

*The*

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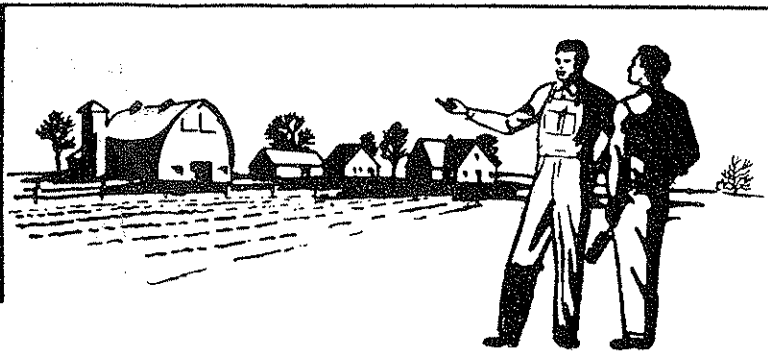
NUMBER 6



Photo legend, page 124

*Featuring*—**Effect on Agricultural Education  
of Changes in Schools and  
Educational Programs**

# 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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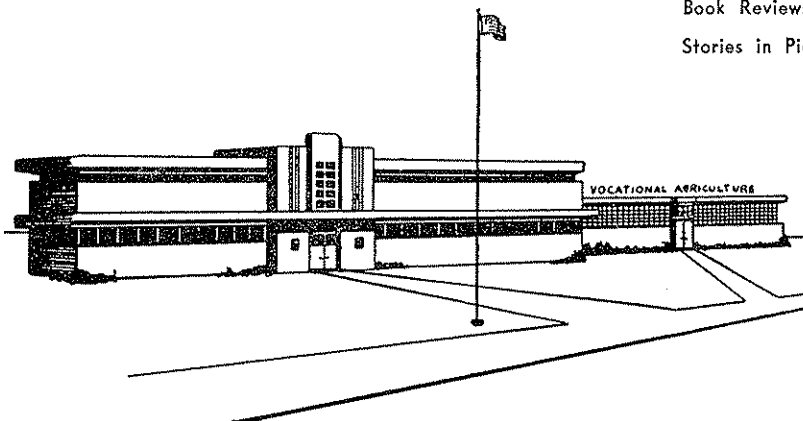
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# Editorials

## Let's Look at Our Hole Card!

CARL G. HOWARD, Teacher Education,  
New Mexico State University

My lessons in stud poker were expensive, for I learned the value of a good hole card from nightly sessions with a gang of Florida fruit packers on a southern Michigan peach and melon harvest foremanship. I learned here that one might fill a straight, flush, or full house if the four up cards were backed up by the right kind of hole card.

What kind of hole card do we have in vocational agriculture? Does it fill the hand as the four up cards require or are we trying to run a whizzer? Incidentally, there seem to be plenty of callers if we do that, or have people become more trusting? Is our offering the sort of thing we have been going into a mutual admiration society about, or are we trying to use a 1925 hole card in 1960? What changes can we offer to compensate for changes in population, agriculture, and education?

I sometimes think that nearly all of our difficulties and problems are our own fault and of our own contriving. I taught vocational agriculture in the twenties when job analysis, the problem method, seasonal sequence, cross sectioning, type of farming, and integration were rampant and we made a great to-do about defining, isolating, and writing articles, bulletins and books about our great educational problems. During this period we shifted the emphasis from adult agriculture to boy farming. If there was not an immediate need and use for anything we should not touch on it. We visited our projects in Model T Fords or on horseback (when the roads were too bad for a car). We demanded projects as a federal requirement. We thought of ourselves as federal employees and kidded ourselves about summer programs. Many of us got caught by the powers that were then and our pretensions to federal employment and top drawer treatment were exploded. The depression eliminated minimum salaries. And the hunting and fishing many of us did in the nomenclature of project visitation caught up with us. Enough of us fiddled and faddled in the summer that we all got the blame for doing next to nothing while drawing three months salary and some mileage. We fought administrators who wanted to make dumping grounds for all the misfits in the secondary school.

Now schools are getting to the point where the big ones are getting bigger and the small ones are getting smaller or being consolidated. Our farmers are getting fewer, our family size farms bigger, our ranchers scarcer and their ranches bigger, our corporation

## From the Editor's Desk . . .

### Let the Public Decide - - -

For several years teachers have been faced with the problem of trying to defend and preserve programs of vocational education in agriculture in the face of strong opposition. Other vocational areas have had similar problems. And perhaps that is the heart of the difficulty—the profession has fought to preserve something which belongs, not to the profession, but to the community.

Vocational education became a part of the public school program because the public wanted it that way. The public felt that the schools should provide training in marketable skills. There is evidence to indicate that the public still feels the same—that education for *work* is still one of the really important reasons for the existence of the schools. Then why not involve the public in the determination of the kinds and amounts of vocational education which should be provided?

In turning to the public, we will have to make certain that we do not substitute one select group for another. A handpicked advisory council would not be able to represent the people of the community any more effectively than the present school boards or groups of professional school people. An advisory council, if it is to be effective, must be so composed as to provide equally proportioned representation on it from all segments of the public, excepting only professional school people and school board members who would automatically be involved in various ways. Only in this way can we be certain that the recommendations of the council would have wide community approval and support.

The recommendations of an advisory committee of this kind might please none of the present groups making the decisions regarding vocational education. However, it is the public's responsibility and right to make this kind of decision and we should be willing to abide by it.

Support for vocational education came from the public and rests with the public. We have nothing to lose and everything to gain by asking the public to study anew the need for vocational education and render a decision regarding the need. Why do we hesitate? □

**A Merry Christmas to All**

from

**THE MAGAZINE STAFF**

## Let's Look - - -

(Continued from page 123)

farms and part-time farms greater, money for education is becoming scarcer, criticism by evaluating committees and lay persons greater, and the number of students who can actually get established in farming smaller. What do we have in the hole which will make us a good enough hand to bet on? I don't know. Do you?

We are told that our first two years of vocational agriculture as we have been teaching it then is good enough to fill our hand. What about the other or advanced years, if any? We are told that we should go to the distributive education program for agricultural business training in allied agricultural occupations. We are told that we should go to the trade and indus-

trial program for welding and training for the mechanical side of agricultural occupations. We are told that if we revert to the vocational agriculture of the 1920's and teach farm management on an adult basis to secondary students that we are in possession of a good hole card. I don't know about any of these solutions. Do you?

We have FFA or school pickups to visit students, secure and haul livestock, feed, and students to do a job in vocational agriculture. We have contests of all kinds to motivate students. We are gone from the school campus for many days a year on essential business for the FFA or vocational agriculture. Does this sound like a good hole card?

Shall we experiment and hope? Shall we "fiddle while Rome burns"?

What is the solution and how can we be sure that our hole card is a good one? The only thing I know is to wait till we have the best hole card we can get and our up cards fit somewhat and then place our bets with the confidence of a gambler and hope for the best. If you have a better solution, the world of vocational agriculture will wear a road to your door. □

## The Cover Picture

The Mahomet, Illinois, Advisory Council is sitting down with the teacher of vocational agriculture and two student teachers to discuss the local program. This is an illustration of how the people of the community can be involved in making the decisions about education that are rightfully theirs to make. □

# An Evaluation of Vocational Agriculture Instruction

## In terms of student abilities and ambitions

E. A. TISCHBIREK, Vo-Ag Instructor, Arvin, Calif., and E. M. JUERGENSON, Teacher Education, Univ. of Calif.

Today more than ever before successful agriculture is an industry dependent upon highly trained capable personnel. This fact remains whether the individual is a research scientist, a tractor operator, or an owner-operator. The original intent of national legislation in vocational agriculture, basically that of making better farmers, is still a sound goal even though the social and technical environment in which agriculture operates has changed.

Agriculture has become an industry of specialists who need the best education if they are to succeed under present competitive conditions. Vocational agriculture must be ready and able to meet the demands of modern farming and the education necessary for its personnel which this implies. Students in vocational agriculture prepare for a variety of agricultural occupations. Some will be farm laborers, some farmers, and many will be in industries allied with agriculture. The question arises—would vocational agriculture be more effective if provision were made for differences in the students' mental alertness and in the educational program of students depending upon their placement opportunities?

This idea provokes a number of questions which should be answered before any generalizations can be at-



Edwin A. Tischbirek



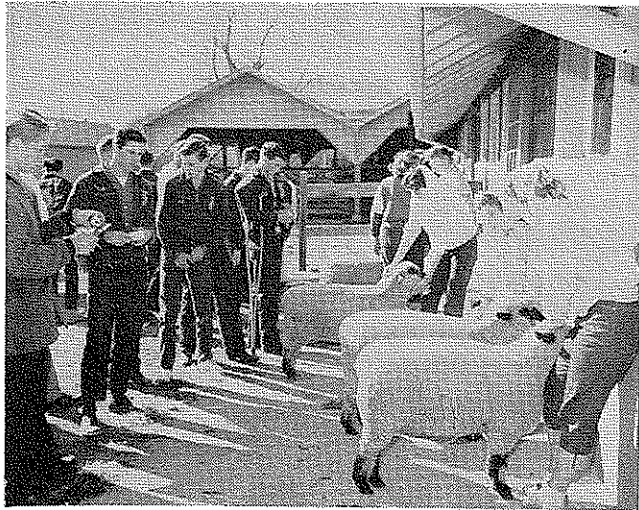
E. M. Juergenson

tempted. Would vocational agriculture benefit more students if provision were made for differences in the ability level of students? What are the optimum class sizes for an effective vocational agriculture program? Is the present supervised farming program meeting the needs of all students? In an effort to uncover data which might shed light on these problems, help was sought from a group of persons who are intimately involved in vo-ag, yet in a position to evaluate its purposes and operations in relation to the total school situation. These, of course, are the administrators in the various high schools conducting a program in vo-ag. In a recent study, the results of which are reported here, the judgment of administrators was used as the basis for obtaining data. This study polled a random sample (71) of California administrators who had vocational agriculture depart-

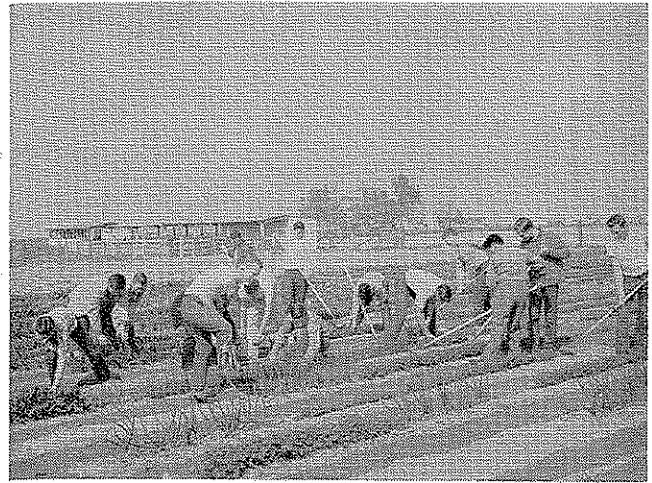
ments, asking for their opinions regarding vocational agriculture and practices employed in their schools.

Administrators cooperated well as an 80 per cent response (57) was obtained, although every question was not answered on each questionnaire. Many unsolicited write-ins indicated a keen interest in the study.

In reference to the objectives of vocational agriculture, 54 administrators favored a combination of college preparatory and terminal type of training, while only 3 favored terminal training as a single objective of the program. Assuming a combination was best, 37 felt that the emphasis should be on vocational training, and only 18 on academic training. Grouping students according to ability level, even if it meant putting freshman-sophomore, or junior-senior groups together, was favored by 44 administrators, although 12 disapproved. Many felt that a class in general agriculture was a means by which this could be accomplished. At least one course in general agriculture was offered by 18 schools and many others were considering implementing such a program. Regardless of how it is accomplished, administrators indicate that working to capacity should be stressed on all levels of instruction. This probably necessitates compensating for differences in student ability and maturity,



A typical FFA Field Day. Even though administrators felt too much effort was devoted to a few boys and to winning, most administrators believed the over-all program of FFA activities to be desirable.



These students are working on a school farm. Many of them and their parents live in labor camps and have little or no facilities available for home farming programs. Placement in agriculture for them in most cases will have to be other than production farming.

as well as differences in the objectives of the students.

Contrary to what might be assumed, FFA activities, in general, and fairs and shows, in particular, were considered over-emphasized by only 15 administrators. A considerable number (42) did not believe so. In some cases FFA activities have become so competitive that all extra effort has been devoted to winning. Every effort should be made to make the activity an educational experience for all students in the department, not to a limited few.

