------|-----------------------------------|----------------------------|--|------------------------------|--------------------------|--------------------------------------|-----------------------|------------------------------------|-----------------------------------|-----------------------------|
|                          |  | College teaching (yrs.) | Other college teaching (yrs.) | Combined college teaching (yrs.) | Working with young students | Improvement of self and profession | Administrative support of teaching | Favorable student attitudes | Benefits of college community | Teaching based on personal research | Self distribution of workload | Challenge of teaching situation | Inadequate salary conditions | Poor retirement program | People not working to capacity | Adequately evaluating students | Discouraging non-qualified people | Excess clerical work loads | Unable to attend professional meetings | Limitation of quarter system | Monotonous teaching load | Adjustment to new teaching situation | Reprimanding students | Inability to complete work planned | Self evaluation of job being done | Lack of adequate facilities |
| Education                | (3)                                      | 53                      | 6                             | 59                               | 3                           | 2                                  |                                    |                             |                               |                                     | 1                             |                                 |                              |                         |                                |                                |                                   | 1                          |  |                              |                          |                                      |                       |                                    |                                   |                             |
| Farm Crops               | (1)                                      | 4                       | 8                             | 12                               | 1                           |                                    | 1                                  |                             |                               |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  | 1                            |                          |                                      |                       |                                    |                                   |                             |
| Poultry                  | (1)                                      | 5                       | 0                             | 5                                |                             |                                    |                                    | 1                           |                               |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  | 1                            |                          |                                      |                       |                                    |                                   |                             |
| Ag. Economics            | (1)                                      | 22                      | 2                             | 24                               | 1                           |                                    |                                    | 1                           |                               |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  |                              |                          |                                      |                       |                                    |                                   |                             |
| Ag. Education            | (1)                                      | 2                       | 1                             | 3                                |                             |                                    |                                    |                             | 1                             |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  |                              |                          |                                      |                       |                                    |                                   |                             |
| Dairy-Animal Husb. (2)   | (2)                                      | 46                      | 2                             | 48                               | 2                           | 1                                  |                                    |                             | 1                             |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  |                              | 1                        |                                      |                       |                                    |                                   |                             |
| Soils                    | (1)                                      | 1                       | 13                            | 14                               | 1                           | 1                                  |                                    |                             |                               |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  |                              |                          |                                      | 1                     |                                    |                                   |                             |
| Ag. Engineering          | (2)                                      | 17                      | 4                             | 21                               | 1                           | 1                                  |                                    |                             |                               |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  |                              |                          |                                      | 1                     |                                    |                                   |                             |
| Fish and Game            | (1)                                      | 28                      | 0                             | 28                               | 1                           | 1                                  |                                    |                             |                               |                                     |                               |                                 |                              |                         |                                |                                |                                   |                            |  |                              |                          |                                      |                       |                                    |                                   | 3                           |
| <b>TOTAL</b>             | <b>(13)</b>                              | <b>177</b>              | <b>36</b>                     | <b>213</b>                       | <b>10</b>                   | <b>6</b>                           | <b>2</b>                           | <b>2</b>                    | <b>3</b>                      | <b>1</b>                            | <b>1</b>                      | <b>1</b>                        | <b>1</b>                     | <b>1</b>                | <b>1</b>                       | <b>4</b>                       | <b>1</b>                          | <b>1</b>                   | <b>3</b>                               | <b>1</b>                     | <b>1</b>                 | <b>1</b>                             | <b>3</b>              | <b>1</b>                           | <b>3</b>                          |                             |

\*Number of faculty members interviewed.

with respect to sex (73% men), median age (43 years), percent holding doctor's degree's (41%), study beyond the master's degree (28%).

The fact that college teaching is a "holding" profession is indicated by the low percentage of turnover among members of this study — ten years teaching experience with eight years being spent in their present institution. About half of the teachers described themselves as "very satisfied" while another 45% said that they were "satisfied" with their profession. Fewer than one in 100 indicated serious dissatisfaction.

When asked what steps might be taken to encourage capable young people to enter college teaching, the most frequent recommendation was offering increased salaries. Other suggestions included broader scholarship and financial aid, more information on the advantages of academic life, improved working conditions, lighter work loads, more time for research, and "a more stimulating intellectual atmosphere."

In summary, the college and/or university teacher of today can be pictured as a man who likes his job and wants to stay in his chosen profession, but feels that there is a need for more recognition of his day-to-day "joys and discomforts" and a wider support for his services—both professional and personal. □

<sup>1</sup>Ruth E. Eckert and John E. Stecklein, "Why Teach in College?" *NEA Journal*, February, 1958, Vol. 47, p. 120.

### FUTURE THEMES

JULY—Planning Local Programs

AUGUST—Building School Relationships

SEPTEMBER—Selecting Farming Programs

OCTOBER—Developing Young Farmer Programs

NOVEMBER—Public Relations



## Guidance—It Is Our Work

CLIFFORD C. FISHER, Vo-Ag Instructor, Fish Creek, Wisconsin

Since the advent of expanded guidance services on the secondary education level, the position of vocational agriculture may be in peril. This is due to the fact that guidance people, in many cases, are counseling young people into the academic fields for college preparation. The vocational agriculture instructor is overlooked in this arrangement, and his contribution to the guidance field is left wanting.

It is true that colleges are demanding more intense academic preparation. Yet, it is likewise true that attitudes, skills, and interests developed in vocational agriculture can be definite assets to the young boy going to college. For those not planning further education these attributes are essential in the labor field. Therefore, the vocational agriculture instructor has a prime contribution in subject matter content and in guidance. In no place in the pupil's curriculum is guidance a more primary consideration than in vocational areas.

Guidance is the essence of the vocational agriculture instructor's many opportunities in assisting our youth, the farmers of tomorrow, or in presenting a new idea or concept to the more experienced farmer. There are many facts of guidance which apply

in the program. Basically it revolves around the individual, the group, the student, or adult, each seeking to learn greater skills in a vital occupation so essential to the world's population.

### The Individual

The long armed, slender muscled, eighth grader eagerly inquires about high school, The Future Farmers of America, and the vocational agricultural program. Guidance commences as we plan and contemplate a long range farming program with him. Higher aspirations are in view of a State Farmer, American Farmer, and perhaps a desire to finance a college education, or to make farming a business. Sooner or later the individual comes in to seek advice about his farm or farming program. The student assumes a great faith in the instructor's assistance. He is looking for the answers, or at least looking for a program which will give him his answers. If our advice proves to be beneficial to his situation, we are ten feet tall in his estimation, but should the guidance be ineffective or wrong, we assume a less definitive stature. The occasions for counseling

come often with the vocational agricultural student.

### Group

Our responsibility for group guidance fits tight like a new pair of buckskin gloves or suede shoes. Along with the obvious classroom teaching, there are many varied groups to lead along the learning paths. The Future Farmer Chapters are nearest to our heart, and like the proverbial wise old owl, we endeavor to expound knowledge and wisdom for the members' benefit at all times. The F. F. A. officers attain leadership qualities, to serve them in local or civic capacity in later life.

We may also have a homeroom group to look after, a local agricultural advisory council to keep informed. The many judging teams rely on our judgment when we are training them for competition. The administrator and fellow teachers utilize our information of the home situation in their dealings with pupils, and the farm family occasionally asks for help along lines outside of our field, also.

Yes, guidance is our full time employment although we call it teaching vocational agriculture. □

## Visiting Pre-Vo-Ag Boys Prior To Fall Enrollment

KENNETH FOX, Vo-Ag Instructor, Dodgeville, Wisconsin



Let us stop the shameful waste of our agriculture resources—the farm youth of the United States. Certainly agriculture and agriculture research is no less important than the field of satellites and missiles. Agriculture is in danger of being overshadowed by the current interest in the physical sciences and the glamour associated with them. This can be prevented by strong leadership of the Vocational Agriculture teachers. Many counselors and teachers are often not informed of the opportunities in agriculture, farming and related occupations and they talk to the rural students about other fields. Therefore the rural students are not always aware of the opportunities in the 500 or more dif-

ferent occupations closely related to agriculture, and may lose the advantage they may have as the results of their understanding of rural life and of their farm experience.