Only 10 departments out of 57 stated that 50 per cent or more of the students in their classes were of below average ability. Lower ability students retarded the over-all program according to 23 of the replies received. This may indicate some dilution of the program. On the other hand, a large majority (46 departments) stated that less than 25 per cent of their students were of above average ability. This could indicate that agriculture may not be getting a fair share of the better students. Let's ask ourselves why!

There were only 5 out of 52 departments instructing below average students separately, but 22 felt that they should be instructed separately; 32 disagreed. The respectability of agriculture courses is involved and

everything possible should be done to make them desirable to more of the better students. An extra agriculture instructor for either advanced or retarded students could not be justified by 49 administrators, although 10 departments admitted they promoted failing students along with their class. One explanation was that some agriculture classes are already so small that any further breakdown would be impractical from a student-teacher ratio standpoint. However, there is a possibility that if a potential enrollment existed it might be well to establish special courses and encourage more students to enroll. In regard to class size for below average students, 18 administrators were in favor of having 11 to 20 students per class; however, 31 made no recommendation.

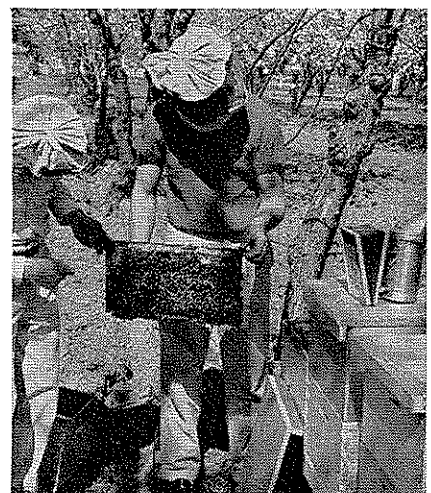
**Recommended Class Size for Below Average Students According to Administrator Opinion**

Class Size	Number of Administrators
21 or more .....	4
11 to 20 .....	18
10 or less .....	4
No Recommendation .....	31

There were 31 departments indicating at least 25 per cent of their students did not have adequate facilities

for farming programs and 15 had 50 per cent or more in this category. Employment on farms and in related fields during the school years was regarded by 31 administrators as an acceptable farming program, while 15 disagreed. This may indicate, from administrators at least, a trend away from emphasis on production projects alone. Evidence shows that vocational agriculture departments must re-evaluate the supervised farming program because there is only a slight majority (55 per cent) of administrators who are convinced that vocational agriculture students should be required to have productive farming programs.

It was almost unanimous (51 administrators) that agriculture department instructors should have an active part in counselling students to be en-



These students have bees as the major enterprise of their supervised farming program. Their parents own no land so they must utilize unique procedures in order to develop a desirable farming program. Teachers of vocational agriculture are challenged by such situations in order to meet the needs and interests of students who desire a career in agriculture.

**Recommended Optimum Class Size by Year According to Administration Opinion**

Vo-Ag class	Administrators recommending 10 or fewer students	Administrators recommending 11 to 20 students	Administrators recommending 21 and over students
Freshman .....	2	44	11
Sophomore .....	1	47	9
Junior .....	5	44	8
Senior .....	5	45	7

rolled in agriculture. Only 2 disagreed. Agriculture is an elective course and one that requires a close teacher-student relationship outside as well as inside the classroom.

Lack of equipment was not a problem in any department.

It was felt by 31 administrators that eliminating compulsory attendance would not appreciably decrease their agriculture class enrollment, however, 19 disagreed on this point. Many (32) agreed that a great deal more would

be accomplished by those students who did attend.

In summary, a majority of administrators felt that:

1. Vocational agriculture should be a combination college preparatory and terminal type of training.
2. Grouping students according to ability level was desirable to compensate for differences in ability and ambitions.
3. Working to capacity should be stressed for all levels and the academic respectability of agriculture classes needs to be upgraded.

4. Desirable agriculture class size should be between 11 and 20 students.
5. A broader interpretation of farming programs is needed and consideration should be given to include employment in related fields.
6. Instructors in agriculture departments should have an active part in counselling students to be enrolled in vocational agriculture.
7. Eliminating compulsory attendance would not appreciably decrease agriculture class enrollments and possibly more would be accomplished by those students who did attend. □

## Technical Agriculture for Teachers of General Agriculture

LEE O. BAKER, Asst. Prof. of Agriculture, Western Michigan University, Kalamazoo



Lee O. Baker

ALTHOUGH the total population of the United States has steadily increased from 1933 to 1957, the farm population has decreased from 25.8 per cent of the total population in 1933 to only 12 per cent in 1957. Even though there were substantial increases in mouths to feed and bodies to clothe, a reduction in farm population has been made possible by mechanization and other advances in agriculture. As a result of these changes an increase in farm output has occurred with less human effort required to produce it. Obviously then, while the number of persons on farms is declining, agriculture's place in our national economy is as important as ever, if not more so.

Certain changes are necessitated as increased numbers of the farm population move to the city, or become part-time farmers and work part-time or full-time in the cities. Areas which were once rural are becoming "rurbanized" or urbanized to a large extent as many city residents move out into the country to build new homes. Thus, many high schools which were at one time definitely rural find a smaller and smaller number of their students coming from the farm. This in turn means that many schools find less demand for vocational agriculture programs in their schools. An increasing number of pupils, however, want to study agriculture, and many school boards and administrators take the

attitude that no one should be denied the right. The result is that classes in vocational agriculture frequently contain some boys (non-farm) who are misplaced when enrolled in vocational agriculture. Provision should be made for non-farm boys and others, that is, girls, in general agriculture.

Just what are the objectives of general agriculture and vocational agriculture and how do they differ? According to the National Vocational Education (Smith-Hughes) Act (Public Law No. 347, Sixty-fourth Congress—S. 703), Section 10, the objective of agricultural education is stated in part as follows:

... That the controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and be designated to meet the needs of persons over fourteen years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home.

A writer in the past pointed out the difference between vocational and general agriculture, stating that vocational agriculture stresses production, whereas general agriculture should be taught or directed to the understanding stage rather than the doing stage characteristic of vocational agriculture. Students who do not intend to farm are interested primarily from a general information standpoint.

The basic objectives and purposes of general agriculture, then, are to teach appreciations and understandings rather than specific information and certain skills and abilities. Instruction in general agriculture at the high school level could orient students by giving them a coordinated picture of the place of agriculture in the national economy. It may also help to

serve as a basis for recruitment of personnel to alleviate the great demand that presently exists for agriculturally trained personnel.

Because of vocational agriculture's dominant role in agricultural education, many studies have been made in the field of vocational agriculture, but few have been made in general agriculture. Thus, if general agriculture is to be made available to a greater number of students, there is a need for study to determine what the content of a course in general agriculture at the secondary level should include, and what training in technical agriculture at the college level is necessary for the preparation of teachers of general agriculture.

Thus, this study was undertaken to determine which areas of technical agriculture are needed in a curriculum for preparing teachers of general agriculture and the related areas of instruction which would contribute to such technical training.<sup>1</sup> Another question for which an answer was sought was: "What areas of agriculture are believed to be of greatest importance and should be included in instruction at the high school level by teachers of general agriculture, people engaged in occupations in agriculture and high school principals."

*Method*—Check lists were sent to 87 schools known, or thought to be, teaching general agriculture in Michigan in the 1957-58 school year. The check lists were completed by the teachers of general agriculture. Seventy-two, or 82.7 per cent, were returned. Sixteen of the 72 were from schools which were not offering general agriculture at this time. Personal interviews were conducted with 50 high school principals and 50 people engaged in occupations in agriculture in southern Michigan who were chosen at random.

(Continued on page 127)

<sup>1</sup>Baker, Lee O. "A Basis for Improving Technical Instruction for Persons Preparing to Teach General Agriculture in Michigan." Thesis, Ed.D., 1959, 156 pp. Michigan State University, East Lansing, Michigan.



*Findings and interpretations*—Teachers of general agriculture and people engaged in occupations in agriculture differed significantly at the  $P_{.01}$  level of confidence in their judgments of the importance to the teacher of instruction in various areas of study. The teachers considered farm crops more important than did the people engaged in occupations in agriculture. On the contrary, people in agriculture considered agricultural economics, agricultural marketing, and farm management more important than did the teachers.

The Spearman rank order correlation between the two above mentioned groups is a positive .61 which is highly significant at the  $P_{.01}$  level of confidence on the values of various areas of related instruction to the teacher. Biology, botany, chemistry, and mathematics ranked high with both groups.

Teachers of general agriculture, high school principals, and people in agriculture all selected and ranked five suggested topics which they thought should be included in a course in general agriculture at the secondary level. A tabulation of the rankings of all three groups showed the ten most important topics in order, to be: (1) Soil: its importance and conservation; (2) The important farm animals and how they are grown and marketed; (3) Interdependence of farm and city people; (4) The important farm crops and how they are grown and marketed; (5) The land and agriculture of this community; (6) The farmer's economic and political problems; (7) The occupations in and related to agriculture;

(8) Growing a home vegetable and flower garden; (9) Farmer organizations: their purposes, functions and problems; and (10) Forests: their importance and conservation.

A large majority of the high school principals and people in agriculture recommended that most or all schools should offer more agriculture. It seems particularly noteworthy that none of the high school principals indicated that no agriculture whatsoever should be taught. The most desirable relationship between general and vocational agriculture in the high school curriculum according to the findings of this study would be to offer both for appropriate students.

*The following conclusions* were reached as a result of this study:

1. It appears from the proposed topics to be included in a course in general agriculture at the secondary level that the economic aspects of agriculture are of considerable importance and that training programs for prospective teachers of general agriculture might well give special consideration to this aspect.
2. All of the groups ranking the various topics which might be included in a course in general agriculture at the high school level placed the study of soils ahead of all other topics. Thus, it seems that a study of soils is of fundamental importance in the teaching of general agriculture at the high school level.
3. Teachers of general agriculture who participated in this study, and who ranked the topics they

considered to be of most importance, tended to place greater emphasis on the understandings of the technical aspects of agricultural production than on its economic aspects.

4. The findings of this study indicate that people engaged in occupations in agriculture tend to place the greatest importance on those aspects or topics which are related to the economics of agriculture.
5. Based on the responses of the high school principals and the people engaged in agriculture who were interviewed in this study, it would seem that more high schools in the state of Michigan should include agriculture as a part of their curriculum.
6. If the findings of this study relative to the relationship that should exist between general and vocational agriculture are valid, there is a definite place for general agriculture in the high school curriculum even though vocational agriculture is being taught, and the teaching of one does not fulfill the needs of the other.
7. If one assumes that high school principals and people engaged in agriculture are qualified to evaluate the general public's information regarding agriculture and some of its problems, the findings of this study indicate that the general public is poorly informed on matters related to agriculture, especially the economic problems facing farmers. □

## Conducting Comprehensive Education Programs for Beginning Farmers

LLOYD J. PHIPPS, Teacher Education, University of Illinois



Lloyd J. Phipps

WHY is the number of public school instructional programs for young farmers so small? Why is the enrollment of young farmers in courses designed for them so limited? In addition

to the meager number of programs and the small enrollment of young farmers, teachers of vocational ag-

riculture often report that attendance in their courses is irregular and that the percentage of dropouts is high.

Empirical experience indicates and research studies confirm that the period when young men are getting started in farming necessitates learning and is full of "teachable moments."

Why, if teachable moments are abundant, does young farmer education receive so little attention and create so many problems?

One hypothesis is that we have not recognized the different farming status groups among young farmers and have not designed educational programs to meet the specific needs of each group. A second hypothesis is that the courses offered for young farmers have been so short that they provide instruction relating to an infinitesimal portion of the problems confronting the young farmer enrollees.

Five teachers of vocational agriculture in Illinois analyzed the above problems and hypotheses and worked with the writer in developing and trying out various procedures designed to eliminate some of these problems and "shortcomings" in young farmer education.<sup>1</sup>

(Continued on page 128)

<sup>1</sup>Don Coil, John Craddock, L. R. "Bill" Frye, Charles Schettler and Harold Warner.

In their young farmer courses, they agreed to differentiate between the farming status groups of young farmers and enroll only beginning farmers. Beginning farmers were defined as young men who had taken some definite steps to become established, young men who had an opportunity to get started soon, or young men who had been farming only one or two years as renters, owner-operators or in partnership.

They agreed to inventory the enrollees to determine the size and the efficiency status of their various farming activities. In the process of inventorying present status, the teachers agreed to attempt to find out the farming goals of the enrollees.

After the inventory of present status and goals, the teachers also agreed to attempt to plan with the enrollees a three- or four-year, year-round course of study that would help the young farmer enrollees realize their goals.

Some of the teachers participating in the project were concerned regarding the number of prospective enrollees available in their communities if enrollment was limited to young men in the beginning farming status. All of the five teachers cooperating in the project had veteran on-the-farm programs in operation. An adequate, but not large, number of enrollees, however, was obtained in each center.