What happens to our rural students? Before World War II, farm youth accounted for about 85% of the total enrollment in Agriculture in the University of Missouri. The remaining 15% were students with urban background. At the last count at the same university less than half of the students in the Agriculture School had a farm background. It has been widely predicted that requirements for agricultural products in 1975 will be about one-third higher than current levels of production. Although

surpluses are a recognized problem today, present production levels would fall short of meeting predicted needs less than 20 years from now. These requirements must be met by increased production per acre rather than by bringing new land into production. Relatively small acreages of land not now farmed can be drained or otherwise improved and brought into production, but it is expected that such acreages will be largely offset by increased land requirements for cities, highways, industrial sites and other nonagricultural use. Thus, agricultural frontiers today are in technology and research—not in geographical exploration. I have given a few reasons why agricultural instruc-

## News and Views of the Profession

tors must counsel with all of our rural 8th grade boys and their parents and show them why both farming and agri-business have promising futures.

When should we do our counseling? This will depend to some degree on when the high school makes out the school program for the in-coming freshmen. Some schools make out the student programs in the late spring before school is out. If this is so, contact the boys and their parents before this date. If the programs are made out just before school starts in the fall, you will have the summer to do your counseling. No opportunity should be missed to discuss with the prospective student and his parents the opportunities in agriculture and in the related fields.

In discussing these opportunities, attention should be called to the following pertinent facts:

1. About 40% of the employed people in the United States work in farming or closely related jobs.
2. Agriculture is big business and the total investment in the business of agriculture in the U. S. exceeds 208 billion dollars.
3. City jobs are not as plentiful as they were.
4. Opportunities for Vo-Ag graduates are numerous in agricultural sales jobs.
5. Agricultural extension is always looking to Vo-Ag for well qualified graduates for DHIA work.
6. It has been predicted by 1975 that we will need one-third more farm products than we are now producing.
7. There are about 15,000 jobs for agriculture college graduates and only 7,000 graduating each year.

A new booklet published by the Land-Grant Colleges and Universities called, "There's a New Challenge in Agriculture," and an older one entitled, "I've Found My Future In Agriculture" should be read by the prospective Vo-Ag students.

The vocational agriculture teacher should meet with the school principal, teachers and with the guidance counselor of his school to give them information relative to opportunities in agriculture, that they might be better prepared to counsel rural boys in the selection of their courses upon enrollment in the high school. □

### Editor Ralph J. Woodin



Dr. Ralph J. Woodin, professor in the department of agricultural education at Ohio State University, will become Editor of the *AGRICULTURAL EDUCATION MAGAZINE* July 1.

ZINE July 1.

Dr. Woodin joined the Ohio State University faculty in 1940. A native of Chardon, Ohio, he was a teacher of vocational agriculture in three Ohio high schools from 1931 to 1940.

He served as visiting professor in agricultural education at Alabama Polytechnic Institute during the summer of 1952, and during the summer of 1960 at Pennsylvania State University. He has served as an educational consultant in Kentucky, Michigan, and Nevada.

He serves as executive secretary of the Ohio Vocational Association, a post which he has held since 1951. In 1961, Dr. Woodin was presented a life membership in the American Vocational Association, Inc., in recognition for his contributions to vocational education.

He served as chairman of the Franklin County School Citizen's Committee in 1955 and 1956, and of the North Central Regional Research Conference in 1955. He was regional editor of *THE AGRICULTURAL EDUCATION MAGAZINE* for the past seven years, and has edited the *OHIO AGRICULTURAL EDUCATION NEWS* and the *OHIO VOCATIONAL ASSOCIATION REPORTER*. He is also a member of the Hilliard Methodist Church and was chairman of the building committee when their new church was built.

Dr. Woodin is a member of the American Association of Teacher Educators in Agriculture, Gamma Sigma Delta, and Phi Delta Kappa. He is chairman of the research committee of the Ohio Vocational Agriculture staff and the Ohio Vocational Education staff and has conducted studies of part-time farming, teaching aids, and public relations.

He is co-author of "Meeting Ohio's Needs for Vocational and Technical

Education," and "A University Department Evaluates Its Curriculum." He has also written two monographs, "This Is Program Planning," in 1956, and "Better Communication for Agricultural Education," in 1956, as well as numerous bulletins and articles for periodicals.

Dr. Woodin is married and has a daughter, Mrs. William F. Fox, who in addition to being a homemaker, is an elementary teacher. □

### Montgomery Appointed Agricultural Editor for AVA Journal

Dr. Robert W. Montgomery was appointed to the position of Agricultural Editor of the *American Vocational Journal* last fall, replacing Dr. George P. Deyoe. In this position, Montgomery is automatically a member of the Editing-Managing Board of the *Agricultural Education Magazine*.

Montgomery is a member of a recently appointed Committee of Consultants to the U.S. Office of Education to study Program Adjustments in Agricultural Education. He is also on the Board of Directors of the National FFA Foundation.

Reared on a farm near Moulton, Alabama, in the Tennessee Valley Area, he holds B.S. and M.S. degrees from Auburn University and the Ph.D. degree from Ohio State University.

He has been Head Professor of Agricultural Education at Auburn University since 1952; was full Professor from 1946-52; Assistant State Supervisor in Alabama from 1943 to 1946; served as editor of the *Alabama Future Farmer*; and was a teacher of vocational agriculture in two Alabama schools. Prior to teaching vocational agriculture, he was a dairy technician for Southern Dairies in Birmingham, and then taught science at Hanceville, Alabama.

During the summer of 1959, he was Visiting Professor of Agricultural Education at Ohio State University. He has been speaker and consultant at State Conferences in Ohio, Florida, Mississippi, and South Carolina.

He has served as president of Gamma Sigma Delta and Phi Kappa Phi, and was elected to membership in Phi Delta Kappa, Kappa Delta Pi,

Block and Bridle, and Phi Delta Gamma (forensic). He has held offices as President of the Southern Regional Conference in Agricultural Education, and President of the Teacher Trainer's Breakfast of AVA when it was organized as the American Association of Teacher Educators in Agriculture.

Montgomery is listed in Marquis' *Who's Who in the Southwest* and in *Library of Alabama Lives*. Dr. and Mrs. Montgomery (Stella Etheredge) have two sons and one daughter. □

### ... Success in College

effective and influential part of a good high school education for students desiring to continue their education in a College of Agriculture. Every student should be encouraged to prepare well through his high school education—whether he is going into farming or into any of the many other opportunities in the broad field of modern agriculture. □



**SOILS: SOILS, GRASS, AND CANCER** by Andre Voisin. Published by the Philosophical Library, Inc., 15 East 40th Street, New York 16, New York. 302 pp. Price \$15.00.

This book is a scientific treatise of the relation of the soil to the health of people and animals. The influence of many of the secondary and trace elements on the lives of people is discussed in detail. The theory that the health of both man and animal is directly influenced by minerals in the soil is found throughout the text. This study implies that diseases are created to a great extent by the destruction of the harmony existing among the soil elements. Much evidence is presented to show that the prevention and cause of cancer may come as a result of a clearer understanding of human nutrition.

This text is well documented and the theories of the author are supported by research studies, most of which were conducted in Europe.

F. E. Kirkley  
Teacher Education  
Clemson College  
Clemson, South Carolina

## ◀ TIPS THAT WORK ▶

### Safety Glasses

I have found that many ag instructors tend to receive eye injuries while instructing and observing students in the vo-ag shop. Many of these injuries are received when the instructor happens to walk up to a boy just as he is striking an arc with an electric arc welder or starting to grind a piece of metal on a grinder.

In order to cut down on these injuries and eye burns, I have found that wearing a pair of safety glasses, with a No. 2 or 3 lens with built in limited transmission of ultra-violet and infra-red rays, in the shop while these activities are going on will help. When arc welding is not going on I keep a pair of clear safety glasses for use. It seems that this is economical insurance against eye injuries as a pair of

safety glasses cost only a few dollars and in many cases the school will furnish such items. Safety glasses can usually be obtained from most welding equipment and shop supply dealers.