Another concern of the teachers was whether the enrollees would accept and help plan a three- or four-year, year-round course. The previous experience of certain Illinois teachers indicated that young farmers often

objected to long-time, year-round courses. The teachers in this project, however, found that their young farmer enrollees did not object to the development of a long-time, year-round course plan. Why didn't they object? The teachers involved believed that the lack of objections was because the inventory of present status and goals which they had used at the start of their programs had "highlighted" the need for a three- or four-year course. Each enrollee before the first meeting of the course, or soon after, was interviewed by the teacher of his course for two to four hours. During this interview, an inventory of present status and goals was completed. The completion of this inventory of present status and goals provided the basis for later course planning.

After the inventories of present status and goals had been obtained through personal interviews by the teacher, they were summarized on 3' x 4' charts. The inventories were summarized on charts so that the summary would be more useable in the classroom planning of the course. The inventorying process and the summary of the inventories on charts created interest among the enrollees and showed them that their needs were so extensive that at least a three-year, year-round course was needed.

*Course Plans.* The charts summarizing the inventories and goals of the enrollees, see Form 1, were used in the teacher-student planning of the content of the courses. The charts motivated thinking, interest, and dis-

ussion. After problem areas were selected for study, the year placement of the problem areas in the course was discussed by the enrollees.

None of the five teachers using the procedure outlined<sup>2</sup> had any difficulty in getting the young farmers interested in planning their course content for three years instead of one year. The use of the status inventory,<sup>3</sup> the goal inventory,<sup>4</sup> and teacher-student planning created interest and showed the enrollees that their educational needs were so extensive that at least a three-year, year-round course was needed.

After the content of the courses had, through teacher-student planning, been decided, the teachers arranged the content seasonally for each year of the course. Their plans were then presented to their young farmer groups for approval, rejection, or suggestions.

The content of the courses typically included the following units:

1. Crop production
2. Livestock production
3. Credit
4. Farm records and budgets
5. Home and home ground improvement
6. Buildings, machinery, and equipment
7. Law and farmer
8. Insurance
9. Farming status
10. Gardens
11. Farm management
12. Participation in groups
13. Social and recreational activities for farmers
14. Schools and rural people
15. Parliamentary procedure
16. Home orchards
17. Community improvement

There were many similarities and many differences in the content desired by the young farmer enrollees in the five centers. The differences reflected very well the differences in the local situations and the previous concepts developed by the young farmers in the five centers.

Most of the groups planned more content than they could study in a three-year period. The result was that four of the five groups con-

Form 1. Reproduction of a Chart After Teacher-Student Planning of Problem Areas

Situation	Needs Indicated Problem Areas	Course Plan		
		Urgency		
		This Year	Next Year	Following Year
Corn	Increasing yields economically			
Little change in acres planned	Preparing seed bed			
	Planting			
Yield increase planned—5-15 bushels	Determining best use of fertilizers			
Present yields—45-85 bushels	Spraying for weed control			
	Harvesting			
	Storing and marketing			

<sup>2</sup>See full report of study for a complete discussion of procedures used in organizing and conducting the courses.

Phipps, Lloyd J. *A Comprehensive Agricultural Education Program for Young Farmers, A Case-Group Investigation of Procedures for Conducting, in the Public Schools, Comprehensive Agricultural Education Programs for Beginning Farmers*, Agricultural Education Division, College of Education, University of Illinois, 1959, 42 pp.

<sup>3</sup>*Ibid.*, p. 127.

<sup>4</sup>*Ibid.*, p. 127.



tinued for more than three years. One group continued for a full four years. All but one of the groups met more than twenty times each year, exclusive of special events such as tours and socials.

A question that soon arose in the project was whether the course content being planned would provide systematic instruction. In analyzing this question, it was apparent that the content discussed at meetings could be taught so that it would be related, unified, interacting, and interdependent if the predetermined objective, getting started successfully in farming, was emphasized. Also, if this objective was emphasized, the understanding of the instruction at the meetings would usually be dependent on the instruction provided at previous meetings.

The fact that the content was cross-sectioned, to a certain extent, did not eliminate the possibility of systematic instruction in the young

farmer courses any more than it eliminates systematic instruction in cross-sectioned high school courses. It is, however, easy to allow a course for young farmers organized on a cross-sectioned basis to degenerate into a nonsystematic series of meetings. The safeguards are a dedication by the teacher to systematic instruction, a knowledge of the pressures involved that motivate nonsystematic instruction, and frequent evaluations regarding whether the instruction being provided is systematic.

*Conclusions.* Experience in five centers with procedures for organizing and conducting a three- or four-year, year-round course for young, beginning farmers produced the following conclusions:

1. Status in farming as a basis for enrollment in the young farmer courses produced relatively homogeneous groups.

2. Beginning farmers seemed to want their wives to enroll with them and the wives seemed to welcome the opportunity to enroll.
3. An inventory of present status of farming activities and the establishment of goals for each of these activities provided the basis for long-time teacher-student course planning.
4. The problems of the beginning farmers extended over the whole area of farming and farm life, and they desired a course of study that included most of these problems.
5. Year-round meetings seemed to be accepted readily after the three- or four-year courses had been planned.
6. It was possible by careful organization to provide systematic instruction in the three- or four-year courses organized on a cross-sectioned basis. □

### Vo-Ag Teacher in strategic position in - - -

## Acquainting the Community with The School Program

JOHN L. YATES, Vo-Ag Instructor, Town Creek, Alabama



John L. Yates

THE teacher of vocational agriculture is in one of the better positions of school personnel to acquaint the people of the community with the total school program. He has a chance to meet

more of the people in the outlying areas of the school community through his farm and home visits. Often he is the key link between the school and community other than the students themselves. It, then, becomes his duty and responsibility to acquaint the people of the community with the school needs and possibilities.

Each teacher probably goes about acquainting the people in the community with the school program in a different manner. The personality and experience of each teacher of vocational agriculture would be the determining factors in which method he would use to obtain the desired results. However, a few general rules

can be suggested which would apply in most situations.

*First* of all, a teacher of vocational agriculture should know the community in which he is working. Through careful study he should learn and understand what goes on in the community. All communities have mores and customs, factions and cleavages, needs and values, all of which have to be known and understood by the teacher if he is going to do a good job of presenting the school program to the people. He should know the key leaders in the community and know how to approach them. These people can do more with the understanding and response of the people than any others. From these key people the teacher of vocational agriculture can usually find out the prejudices and frictions that might exist in the community and how each situation might be dealt with to obtain the best possible cooperation with the school.

*Secondly*, the teacher will have to know how to work with people of different ages, classes, political and religious philosophies. It is natural

and desirable for human beings to be different, especially in a democratic society such as ours. The teacher should not get involved personally with controversial issues in the community, but, instead, should steer clear in order to be able to work with all groups. Often, a social distance exists between some community groups and some of the teachers. The teacher of vocational agriculture should strive to break down this barrier to good teacher-community relations if it exists. A teacher can often shorten the distance that may exist between teachers and the community by cultivating friendships with different groups in the community. It has been said that one of the qualities of a good teacher of vocational agriculture is being able to get the people of the community to help design, to accept, and to help carry out the vocational agriculture program. Since he works with many groups, he is also in a better position to help promote the total school program than any other teacher. People like to help plan their school's programs.

*Third*, the teacher of vocational agriculture has an excellent opportunity to work with organized agencies and professional groups in the community. The community and county agencies can be used to help promote the total school program very satisfactorily since most of the community leaders and civic-minded people of the community will be

members of these agencies and of civic groups. The teacher should attend as many of these meetings as possible and should take an active part in them. In the meetings many opportunities will arise whereby the teacher can speak out on the school program. The teacher should always be ready to speak, using reliable and accurate information. Many fine community wide projects for the school have arisen out of just such meetings. A wise teacher will not dominate these meetings, but will work quietly behind the scenes. In many cases these groups can be stimulated to action by just a few well-chosen words.

In one instance, a teacher of vocational agriculture told a member of a farmers' group about the need for a purebred pig chain for his FFA Chapter. At the very next meeting of the group this member brought the matter to the group for discussion. The group then voted enough money to buy two gilts to establish the pig chain. Most of the group did not realize that it was really the teacher's idea but thought it came out of the group. This is an illustration of how one teacher used a key leader to advantage in promoting a school project.

*Fourth*, the good teacher of vocational agriculture can use the FFA Chapter very effectively in promoting the whole school program. Usually a good FFA Chapter will carry on several community service projects, such as park improvement and rat control campaigns. When the chapter carries out these projects and the community sees the benefits of them, the people tend to have a more favorable view toward the school. Anything done to improve the public view toward school is a step toward getting the people to realize the needs and the possibilities of the school. FFA state contests are also good ways of promoting better community relations. Many chapters use local leaders to judge the eliminations necessary in the local beginnings of state contest entries. In this way they visit the school and thus may see things they did not know existed, such as crowded classes and lack of equipment. The school visit also helps them understand the work the school is striving to accomplish. Most criticism and resentment of schools seem to be brought about by people who are poorly informed and do not understand the school program. In one instance, much good was done for a school when one of the FFA

members won the State Star Farmer award. The people of the community took pride in the boy and the school for the statewide publicity resulting from this.

*Fifth*, it has been said that if a teacher can appear in public and do it well, he can promote the school program in many ways not available to the teacher who never appears in public. This is especially true of the vocational agriculture teacher. It is important that the teacher attend the meetings in the community, including church services. Unless the teacher is an active participant in community affairs, he cannot expect the community to be enthusiastic about his program and that of the total school.

*Sixth*, possibly the most important thing that a teacher of vocational agriculture must know if he is to promote a school program in a community is the whole school program and how his own program fits into the larger total school program. He must be able to discuss the total school program capably and convincingly with the people he contacts daily. To be well informed on the whole school program involves quite a bit of study on the part of the teacher. This information can be learned in several ways. Possibly the most important is holding conferences with the principal. The principal is usually more aware of the whole school program than any other person. He is in constant contact with each teacher, knows each teacher's program, and can inform each teacher about the needs of all other departments in the school. Many times the principal and vocational agriculture teacher work together in presenting the whole school program to the community. In-service programs, such as faculty studies, are valuable tools in keeping the teachers informed on the school program. From these studies often emerge problems for discussion that will give the vocational agriculture teacher an insight into the problems of other teachers.

*Seventh*, the classes for adult farmers carried on by the vocational agriculture teachers provide one of the most effective media in presenting the total school program to the community. In these classes, the teacher has the opportunity to discuss school problems along with the usual subject matter covered. The voca-

tional agriculture teacher, through training and experience, must know how to plan his class meetings so that controversial issues do not creep into the sessions. This is usually accomplished by having a definite program, fully planned, interestingly presented and discussed, and time allotments utilized fully. Often times a discussion period can be planned at which times certain phases of the school program could be discussed. An example of this is that recently a high school was put on accreditation probation because of heavy teacher loads and poor library facilities. One whole adult class meeting was used to discuss this problem. Out of the meeting, a committee was appointed to study the problem. The committee decided upon some probable solutions which are now working for the benefit of the school and community. This is an excellent way to cause the community to realize the importance of the school program, simply by making them a part of it and letting them work for the betterment of the school.

*Eighth*, a vocational agriculture teacher must be well-versed in objective thinking if he is to handle the controversial issues that will arise in his dealing with the community. It has already been mentioned that teachers should not get involved personally with controversial issues, but on occasions the issues arise without provocation. Many people seem to like to put teachers on the spot so to speak, and, if the teacher has the ability to look objectively at controversial issues and criticism, he will more nearly remain in good favor with all groups in the community.

*Ninth*, the teacher should be very careful of the role he plays in relation to politics. Most communities take local politics very seriously, and if the teacher is to be an influence with all groups in the community, he must remain as nearly neutral as possible. By doing this he can help sell the school program to both political factions with good results.

*Tenth*, the personality of the teacher will determine to a large extent how successful he will be in helping the community understand the total school program. Therefore, the teacher should make every effort to improve his personality. Each of the nine general rules discussed previously will help, but unless the teacher has the personality to first sell himself, his efforts at selling the

school program will probably end in failure. A teacher who does not become a part of the community, puts down no lasting roots, fails to cooperate in community efforts, and takes no interest in community problems will likely find that the community takes no interest in his problems. The more friends the teacher

makes in a community, the more friends the school will have.

A school is judged by the kind of teachers that compose the school; therefore, a teacher of vocational agriculture has a great responsibility to the school to always present a favorable view of his life, work, thinking, and actions.

The points discussed herein were based on the assumption that some lay people in each community do assist in planning for better education, that they want to know what is happening to the plans, and yet that many people in each community do not take the time to help plan and therefore do not understand the total school program. □

## A Study of the Kansas Future Farmers of America District Leadership Schools\*

GEORGE A. ROBINSON, Vo-Ag Instructor, Grinnell, Iowa



George A. Robinson

DOES the training of FFA chapter officers for leadership adequately prepare them for their duties? Is sufficient emphasis being placed on leadership at local, district, and state levels? The above questions and others prompted a study of the Kansas Future Farmers of America leadership schools.

Leadership and leadership training activities must have been uppermost in the minds of those who assisted in forming the early "agricultural clubs" for vocational agricultural students. This thinking was continued by those who, during the summer of 1928, drafted a temporary constitution, purposes, and ceremonies, using Virginia and other states as their guide in setting up the national organization of Future Farmers of America. One has but to examine the official FFA manual to find references to leadership and its development.

District FFA leadership schools in Kansas date from 1931, when the Shawnee Mission Chapter, with Harold D. Garver, Advisor, sponsored the first school. Since that time they have been an annual event in Kansas. The purpose of this study was to poll the opinions of the teachers of vocational agriculture on the subject of the Kansas leadership schools which had been conducted during the years 1952 through 1957. The opinions were obtained by questionnaires sent to the teachers of vocational agriculture. Of 216 mailed, 157 (72.6%) useable questionnaires were returned.

A summary of the study is given in three parts, namely: activities which have been in use, activities which might be included in future state leadership training, and activities which might be included in future district level leadership training.

### Present Activities

The responses indicated that 144 of the 157 chapters (91.7%) had attended one of the leadership schools during September of the 1956-57 school year. Thirteen did not attend (8.3%). Distributed over the preceding five-year period, attendance was as follows: attending one of the five years—3 per cent; attending three of the five years—2 per cent; attending four of the five years—10 per cent; attended all five years—75 per cent. Regarding participation in the ritual contest, answers were: no participation—1 per cent; one year—2.5 per cent; two years—6 per cent; three years—5 per cent; four years—9 per cent; five years—65 per cent. In the information contest, participation results were: no participation—1 per cent; one year—3 per cent; two years—3 per cent; three years—6 per cent; four years—13 per cent; five years—61 per cent.

In the above data, 15 schools (9.5%) were not included as they had offered vocational agriculture less than five years. In attendance and participation, as well as for later comparisons, some advisors failed to answer every question or were undecided on choice of answers, which accounts for a slight discrepancy in total percentages.

A variety of reasons were given for non-participation in the leadership school activities. The most frequently used reasons were that "of-

ficers were not interested" and "conflicting activities."

There was some question relative to adequacy of pre-service training of vocational agriculture teachers for preparing their FFA officers for the leadership schools. Their replies indicated that 60 per cent felt their training was adequate, 31 per cent felt it was inadequate and nine per cent were undecided.

Concerning the purposes of the leadership school, the majority of the FFA advisors selected the following: 1. Broaden knowledge of the FFA; 2. Ritualistic improvement; and 3. Exchange of ideas on building and executing a worthwhile program of work. Seventy-six per cent of the instructors said the schools accomplished their purposes while 8 per cent were of a negative opinion.

In response to a question concerned with whether sufficient emphasis was being placed on leadership, the chapter advisors responded with: state level—59 per cent yes and 24 per cent no; district level—69 per cent yes and 19 per cent no; local chapter level—55 per cent yes and 33 per cent no.

A number of instructors pointed out the importance of emphasizing the Future Farmers of America during each of the years a boy is enrolled in vocational agriculture. Some mentioned that each year's training was directed in anticipation of eventual participation as an officer in the leadership schools, especially in the information contest. Most advisors, however, began training their FFA officers for leadership school activities after school opened in the fall.

Certain training procedures used at the leadership schools have been handled as special assignments. All were considered to be of value. These demonstrations indicated were:

\*Master of Science study completed at Kansas State College, Manhattan, 1957.



Green Hand Degree, Chapter Farmer Degree, Parliamentary Procedure, Proper Use of the Gavel, and Building the FFA Emblem. Not many criticisms were given about the use of demonstrations. Some of them were that "they took too much time," that "to be effective parts must be learned," and that "instructors grading papers had no chance to see them."

#### Future State Level Activities

The next part of the study related to teacher opinions of activities which might be included in future FFA leadership training on the state level. These activities, and responses to them, were: 1. Hold state FFA officer training school during a summer month—yes, 43 per cent; no, 29 per cent. 2. State FFA officers travel week tour over Kansas—yes, 43 per cent; no, 22 per cent. 3. Hold state FFA convention at a time not conflicting with dates for state high school judging contests—24 per cent yes; 62 per cent no.

Other suggestions made by vocational agriculture instructors included state FFA camp, regional state-vice presidents, state officers give demonstrations at district leadership schools, two or three day camp on district

level for local officers, state officers visit each chapter, extend trips outside state to joint group meetings of other chapters, and use state officers and state supervisory personnel in some manner at state fair.

In response to the question regarding whether they wished to continue holding the FFA District Leadership Schools in the fall, 93 per cent of the instructors favored that time while 3 per cent did not.

The amount of time to devote to future leadership training on the district level was also considered. Forty-one per cent desired an afternoon and evening meeting, 33 per cent the mid-afternoon and evening meeting, and 27 per cent the all-day meeting.

#### Future District Level Activities

The final part of the study asked for opinions on events which might be included in future district level leadership training. To the activity that officers receive special instruction for the duties of their respective offices, the percentage was 94 per cent yes and 1 per cent no; give more attention to building a chapter program of work—78 per cent yes and 13 per cent no; more use of state FFA officers and state supervisory personnel—57 per

cent yes and 18 per cent no; a district FFA organization with officers as an aid to local officer training—43 per cent yes and 26 per cent no. A few instructors suggested that more emphasis should be placed on the event being a "school" and not a "contest."

As background reading material for making the study, state supervisors of agricultural education or the FFA Executive Secretary-Treasurer in the 13 states comprising the North Central Agricultural Education Region were asked for materials on their leadership training programs. Eleven mailed information on the subject. Leadership training for chapter officers for this region may be summarized as follows: 1. Leadership training is left to the discretion of local schools or groups of schools. 2. Leadership training is confined to district organizations and local school. 3. State leadership meetings or camps are conducted for chapter officers during the state convention or sometime during the summer. 4. Leadership training sessions are held in the fall during afternoon or evening, or both, as follow-up to state leadership meetings or camps. 5. State directed district leadership training schools are held in fall for chapter officers. □

## Up-Grading Agricultural Teacher Education in the Philippines

VIRGINIO C. JUAN, Agricultural Education Supervisor, Bureau of Public Schools, Manila



Virgilio C. Juan

SIX institutions are presently engaged in training teachers of agriculture in the Philippines. They are: The University of the Philippines, Central Luzon Agricultural College, Mindanao Agricultural College, Baybay National Agricultural School, Mountain National Agricultural School and Araneta University (a private school).

In recent years all of the above institutions with the exception of Araneta University have received extensive assistance in the form of buildings, equipment, personnel training and technical services under the National Economic Council-International Cooperation Administration assistance program. In addition, teams of American specialists working under the terms of contracts with Cornell University and Stanford University

have been assisting in the improvement of teacher training programs at four of the colleges.

With so much reorganization taking place, the Agricultural Education Division of the Bureau of Public Schools believed that agreement on the minimum standards which should be met by institutions training teachers of agriculture would serve the common welfare. To attain this objective, officials of the Agricultural Education Division of the Bureau of Public Schools sponsored conferences which were attended by the agriculture teacher trainers and American specialists in agricultural education serving in the Philippines. Common problems in agricultural education were discussed and minimum standards to be met in the training of agriculture teachers were agreed upon by all institutions and agencies concerned. During the Second Annual Agricultural Teacher-Education Conference held on October 28-31, 1958 at Baybay, Leyte, some of the most important agreements reached

for up-grading agriculture teacher training were the following:

#### Terms and Their Use in Teacher Training

For purposes of uniformity, the agriculture teacher-training institutions shall adopt and use the following terms:

1. *Student teaching* instead of *practice* or *cadet teaching*.
2. *Student teacher* instead of *cadet teacher* or *practicing teacher*.
3. *Cooperating teacher* instead of *critic* or *model teacher*.
4. *Cooperating school* instead of *training center* or *school for practice teaching*.
5. *Teacher-trainer* instead of *supervisor of practice teaching*.
6. *Pre-service training* to include any and all types of training taken by the student teacher while in an agriculture teacher-training institution.
7. *In-service training* to include any and all types of training taken

by a teacher while he is in the teaching service.

### Agricultural Education Curriculum

In view of the set-up in the national agricultural schools where several agriculture and farm mechanics teachers are employed in the same school, it is desirable that teachers have fields of specialization. To achieve this end, the agriculture teacher-training curriculum shall have the following characteristics:

1. The agricultural education curriculum shall permit students to pursue as their major any of the following fields: (a) Agronomy, (b) Animal Husbandry, (c) Farm Mechanics, (d) Applied Agricultural Sciences and Mathematics, and (e) Elementary Agriculture and Industrial Arts.

2. The agricultural education curriculum shall require a minimum of 150 units for graduation and provide a leeway of 10-14 units of electives.

3. The agricultural education curriculum shall require as minimum units in each of the following:

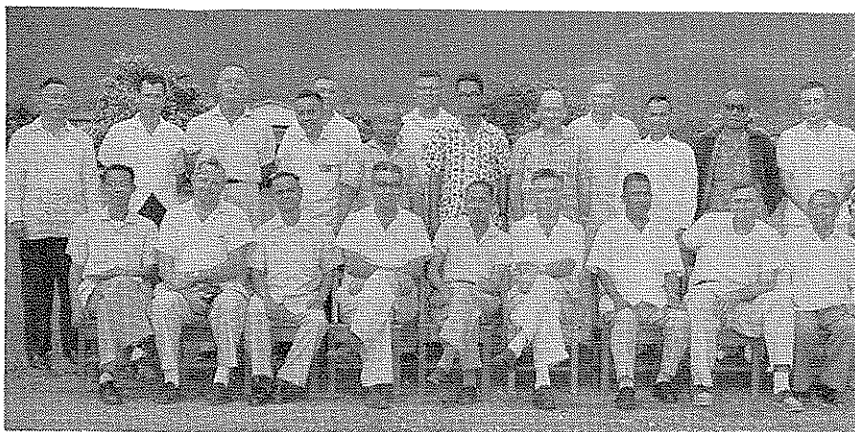
- a. Technical Agriculture: .. 52 units
  - (1) Agronomy and Horticulture ... 12 units\*
  - (2) Animal Husbandry .... 12 units\*
  - (3) Agricultural Engineering ... 12 units\*
  - (4) Agricultural Economics .... 6 units
  - (5) Major Field of Specialization .. 13 units
- b. Sciences and Mathematics: ..... 48 units
  - (1) Biological Sciences ..... 20 units
  - (2) Chemistry (8) and Soils (3) .. 11 units
  - (3) Physics (8) and Mathematics (3) 14 units
  - (4) Social Science ..... 3 units
- c. Languages: English (12) and Spanish (12) ..... 24 units
- d. Professional Education .. 22 units
- e. Electives: ..... 13 units

### Selection of Agricultural Education Students

1. In selecting students to be trained as agriculture teachers, preference shall be given to secondary agricultural school graduates and graduates of public general high schools who studied agriculture for at least two years and who have had two or more years of farming experience after reaching the age of 12 years.

2. Only those who are certified to belong to the upper 50 per cent of the class when graduated and who passed an interview and entrance examination shall be admitted for training as agriculture teachers.

\* (1) or (2) or (3) may be reduced to 9 units.



Filipino and American (ICA) agriculture teacher trainers worked together to up-grade agricultural teacher education during the Second Agriculture Teacher Education Conference at Baybay, Leyte: Seated in the front row (left to right) are: Juan Viray, Guy Timons, Amado C. Tolentino, Harold Kugler, Jose Crisanto, Herbert Anderson, Virginio C. Juan, Charles Bryant, and Serafin Villodres. Standing in the back row (left to right) are: Martin Jarmin, Donald Green, Lewis Taylor, Celestino Habito, Warner Smith, Julian Mamaril, James Wall, Emilio Gamatero, John McClelland, Alvin Overland, Francisco Lagahit, Felix Salcedo and Harold Cushman. Not in the picture were Crispin Cabanilla and Willard Kaiser.

3. The selection and screening of students in the agricultural education curriculum shall be continuous so that the total number of new agriculture teachers available for employment shall equal the number employed by the Bureau of Public Schools and other agencies during the previous school year.