In talking to a salesman of safety glasses, I found that even prescription glasses can be made with the clear or shaded glass for shop work.

A precaution should be noted that these glasses are not to take the place of arc welding helmets and grinder shields, but merely to protect the bystander from the unexpected. I train my students to give warning when starting to weld, but being human, they sometimes forget.

It appears that we, as ag and shop instructors, could take a lesson from industries where safety glasses are required. □

Submitted by:

Carl G. Devin  
Vo-Ag Instructor  
Nyssa, Oregon

## News and Views From NVATA

### Walter L. Bomeli Elected Vice President for Region IV of NVATA



Walter L. Bomeli of Bangor, Michigan, was elected as Vice President of NVATA for Region IV at the National Convention in Kansas City, Missouri, last December.

Mr. Bomeli was born October 5, 1921, near Peoria, Ohio. He was reared on a farm in Union County, located in north central Ohio. After attending York Rural Elementary and High School, from which he graduated in 1939, he went on to receive his Bachelor of Science Degree at the Ohio State University in 1944. His college training was interrupted by a call to service in the Army. The military career was shortened, however, by a case of Traumatic Arthritis which led to discharge from the Army in 1943.

After graduation from college, Mr. Bomeli taught Vocational Agriculture at Versailles, Ohio, for a year and a half before moving to Bangor, Michi-

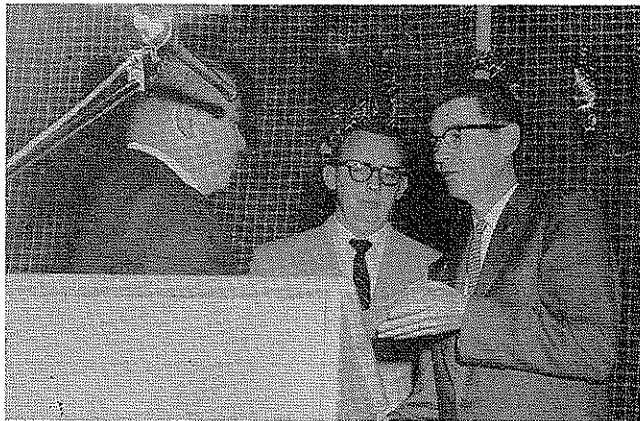
gan, in 1946 where he is currently teaching. Bangor is a one-teacher department located in the heart of the fruit producing area of Southwestern Michigan. In addition to the day school program which currently serves 45 high school students, Mr. Bomeli conducts a successful adult farmer program. The department, under his supervision, has produced 12 State Farmers, and he is equally proud of the fact that 17 former students have graduated from college and 7 are currently in some course of advanced study.

Walter and his wife, Doris, have two sons, Don and Ray, who are 14 and 11 respectively and are attending the Bangor Public Schools. The Bomelis are members of the First Congregational Church where both Mr. and Mrs. Bomeli teach Sunday School Classes.

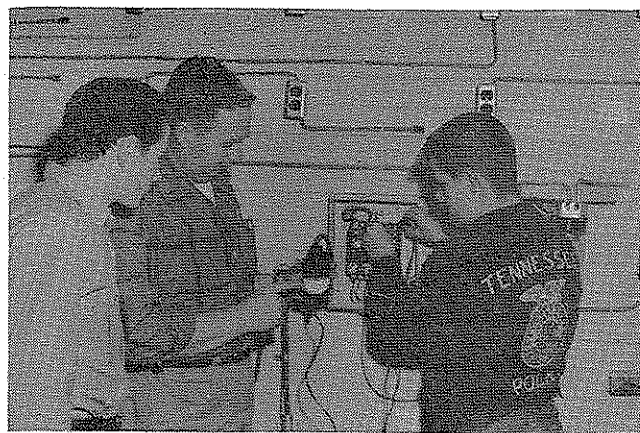
In addition to membership in the Michigan and National Education Associations, Mr. Bomeli is a member of the Michigan Curriculum Committee. He served three years as Secretary-Treasurer of the Michigan Association of Teachers of Vocational Agriculture, one year as Vice President, and is currently completing a term as President of the Association. □