### Competencies of Students and Graduates

1. All institutions training agriculture teachers shall require, for graduation, satisfactory performance of certain minimum competencies which shall be in the "Manual of Competencies" developed and adapted by each institution concerned. The competencies shall be classified and weighted. At least 80 per cent of the skills required in areas which the prospective teacher plans to teach and at least 70 per cent of the points in other areas shall be completed.

2. The manual of competencies shall be a part of the school record of students and graduates and a certified copy of the "Profile Sheet" from the manual shall be issued when required.

### Training Staff, Facilities and Equipment

1. There shall be an adequate number of training staff. They shall hold bachelor of science and masters degrees; be professionally trained and qualified to teach college level courses and conduct research and in-service training activities. They shall have taught successfully in agricultural schools, for five years, the course or courses which they are to teach in the teacher training department.

2. There shall be adequate buildings for all the needed offices, classrooms, laboratory, library, animal sheds and storage space for the various activities and projects.

3. There shall be sufficient acreage for various crops and livestock to permit the employment of approved practices and the use of major farm equipment.

4. The school projects shall be adequate for instruction and shall bring economic return to the institutions.

5. There shall be sufficient farm machinery and hand tools to be used by students in the various activities which shall enable them to acquire the desired skills listed in the "Manual of Competencies."

### Student Teaching

1. At least eight weeks of student teaching (not less than six weeks of which is conducted off-campus) shall be prerequisite for graduation.

2. Off-campus student teaching shall be conducted in cooperating schools which meet certain minimum standards.

3. Cooperating teachers should be professionally trained as agriculture teachers and should have successfully taught vocational agriculture or elementary agriculture and industrial arts for at least three years prior to their selection.

4. There shall be one teacher trainer to supervise every 20 student teachers, and he should visit each student teacher at least twice during the student teaching period.

### Other Agreements Reached

1. Agriculture teacher-training institutions shall conduct annual in-

service workshops of at least five days duration for the up-grading of cooperating teachers. Expenses for such workshops shall be borne by the teacher-training institution concerned.

2. All agriculture teacher-training institutions shall undertake research activities. They shall publish the results and findings of research for the

information of other agricultural schools and colleges.

3. All agriculture teacher-training institutions shall set up appropriate guidance and counselling services and train the prospective teachers in rendering effective guidance and counselling work to secondary students.

4. All the agriculture teacher-training institutions shall assist the Bureau of Public Schools in keeping up-

to-date data on the placement of graduates from the agricultural education curriculum.

The curriculum and minimum standards for agriculture teacher education have now been determined. The next step is to implement that which has been agreed upon, and to evaluate the procedures and practices employed. □

## What Direction in Curriculum Development?

E. V. WALTON, Teacher Education,  
Texas Agricultural and Mechanical College



E. V. Walton

AT the risk of being branded a visionary or soft school apostle, I very sincerely set forth a few personal and professional opinions regarding the direction we seem to be following in curriculum development in many of our colleges today. I do not suppose there has ever been a time when it was so important to be right and so fatal to be wrong and with less certainty as to either.

### Education for World Affairs?

First of all, let me state that one overriding consideration is the development of the kind of citizens needed in today's troubled and chaotic world. We are in a marked state of confusion about the direction education should take. Technology is important but a highly advanced state of technology alone does not assure our security or survival. The United States is an exceedingly provincial nation which has been suddenly thrust into the role of world leadership. It is obvious that we are not doing very well at it. We are woefully inept in communications, interpretation, world and national economics, political geography, social anthropology, and basic appreciation and understanding of the strengths and weaknesses of our cultural heritage.

We live in a world with a population destined to reach 600 billion. Among these people is China with 650,000,000 people representing the most dynamic and threatening Communist society in existence. Add

Russia, possibly India, and the others on the fringe and consider the precarious imbalance. No possible amount of advanced technology can be sufficient to guarantee the elimination of the minatory probabilities. Rather, we may have to depend more largely on our ability to communicate ideology to the internal mass of restless millions within these ominous societies.

Too often, we assume that our "neighbors" are inept and inaccurate in gauging our strengths and weaknesses. I quote from a captured document addressed to the Chief of Communist Intelligence. This document was captured by American forces in the Korean war. Stripped of its dialectical dogma, it still holds a rather appalling amount of truth.

### An Estimate of Young Americans

"Based upon observation of American soldiers and their Officers captured in the war for the liberation of Korea from Capitalist Imperialist Aggression, the following facts are evident. The American soldier has weak loyalty to his family, his community, his country, his religion and to his fellow soldiers. His concepts of right and wrong are hazy. Opportunity is easy for him. By himself he feels frightened and insecure. He underestimates his own work and his own strength and his ability to survive. He is largely ignorant of social values, social tensions and conflicts. There is little knowledge or understanding even among U. S. university graduates of American political history and philosophy of the federal, state and community organizations, states and civil rights, freedom safeguard checks and balances and how these things supposedly operate with his own assistance. He is exceedingly insular and provincial with little or no idea of the problems and the aims of what he contemptuously describes as foreigners and their country. He has a little realistic concept of inherent American strength rather than earned or proven superiority in absolute military responsibility. This is his most vulnerable weakness. He fails to appreciate the meaning of and the necessity for

military organizations or any form of discipline. Most often he feels that his military service is a kind of hateful, unavoidable servitude to be tolerated as briefly as possible and then escaped from as rapidly as possible. They hate hardship and sacrifice of any description as if these things are unreasonable and unfair to them personally. Based upon the above facts about the Imperialist United States Aggressors the re-education and indoctrination programs of American prisoners will proceed as planned."

It behooves us to ask what kind of education is really needed if this Communist appraisal contains enough accuracy to disturb us.

I realize that these remarks constitute a very superficial approach to the factors involved in world citizenship, but I do believe that such considerations should be of some significance in attempting to develop curricula in our colleges.

### Our New Need

I readily admit that our capacity to produce the needed number and kind of scientists, mathematicians, physicists, and engineers may be overtaxed in the years to come. Certainly we must not lag behind in the essential technology for war and for peace. To falter in either would be quickly fatal. I am wondering, however, if we are yet cognizant that a "new breed" of such people must be provided. The "run of the mill" technologist will no longer be able to provide tomorrow's special brainpower. Regardless of any effort we make to pour a mass of people through a scientific education funnel, thus trying to fill our need, we cannot escape the statistics on human ability.

Here in the United States we have established the distribution of I.Q.'s among the population. We have no reason to believe that this distribution is markedly different from the rest of the world.

1%	55 or below
6%	from 55 to 78
24%	from 78 to 91
38%	from 91 to 109
24%	from 109 to 127
6%	from 127 to 145
1%	145 and above

It seems rather probable that the



"super-scientist of tomorrow" must come from about 7 percent of the population. It is also markedly probable that not all of the 7 percent would choose to become scientists. Approximately half of them will probably elect to become writers, ministers, statesmen, teachers, homemakers or enter other nonscientific callings. Some of them will never enter college.

It is generally agreed that an individual must have an I.Q. of 100 or above to develop successfully in higher education. We have then a sum total of not much over 31 percent of our people available for development by a higher educational process. Not all of these will begin college training and fewer will finish.

The point I am attempting to make is that college training beamed at the higher 3 or 4 percent level is pretty generally lost on the remaining percentage and would even further reduce the number completing college. In other words, I am opposed to an aristocracy of education which, in effect, eliminates a large number of those who *could* benefit by a college education.

#### Our Propagation Beds

Our public schools are doing a remarkably good job in view of the fact that many are underfinanced, overloaded, and inadequately staffed. Their product is superior to that of two decades ago. Public schools are slowly and painfully making curricular changes. They are obligated, however, to provide some sort of equal educational opportunity for all classes and categories of students. They cannot consistently or morally concentrate upon the upper mental strata with present financing and staffing. It will be from 10 to 20 years before any great amount of change will be evident to the colleges.

It would be disastrous for any college to make immediate radical curricular changes based on the quality of raw material which *may* be available 10 or 20 years from now. Secondary schools and higher education *must* develop together.

#### Our Consumers

For the most part the "consumers" of our "products" are the people of our nation. For decades higher education was so unique and such a respected institution that agriculture, business, and industry rather gratefully and blindly accepted the sparse supply of graduates. In due time we accepted this as evidence of our om-

niscience and infallibility. Times have changed. Higher education is no longer viewed uncritically by the overall population whose ranks are filled with its products. In effect some parent in curriculum development says to the "consumer":

"We relinquish a large part of the educational process to you. We will train in certain 'solid' areas which *we* will determine and you finish the job."

If we assume for instance that every graduate should have calculus and analytical geometry, can we safely assume that a chemical company in hiring a chemicals salesman would prefer analytical geometry to a course in credit and collections or wholesale merchandising? In like manner, would a TV station in employing a television farm director feel that a minimum of six hours of college physics was necessary and preferable to six hours in public speaking and public relations?

On the other hand, I can readily see that a chemical company might insist on 25 or more hours of chemistry if they were considering a man for research in toxicology. They would probably insist on a heavy concentration of biology as well.

It would not seem that a standardized funnel approach is what our "buyers" would necessarily prefer.

#### What Philosophy?

Basically our problem in developing curricula arises from our uncertainty as to what our philosophy should be. Perhaps the lessons of history contain some significance for us. For centuries we have had a so-called American system and a so-called European system. The systems differ in two rather important aspects. The American system traditionally was democratic in that it provided a much larger amount of training in human and spiritual values. The European system was designed to develop an aristocracy of mind and class and to de-emphasize the non-technical. Most civilizations which have followed the European philosophy have spent the last ten centuries attempting to dig out of the rubble of their successive failures to get along with each other and with us.

I suppose few of us could deny that Albert Einstein is the world's greatest mathematician and scientist. Perhaps it may come as a surprise to know his philosophy about education.

"The school should always have as its aim that the young man leave it as a harmonious personality, not as a specialist. This in my opinion is true

in a certain sense even for technical schools. . . . The development of general ability for independent thinking and judgment should always be placed foremost, not the acquisition of special knowledge.

"It is essential that the student acquire an understanding of a lively feeling for values. He must acquire a vivid sense of the beautiful and of the morally good. Otherwise he—with his specialized knowledge—more closely resembles a well-trained dog than a harmoniously developed person."

Dr. Eldon Johnson, president of the University of New Hampshire, very pointedly supports the American system and warns of our aping the European or Communist system of education in his 1958 annual report.

"There is an ancient educational assumption, still very much alive, that what society needs is a smaller and smaller number of educated men whose wisdom and benevolence will trickle down to the unwashed multitudes. Restated without such admittedly prejudicial language, this assumption may still be advantageous for some colleges, but it is disastrous for society at large. The state university must proceed from two beliefs which, *for it*, make the trickle-down theory untenable. First, is the belief that the world's work nowadays is done more by mind than by muscle and that trained minds are, therefore, in such common demand that the "elite" principle is inadequate for society as a whole. Second, is the belief that every mind is entitled to its fullest development and that the finest development of someone else's mind is no adequate substitute. The next man cannot be virtuous for us, or see for us, or hear for us; neither can he think for us. A monopoly of truth—that is, what can pass for truth because unexamined—is much more abhorrent than a monopoly of wealth or of power. Those who are genuinely gifted, and especially those who mistakenly view themselves as God's gift to the gifted, should in all humility listen to the words of William Ellery Channing: 'Great minds are to make others great. . . . Of all treasons against humanity, there is no one worse than he who employs great intellectual force to keep down the intellect of his less favored brother.'"

Whatever direction we choose in developing curricula, we must exercise selective judgment. We establish maximums and minimums. We must decide what is necessary in science, mathematics, and the humanities but these things should be determined on the basis of what we have to work with, what is needed, and what is possible.

It would be ironic indeed if the Communists won their world battle by insidiously influencing us to adopt their system of education, causing us to eventually falter in the ideology and practices of democracy. □

## Activities of the Hebron - - -

## Vocational Agriculture Advisory Council

JAMES J. ALBRACHT, Vo-Ag Instructor, Hebron, Neb.



James J. Albracht

THE Hebron Vocational Agriculture Advisory Council was organized in 1955. This is the fourth consecutive year that it has been in operation. The council was started with six farmer members and was enlarged to nine farmer members in 1957. The vocational agriculture instructor, the principal, and the superintendent attend the meetings regularly but are not official members. Board of Education members also attend the meetings upon request.

The council is composed of three representatives from the fathers of the all day students, three members from the young farmer class, and three members from the adult farmer class. This keeps your vocational agriculture program in proper perspective, giving more emphasis to the adult and young farmer programs.

The original council members were elected by the board of education from nominations of the vocational agriculture instructor, the principal and the superintendent. Since then the advisory council nominates and

elects its own members, after selecting representative candidates as to location, and willingness and ability to serve.

The term of office is for three years with six holdover and three new members each year. The council meets on the fourth Monday of each month starting in September and excluding December. The meetings are for two hours from 8 to 10 p.m.

There are five meetings each year with the first meeting devoted to adult and young farmer classes, the second to the courses of study, followed by meetings on farm mechanics, FFA and farming programs.

The Hebron vocational agriculture advisory council selects the topics for the first adult and young farmer class meetings. Topics of the most vital interest at the time are usually selected. A list of prospective members is prepared. The council members help publicize the meetings and, since they had a hand in planning the classes, they help see the classes to successful completion.

The council also approves the course outlines for the vocational agriculture classes. Hebron has a four-year program alternating Ag III and Ag IV. The council makes recommendations for improvement and informs the instructor where he could

place more emphasis. The council suggested that more time be spent on tractor maintenance and on the care and operation of farm machinery. It was also suggested that more time be spent on showing and fitting livestock for the fairs.

The council approves the FFA program of work. The council is informed of the activities of the FFA chapter. The council suggested that an FFA big brother program be included and that local public speaking and team demonstration contests be held at night so that the parents could attend.

The course of study for the farm mechanics program is approved. The council suggested that we give added credit to those who bring in their own projects to work on, and that the students give more farm mechanics demonstrations. It was also suggested that more time be devoted to electric wiring and plumbing.

After reviewing project outlook, areas of emphasis are suggested by the advisory council. Sources of good projects are suggested. It was felt that more emphasis should be placed on the farming program record books, and that the dads can give more help in the figuring of expenses.

In addition, the advisory council is very helpful in securing enrollment for the all day classes and in carrying the word on what is being done by the vocational agriculture department to the people of the community. It is very beneficial to have these trained men to help you in "the inspiring task." □

### Informing others is part of - - -

## Public Relations in Vocational Agriculture

WILLIAM W. STEWART, Vo-Ag Instructor, Postville, Iowa



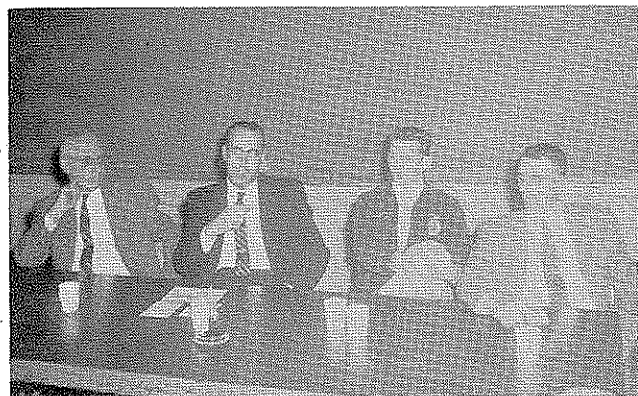
Wm. W. Stewart

SINCE starting on the job as a beginning vocational agriculture instructor a little while ago, I have continually been admonished to inform the public about my program. Since becoming a member of our state and national vocational agriculture teachers' associations it has been emphasized again and again—the importance of acquainting those with whom we work

and the public in general of the scope, the objectives and the problems which we face. This, to me has been a logical part of a whole program. To put "our light under a bushel" is as illogical and unnecessary now as in ancient times. The late Senator Walter George of Georgia emphasized this point when he stated, "Those who oppose your program do not know your program." It was to inform other

professional workers that our Sub-District, a group of 16 vocational agriculture teachers, undertook a truly public relations phase of our annual program.

We have an unusually strong spirit in our group, I believe, of profession-



Panel members: Supt. Bussey, Monona, C. E. Bundy, Teacher Trainer, Iowa State; F. Brandt, Dist. Pres. FFA, Postville; Lyle Lieman, Pres., School Board, Postville.

alism, or esprit de corps and general objectives concerning our mutual responsibilities to our program of training young men and farmers in the business of farming.

Two meetings during the past year deserve description and explanation as well as publicity. In February, 1958, our group invited our respective superintendents of schools and our high school principals to a dinner meeting followed by a general discussion of our program and a panel discussion of our responsibilities to our local school, community, and farmers in general. This meeting was well received and 100% of our members were in attendance, though some administrators found it impossible to meet with us. As our panel, we selected a superintendent friendly and enthusiastic in his support of vocational agriculture, our head teacher trainer at our state college (who incidentally served as moderator of our panel), an FFA member who at the time of the panel was District

FFA Vice President and is now a State Vice President, a local school board member who is a former FFA member, and an Iowa farmer who operates a modern dairy farm. Discussion of our problems and general interchange of opinion was in evidence.

Our group felt that this kind of meeting was a logical function of our organization and undertook to attempt a follow up with another group of fellow workers by inviting neighboring professional workers in agriculture in January, 1959. Our guests this time were county agriculture extension directors, their assistants, soil conservation technicians, work unit conservationists, and an editor of a local weekly newspaper. Results this time were even more rewarding, and it is the general consensus of opinion that this is a worthwhile activity and one which should be preserved and encouraged. Whom we will invite to this meeting next year remains to be seen, but little doubt is in my mind that we

will repeat this opportunity to acquaint and strengthen relations with those with whom we work. The theme of our meeting with the professional agriculture workers was for each person in attendance, including our guests, to speak briefly on the topic, "What I am doing in my job to strengthen agriculture." It was an opportunity for all of us to hear first hand some splendid teaching aids, some terrific programs, and a real challenge.

The mechanics of this part of our program are simple. One vocational agriculture instructor serves as host and arranges for eating accommodations. Each of our teachers invites his own guest and pays for his meal. Transportation is cooperative, and it is my unqualified opinion that this type of get-together has brought our own members closer together as well as doing a lot to strengthen professional relations with others outside our own teaching field. I would highly recommend this activity to any group of professional workers. □

### A teacher answers the question - - -

## Where Do We Go from Here?

L. WARREN HARRELL, Vo-Ag Instructor, Winter Haven, Florida, and Pres., F.V.A.T.A.

Change is inevitable in our society. The teaching of vocational agriculture is no exception. However, change does not necessarily mean progress. As teachers we face the responsibility of converting a changing agriculture into progressive and fruitful educational practices.

We are all familiar with the present trends in agriculture. The average farmer is older; his investment is higher than ever; his farm is larger in order to be an economical unit; and, he has a high degree of mechanization. On the management level, integration is moving in. There are fewer farms and a lesser number of owner opportunities, yet the population is increasing. There is also a demand for more and better food as the standard of living rises. It is not the intention of this paper to discuss these trends, but rather to consider how we are concerned as teachers of vocational agriculture.

Why are we concerned? In the first instance, we must be concerned. We have a part in the future of American agriculture, whether we appreciate that position or not. We are fortunate because the social circumstances

of the past decade have placed us in a good position to face this change in farming. Most of us are 30 to 40 years of age with at least ten years of service. Therefore, we are faced with up to twenty-five years of active service before us. We have enough experience to seek out the facts relative to the present attacks on education. We should realize that the fickleness of the lay public is a luxury that we cannot afford—neither can our students. We can't jump from an extensive physical education program one year to increased emphasis on science and mathematics the next and expect to progress. We must realize this and face the inevitable change with a planned, stable program that can be expected to bear fruit in the next ten years. So it is our concern and duty to be right, and then go ahead.

There are several conflicting viewpoints as to the road to follow. There are some, usually those old in service, who insist on teaching 1918 Smith-Hughes vocational agriculture. It is my opinion that by following this program, at the end of ten years fifty per cent of our departments

would be closed because of lack of proper students.

Then there are some, usually those young in service, who feel that we should lower all bars and go into Agri-Business. Their interpretation of Agri-Business is to teach boys and girls how to be butchers, tractor service men, fertilizer salesmen, and other jobs in related industry. While this plan has some merit, I feel that by the end of our ten year period the vocational agriculture program would be absorbed by the distributive education program (which is where this type of program belongs.)

Then there is the middle group, somewhere in between the two extremes. I fear that some well-meaning members of our profession have chosen this position because it is academically safe. In other words, they are fence-straddling in order to secure do-nothing positions. It is my contention that steps should be taken to insure the continued success of vocational agriculture in meeting the future agricultural needs of our changing world.

With these thoughts in mind, may I present a suggested route for vocational agriculture for these times?

1. *We must continue to emphasize the farm boy.* In most communities now served by vocational agriculture there will continue to be farm boys. Generally, they will be faced with a challenge



of modern farming and its complex problems. Therefore, we must always be primarily concerned with meeting the increased needs of educating these prospective farm owners for a modern agriculture. In my opinion, as farms become larger and more complicated as to management, financing, equipment, etc.—so also is the need for our services greater. This is true even though the number of students is smaller.

2. *We must increase farm placement opportunities in the area of agricultural production.* The related positions outside of farm production can be best handled by other vocational services and these areas are not our concern. We cannot expect vocational agriculture teachers to become proficient in the teaching of all the related fields of agriculture.

We must, however, realize the growing demand for farm managers, operators, farm technicians, and skilled farm laborers. The changes in agriculture have opened many new positions for young men trained in agricultural production. One of the best methods of teaching the production of agricultural products to the boy with limited facilities is in farm placement. I feel we need much work done in the area of skill in farm placement of vocational agriculture students for training.

3. *We should encourage the pre-college student and the boy who is interested in part-time farming.* I will not argue the point of the pre-college student. It has been proven that the vocational agriculture course is an excellent preparation for the boy who plans to major in agriculture in college. With the increased need

for trained agriculturists, more of our students should be encouraged to attend college. The boy who is interested in part-time farming can also be reached through a good placement program and the wise selection of productive projects.

4. *School farms should be used to expand individual project programs.* In recent years some departments have developed school farms that cannot be justified in a teaching situation. Teachers are becoming farm managers and students are becoming farm laborers. Sensible land laboratory programs should be developed by the departments and the remainder of the farms used for individual projects for boys with limited facilities.
5. *Adult and Young Farmer work should be accelerated.* As the problems of efficient management become more complex, farmers are turning to the vocational agriculture department for advice. This is an area of immediate results. However, it will be necessary for arrangements to be made to bring in specialists or resource persons if the department is to meet the need. Present day agriculture is becoming too complicated for the average agriculture teacher to become a specialist in several fields.
6. *The leadership program must be continued with contests in the proper perspective.* The farm home has long been the cradle of democracy. The development of citizenship and proper leadership to expedite it is still of paramount importance. However, leadership contests must be looked at in the proper light. They cannot be allowed to dominate the program. Sometimes it seems that the general opinion

is that each Future Farmer in the nation can justify entering the same contest. Is this the case?

7. *Enrollments must be kept at a reasonable figure.* Whether a boy is on farm placement or has a large supervised farming program, visitation is the life of a successful agricultural education program. It is a basic fact that a teacher can only do so much in a ten-hour day. The most important factor that can determine the efficiency of his program is the number of individuals involved. No teacher can properly visit seventy-five boys.
8. *Students must be selected that need and want the program.* Any department that becomes a "dumping ground" can expect trouble. We are here to deal with vocational agriculture students—nothing else.
9. *Students must be guided into the proper curriculum.* No one is more qualified for the guidance of agriculture students than the vocational agriculture teacher. We must make this our concern. There is no question as to the importance of science and math in today's agriculture. *Ask some successful farmer.* We can see this with our college prep students, but what about our non-college students? If they do not learn the basic principles of science and math in high school, where will they learn them?

In conclusion, all of the career teachers in vocational agriculture should be much concerned with the future of the profession. We must have a plan and let it be heard. The State Teacher's Association and the NVATA welcome contributions from teachers as to the final development of the route to take. Where do we go from here? □

## Neglected?

# Role of the Mother in Vocational Agriculture

SELZ C. MAYO, Professor of Rural Sociology, North Carolina State College

Literature in vocational agriculture is replete with ideas on the relationship of the boy and his father. Many such ideas are carried in books, bulletins, monographs, and journal articles. Such ideas of relationship are

embedded in vo-ag through such functions as father-son banquets, father-son partnerships, all-male advisory councils, and the like. There are, too, some suggestions in the literature for establishing working re-

lationships between the vo-ag teacher and other members of the boy's family. This is reflected in changing patterns such as parents and son banquets and family night events.

Strikingly absent from the literature is information concerning the role of the mother in her son's vo-ag program. What part does she play in her son's supervised farming program? What influence does she have with respect to son's participation in FFA activities? What is her position in obtaining family financial assistance for some phase of her son's

farming program or going to camp? What is her place in the triangle of relationships—son, father, mother—in the total decision making process which bears on the boy in his vo-ag training? These are but a few of the very broad questions for which answers are badly needed.

During the spring of 1958, C. D. Bryant, for many years a teacher of vo-ag in North Carolina and an instructor in teacher training at N. C. State College during 1957-58, undertook a study designed to explore these types of questions. The study was very limited in scope and intensity—the study was confined to a single class in one school. (The study was undertaken as one part of a regular college course for which Mr. Bryant was registered. The work was supervised in a general way by the author of this article.)