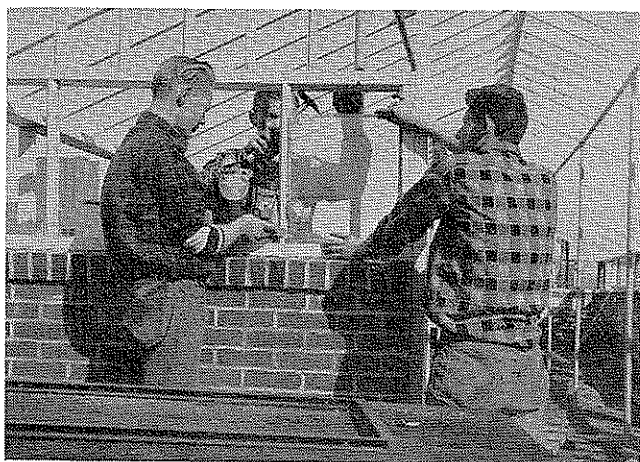
# Stories In Pictures



Darrell Behrendt, left, president of the Southern Illinois University Agriculture Student Advisory Council, presents the group's agricultural Alumnus citation to Clarence E. Cox, right, Joppa High School vocational agriculture teacher, for distinctive service to the agriculture of southern Illinois. Looking on is Grover C. Burkett, SIU graduate student in agriculture, who received student teaching supervision from Cox last year. The award was presented at SIU's All-Agriculture Dinner on February 23, 1962.



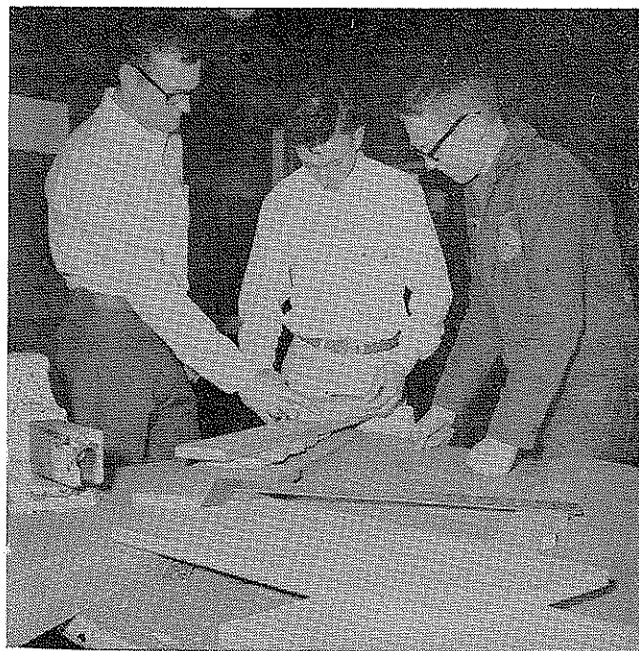
Instructing students on the use of a volt meter. Roy Crabtree, vo-ag instructor, Polk County High School, Benton, Tennessee, is shown talking to students in the shop. (Picture submitted by A. J. Paulus)



Typical of the activities of Vocational Agriculture Departments over the nation, this picture shows students in vocational agriculture constructing a greenhouse for the Bergen County FFA Chapter, Hackensack, New Jersey.



Teacher training in agricultural education at East Texas State College, Commerce, Texas, is discussed by (L to R) Mr. J. A. Marshall, Assistant Director of Agricultural Education, Texas Education Agency, Dr. Jarrell Gray, Head of the Agricultural Education Department at East Texas, and Dr. Duane Nielsen, Specialist in Teacher Training and Research, U.S. Office of Education.



Bill Burgess, student teacher in Agricultural Education from East Texas State College, supervises his students in farm shop during his student teaching at Sulphur Springs High School, Sulphur Springs, Texas. (Picture submitted by Jarrell D. Gray)