This study should be understood as exploratory and suggestive rather than substantive and definitive. In the author's opinion, however, the results are of such importance as to warrant the attention and interest of vo-ag teachers everywhere.

The method of study was quite simple. All the boys in a sophomore class were asked to complete a form on which the following question was asked: "Whom do you *contact first* at home concerning the following vo-ag activities?" Nine specific activities were then listed on the form. The instrument was completed by twenty-one farm boys.

The results obtained were very startling. These twenty-one sophomores reported that *they contacted their mothers first as follows:*

1. Go on FFA trip—21 of 21 boys contacted mother first
2. \$15.00 for camp—18 of 21 boys

3. Improvement projects—17 of 21 boys contacted mother first
4. Shop projects—17 of 21 boys contacted mother first
5. \$3.00 for vo-ag program—16 of 21 boys contacted mother first
6. Money for SFP—15 of 21 boys contacted mother first
7. Production projects—12 of 21 boys contacted mother first
8. \$1.00 for FFA dues—7 of 21 boys contacted mother first
9. Supplementary jobs—3 of 21 boys contacted mother first

One other point of interest should be noted from this study. The twenty-one boys were classified as to whether they lived on a full-time or part-time farm. Full-time farms were defined as those farms from which the family obtained all or practically all of their income from the farm that they operated. Of course, the remaining farms were classified as part-time. On this basis, twelve of the twenty-one boys lived on full-time farms and the remaining nine lived on part-time farms.

The following shows the number of boys from each group who contacted their mother first about various activities in their vo-ag training program.

Vo-ag activities	Full-time	Part-time
	boys	boys
1. Go on FFA trip	12	9
2. \$15.00 for camp	12	6
3. Improvement projects	8	9
4. Shop projects	8	9
5. \$3.00 for vo-ag program	8	8
6. Money for SFP	6	9
7. Production project	4	8
8. \$1.00 for FFA dues	2	5
9. Supplementary jobs	1	2

General conclusions cannot be drawn from this extremely limited study. However, among students in this particular sophomore class, *the mother played a very important role*

*in the decision making process as related to the boy's participation in vo-ag activities.*

From observations and discussion with other vo-ag teachers, it appears that the father tends to play the role of a legitimatizer in that he sanctions the agreements which have been made between the vo-ag student and his mother. This point manifests itself in expressions as these:

"I'll run down in the field and let Dad know that I'm going," the boy say to his mother.

"Now, Son, this is all right with me," the mother says to her son, "but remember we'll have to talk to Dad about it."

If this theory is sound, and these limited data lend positive support to the contention, then the vo-ag teacher will need to reorganize parts of his program. For example, in an orientation program for new students, it would be very essential to have mothers attend group meetings. And, much of the material used via mass media would be slanted toward or prepared especially for mothers. Also, the implications are quite obvious as far as on-farm visits with the son are concerned. These statements should not be construed as advocating the relegating of the father to a minor position—but rather the point is to recognize the very significant role played by the mother in shaping the vo-ag activities of her son.

Trend data are not available from which to draw the conclusion that the role of the mother is becoming either more or less important in relation to her son's activities in vocational agriculture. There are, however, some other well-established gen-



1. "Mother, all the boys are going on a trip, may I go too?" (Photo by J. K. Coggin, Teacher Education, N. Carolina State College)



2. "I'll run and let Dad know that I'm going," the boy said to his mother. (Photo by J. K. Coggin, Teacher Education, N. Carolina State College)

eral trends from which it may be argued on the basis of logic, that the mother plays a more important role now than in the past. And, she will play an even more influential role in the future. □

## Opportunity in agriculture through . . .

# Instruction in Nursery Work

O. E. THOMPSON Teacher Education, U. of Calif.



Orville E. Thompson

ARE we exploiting all the possibilities for placing young men in agriculture? We all recognize the many difficulties in acquiring control of a farm today, but have we fully explored other opportunities? Take the nursery business, for example.

Let's start by looking at the future of this industry. The nursery business is booming. In this past year, nation-wide sales of shrubs, trees, and other ornamental plants for landscaping were estimated to have exceeded three-hundred-million dollars, according to Curtis H. Porterfield, Secretary of the American Association of Nurserymen.<sup>1</sup> That is double the figure of four years ago and dwarfs the amount spent a decade ago. The three-hundred-million figure does not include the millions spent on cut flowers, potted plants, bedding plants, flower seed, and vegetable seed.

This great upsurge of interest in landscaping and gardening is attributed to several forces. First, and perhaps most important, is the boom in home building since World War II. Increased emphasis on outdoor living in every state also increases the amount of nursery stock purchased by home owners. More leisure time and a general high level of prosperity likewise increase the demand for plant materials for home beautification. The building of superhighways and freeways creates another major outlet for trees and shrubs. Here, landscaping dims the glare of approaching headlights on divided lanes as well as beautifies the highways. Industry's migration to the suburbs increases appreciation for industrial landscaping, opening a third major outlet for nursery stock. These national trends are intensified in California. Here the California Association of Nurserymen estimates that sales of

landscaping materials have doubled in the past five years and will double again in the next five to seven years. It is predicted that 213,000 new homes will be built in California this year. Trade sources tell us that each homeowner spends an average of \$140 per year in promoting family garden enjoyment. A substantial part of this expenditure is for green goods (seeds, plants, shrubs, and trees); the remainder is for pesticides, tools, equipment, and other items usually available in the modern nursery. Where else in agriculture can we look for such zooming opportunities? And we have not mentioned the floral business, which in California is a one-hundred-million-dollar industry.

Thus far, few secondary schools and four-year agricultural colleges have assumed the responsibility of training workers specifically for this great industry—because the needs of the industry were little realized and because agricultural educators have not been swift to classify as "agricultural" the production of ornamental plants, bedding plants, cutting flowers, and flower seeds. We must now consider these industries as an important phase of agriculture, for today it is not unusual to see roses, seedling fruit trees, shade trees, shrubs, and flowers for seed grown in fields that are up to several hundred acres in size. These have become important farm crops. Their introduction has created previously unknown problems in both production and marketing. These advances have created a continuous demand for trained workers. A study was undertaken in California in 1958 to find basic information that could provide guides for the development of programs to train individuals for the nursery industry.

Information was gathered by personal interview from 286 (about 10 per cent) of the commercial nursery operators in the state. Educators interested in developing workers for this industry in every state should consider the findings of the study:

1. The nurseries in California are rapidly expanding businesses. Over two fifths of the companies

studied plan to increase their physical plants in the near future. Another one third will be adding new employees during this period.

2. Many new nurseries are starting each year. Only 48 per cent were over 14 years old; more than 40 per cent were less than ten years old; more than 12 per cent had started in the past four years.
3. The majority of the nurseries are small, privately owned, independent businesses, often managed by the owner. In well over two thirds of the nurseries the manager was the owner. About two in every five nurseries had no more than three employees. Almost three fourths had fewer than ten employees, while three nurseries in the sample had over 200 employees. One of these is reported to be the largest nursery in California, and perhaps in the United States.
4. Nurserymen are interested in education. Of the nursery operators in the study, 27 per cent held degrees from four-year colleges and another 12 per cent had some college work. Only seven per cent had not graduated from high schools. A four-year college degree is almost universally required of new employees for supervisory and managerial positions. Junior college preparation is desired for salesmen, while high school is adequate for many of the skilled employees. The operators were not satisfied with the educational preparation of their present employees.
5. Most nursery workers need some business education to be successful. Specific requirements varied as to level of employment. Those commonly needed were in the areas of salesmanship, accounting, merchandising, finance, and principles of business operation.
6. Most nursery workers need educational preparation in the technical fields of horticulture. Such areas as plant identification, plant propagation, proper plant use, care and management of plants, greenhouse management, landscape design, and certain mechanical skills are needed in varying degrees, depending on

<sup>1</sup>Sylvia Porter, "Nursery Business Enjoying Big Boom," San Francisco Chronicle, May 28, 1958.

the level at which the employee is working.

7. Salaries of nursery workers are often lower than those in comparable industries. However, most nurseries provide an attractive range in salaries. For example, skilled workers start around \$250 per month, with top salaries ranging to \$525 per month. Sales persons and supervisors start somewhat higher, and likewise have a higher ultimate salary. Almost one third of the managers of nurseries earn over \$600 per month. These salaries do not include commissions or bonuses given by some companies.
8. Retailing of plant materials is by far the most common function of nurseries. This was the primary function of over 90 per cent of those involved in this study. About 70 per cent relied exclusively on wholesale nurseries for the plants they sell.

What implications do these data have for vocational education in agriculture?

1. In the nursery field there are still many opportunities for a young man to enter business for himself. Capital outlay is relatively small for a straight retail outlet. Small neighborhood nurseries are doing a good business in many areas. However, trends are toward large garden centers and plant sales by drugstores and supermarkets. This competition may replace poorly managed nurseries. However, the supermarkets cannot now com-
- pete with the small nursery in providing the personal and informed services that many customers desire.
2. There are opportunities for students to grow plant materials for nurseries. An acre or two of seedling plants can often provide a substantial income and give the student more experience than may be derived from some of the traditional activities now being done in many schools. One Future Farmer Chapter in Southern California owns and operates its own wholesale nursery outlet. Here students learn all phases of plant production, management, and sales on their own commercial operation. This year they expect to net several thousand dollars from selling plants to local nurserymen! Another high school featuring ornamental horticulture in its agricultural program has more than doubled its enrollment in this course during the past three years. In addition, 70 adults enrolled in the first ornamental horticulture night class given there in the fall of 1958.
3. The high school program in agriculture can make a substantial contribution toward helping a student prepare himself for a job in a nursery or for further education in horticulture. In the high school program he should learn plant identification, plant propagation, the use of machines and other skills, and the understanding needed by employees in

a nursery. Ideally, his courses in agriculture would be supplemented by introductory courses in business education such as accounting, salesmanship, and merchandising. The supervised experience phase of his training could be accomplished by on-the-job experience in a nursery or through the production of nursery plants, either on land of his own or on school-provided facilities.

4. There are numerous ways in which a school could organize an ornamental horticulture program. Most feasible appears to be a two-year program that provides for both classroom instruction and laboratory practice. Ideally, the teaching facilities should include a classroom, glass house, lath house, potting shed, and planting area. Some schools have used shop classes to construct their facilities, thereby keeping the investment relatively small. Schools now having good ornamental horticulture programs often find these departments the center of attraction for the school. Adult classes in ornamental horticulture have likewise become popular in these schools.

It is quite evident there is a real future in nursery work for ambitious young men. Agricultural education has a responsibility to train men for this field, which is indeed agriculture and closely related to farming. The general outlook for expansion appears to be unlimited. Let's do something about it. □

## Agricultural education clubs initiate - - -

# Student Exchange Program

FRANK MARCUS, Student Chairman of the Student Exchange Program  
and  
LAVERN A. FREEH, Teacher Education, Ohio State University



Frank Marcus



LaVern A. Freeh

might be interested in the "Student Exchange" program initiated this year by the Agricultural Education Club of Michigan State University.

The exchange program, thought to be the first of its kind in America, was first proposed at the beginning of the school year and was enthusiastically received by the staff of the Department of Agricultural Education and by university officials. Dr. Harold Byram, Head of the Agricultural Education Service at M.S.U., presented the proposal at the Agri-

cultural Education Regional Research Conference where it again met with favorable interest.

Here are the objectives of the exchange program:

### Objectives

1. To promote a better understanding of agricultural education among students enrolled in agricultural education in various states.
2. To provide information on job opportunities in our own and other states.
3. To provide a means for increased interest and involvement by students in the Agricultural Education Club.
4. To gain insight into farming and related fields in our own and other states.

Looking for a new and different activity for your club? If so, you



5. To obtain information on training requirements and qualifications of vocational agriculture instructors in other states.
6. To obtain information on the future of vocational agriculture in our state and in other states.

The program functions as follows:

Each term two members of the M.S.U. Agricultural Education Club spends one week as guests of clubs or collegiate chapters in other states. These states in turn send a like number of students to Michigan State where they are guests of the M.S.U. organization. Each exchange student is assigned to a host while they are on campus. The clubs on the various campuses provide food and lodging for the exchange students and arrange for all of the activities which

are a part of the program.

To institute the program, Agricultural Education Clubs or collegiate FFA chapters in other states were contacted to find out whether they were interested in participating.

This spring the first exchange took place with Ohio State University. Three students in agricultural education came to Michigan State University campus where they were the guests of the Agricultural Education Club. In the meantime, three students in Agricultural Education at Michigan State University journeyed to Ohio State and were the guests of the Townshed Agricultural Education Society.

While at M.S.U., the exchange students visited campus classes; a student teaching center; and a first

year teacher. They also met and conferred with the Dean of the College of Education, the Dean of the College of Agriculture, the Director of the Student Teaching Program and the Agricultural Education staff. In addition, they attended an Agricultural Education Club meeting, met with members of the Agricultural Education staff of the Department of Public Instruction and toured points of interest in and around Lansing. They also appeared as guests of Vern Freeh, one of the club's advisors, on the television show which he hosts each week.

In subsequent years, the club hopes to exchange with other states in the area. There is even a possibility that the program can be expanded to include a foreign country. □

### Modern farming programs through - - -

## Farm Family Partnerships

ELDOR E. SPLITTGERBER, Vo-Ag Instructor, Albion, Nebraska



Eldor E. Splittgerber

IN trying to develop supervised farming programs for students in vocational agriculture, the hindrances and stumbling blocks found in the way often makes this phase of teaching very frustrating. The very nature of the directive, "all students in vocational agriculture must have a supervised farming program," makes teachers search, plan and devise for the student some form of supervised farming to meet the requirement or to just meet the requirement.

To me, the lone sow and litter, the calf or two to fatten or the one or two-acre patch of corn and single dairy calf are as obsolete in today's picture of modern farming as the Model T and the walking plow. Records kept on projects of such small size show little in the way of efficiency in production. Projects must be of sufficient size to be economically sound, projects must be large enough to make the records valuable. For out of the records kept come the valuable lessons so closely associated with efficiency in production.

As all of the readers know, for young men to become established in farming requires a tremendous

amount of capital. Students must have the help of parents, relatives or other interested individuals if they are to become farmers. To speed the help that the boy may receive from his parents or others, the Albion Vo-Ag Department works on the plan that the boy must be a partner in the home farm. This partnership between the boy and his parents may be developed in almost any enterprise. Records may be kept on the entire swine enterprise on the farm out of which the boy receives a percentage of the profit as agreed on by the father and the son. The same arrangement may be made on the beef fattening enterprise, the dairy enterprise or in the crops area. In partnerships, the agreement is the important thing; the agreement must spell out the division of labor, management and the profit or loss. Partnerships also work among brothers in school. To illustrate, in the Albion Department there were enrolled four brothers at one time. It would have been impossible to set up isolated projects for each. At the time the oldest boy enrolled, their father turned all the swine facilities over to the four boys. The boys farrowed an average of thirty-two sows each year, kept accurate feed and labor records, rented an additional 160 acres of land and worked as a team. Today, the four boys own 160 acres of irrigated land, one boy is home farming and three are at the College of Agriculture from which

one will be graduated this spring. All the boys earned the needed finance through partnership farming.

The success of partnerships rests first of all on cooperative parents, interested parents and understanding parents. This takes a lot of ground work on the part of the instructor in explanation of the partnership set-up. This can be accomplished only if the father, mother, son and teacher meet to work out the agreements and solve the anticipated problems that might arise. Above all there must be give and take regarding management problems.

The benefits of Vo-Ag partnerships are the larger units with which the student works making, of course, for more efficient operation. It also results in a complete understanding by the parents as to the objective of the Vo-Ag supervised farming program. Unknowingly perhaps, the teaching, through the boy, rubs off on the parents.

Some disadvantages of partnerships are the fact that a boy cannot single out an animal as his own. This hurts if the boy would like to show at various fairs. Partnerships require a lot of guidance and conferences which, in a department with a large enrollment, means a good deal of evening visitation. □

### FOR JANUARY

*Farm Mechanics and  
A Changing Agriculture*

Is your subscription  
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will get your copy?



**THE CHALLENGE OF SCIENCE EDUCATION.** Edited by Joseph S. Roucek. Published by Philosophical Library, Inc., 15 East 40th Street, New York. 491 pp. Price \$10.00.

The purpose of this book is essentially to synthesize the cross-currents of thinking and the evaluation of educational practices in the field of science by 32 specialists. Attention is given to the fact that with the development of the Space Age the importance and role of scientific education has grown in our society.

While broad coverage and penetrating analysis of many phases of science education is given, agriculture as a science field is not presented. A brief chapter, written by Charles W. Mattison, on conservation at the collegiate level, however, contains certain considerations pertaining to agriculture, as well as do the chapters on biology and zoology.

Five chapters of the book deal with the framework, background and formal education aspects of science. Roucek discusses in the first chapter "The Use for and Against Science and Scientism." William W. Cooley, of Harvard University, in the chapter entitled "National Welfare and Scientific Education" impressively shows the enormous growth of science and technology in the United States and discusses such topics as identifying potential scientists, pointing out that selecting certain students in high schools with the expectation that they will be future scientists is highly unreasonable. Some stress is placed on the need for research to learn more about career development and how able students can be aided to make realistic educational and vocational decisions.

Two chapters deal with elementary education and mathematics at the pre-primary and elementary level. In the section dealing with secondary education, four chapters are devoted to general problems of science education in high schools, mathematics, physics, and to the role of teachers colleges in preparing teachers. Ten selected areas are covered under a section concerned with college and university education: engineering, industrial education, mathematics, biology, medicine, physics, chemistry, zoology, conservation, and social science education. Another section of the book deals with auxiliary aspects of science education, i.e., activities of the Federal and State governments, science and adult education, and scientists and engineers for the Armed Forces.

The section of the book concerned with comparative aspects of science edu-

cation contains much interesting and up-to-date information. The brief remarks of James R. Killian, Jr., Special Assistant to the President for Science and Technology, regarding problems of science teaching in the United States are presented, emphasizing to some degree the need for educational priorities—"of excellence rather than coverage." A chapter devoted to science education in Great Britain presents many interesting facts, revealing the stages of education, the general science movement, and the shortage of teachers for science and mathematics.

Of special interest to the general reader would be the chapter "Science Education in the U.S.S.R.," written by L. A. D. Dellin of the University of Vermont. Data are presented which reveal the number of individuals which are said to be attending educational institutions. Discussion on the 10-year general-education school as the basic unit within the Soviet educational framework reveals this to be comparable to our 12-year elementary-high school program. Comments relative to "specialized" vocational schools—*tekhnikums*—would be of interest to vocational instructors. Approximately 30 million students attend some 200,000 general-education schools of Russia. A complete ten-year school curriculum being followed universally in the Soviet general-education school is of particular interest and contains detailed information on subjects, weekly hours per grade, etc. Evidence is presented that the new emphasis in Russian education has been placed on the practical and technological application of science developing from the introduction of manual and industrial training into the curriculum. Data on teacher supply, enrollments in higher educational institutions, and advanced degree training are interestingly presented. The last chapter "Classical Education, Science and the West" was written by Werner Heisenberg, the Nobel Prize Winner for Physics in 1932.

This book should be of interest to the general adult reader, particularly at this time, due to present-day discussions and adjustments taking place in American education. It is not written for instructional use in agriculture. As a source of information about which teachers and adults should be aware, it contains a wealth of reading materials, written generally in understandable vocabulary.

The editor, Joseph S. Roucek, is chairman, Departments of Political Science and Sociology, University of Bridgeport (Connecticut). He was born in Czechoslovakia in 1902, came to the United States in 1921, and was granted citizenship in 1927.

George W. Sledge  
Teacher Education  
University of Wisconsin

**POISON ON THE LAND** by J. Wentworth Day. Published by Philosophical Library Inc., 15 East 40th street, New

York 16, N. Y. 246 p., illustrated. 1958. Price \$15.00.

This book *Poison on the Land* is authored by the noted Englishmen who has written numerous books on wild life, nature, and rural England. The general theme throughout the first half of the book is focused upon the menace to wild life caused by the indiscriminate use of toxic farm chemicals, the pollution of our streams and water resources, and the abusive use of our lands and forests. It is pointed out that most of these threats to wild life can be avoided or alleviated.

The second part of this book gives detailed and practical advice on how to prevent damage to wild life and how to develop healthy wild life resources. This book should be of value to anyone who wishes to preserve and enjoy our natural wild life supply. Nature lovers and good sportsmen should find this book interesting reading.

Earl H. Knebel,  
Teacher Trainer,  
Texas

**CROP PRODUCTION**, Second Edition, by Richard J. Delorit and Henry L. Ahlgren. 666 pp. Prentice-Hall, Inc., Englewood Cliffs, New Jersey. 1959. Price \$5.50.

A chapter is devoted to a discussion of each of eighteen crops. They are: corn, wheat, oats, barley, rye, the sorghums, the millets, flax, buckwheat, potatoes, the true clovers, alfalfa, sweet-clover, soybeans, cowpeas, field peas, lespedeza, and the perennial forage grasses. Each of the following is also considered in a separate chapter: the nature and importance of plants, growth and reproduction, pastures, haymaking, grass silage, weeds, crop rotation and green manuring, and improvement of plants.

Approximately 300 photographs and illustrations add to the attractiveness of the book and to the understandability of the information it contains. Much of the information presented is of a general nature. Study questions are listed at the end of each chapter.

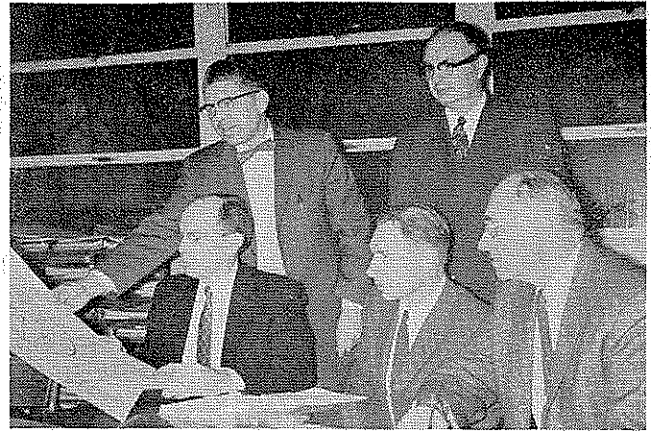
Most of the information presented can be understood by high school students. However, such students and most farmers will not understand some of the terms used, such as the scientific names of the various plants. The book will probably be more useful as a reference for teachers than for students in connection with vocational agriculture classes.

Richard J. Delorit is Associate Professor and Director, Division of Agriculture, Wisconsin State College. Henry L. Ahlgren is Professor of Agronomy and Associate Director of Agricultural Extension, University of Wisconsin.

B. C. Bass,  
Teacher Trainer,  
Virginia



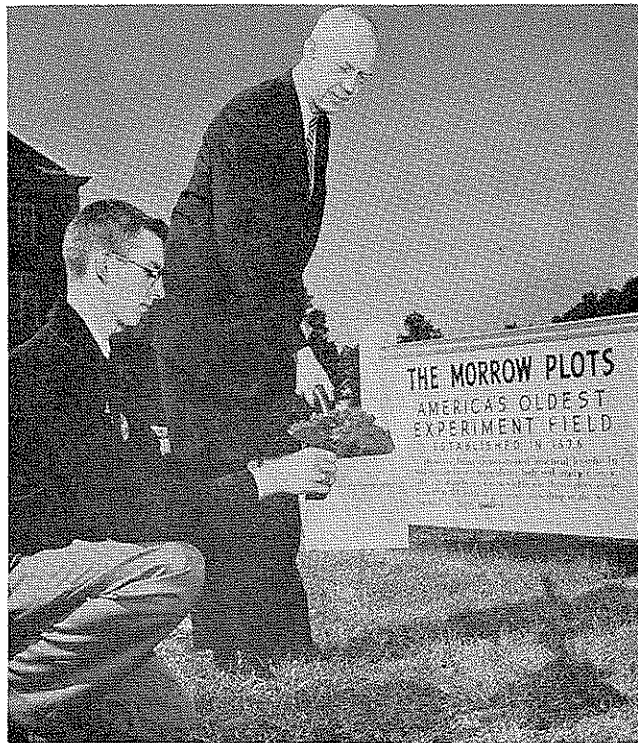
Dr. William F. Hall (left), Professor Emeritus of The Pennsylvania State University, greets Dr. C. L. Mondart, Director of Dean Lee Agricultural Center of the Louisiana State University and Agricultural and Mechanical College. Dr. Mondart was the visiting lecturer at The Pennsylvania State University Summer School for the Agricultural Education Department.



Methods of adapting vocational agriculture to the needs of part-time farmers is the subject of an action research project sponsored by the Department of Agricultural Education at The Ohio State University. This picture shows some of the participants of the project at a recent meeting in one of the high schools which is participating in the study. Left to right are Dr. H. P. Sweaney, Michigan State University; Dr. Ralph J. Woodin, who is adviser to the study; Texton R. Miller, who is the project director and a fellow at Ohio State University, R. H. Christy, Supt., Delphos; and W. G. Weiler, State Supervisor of Vocational Agriculture, Columbus, Ohio.

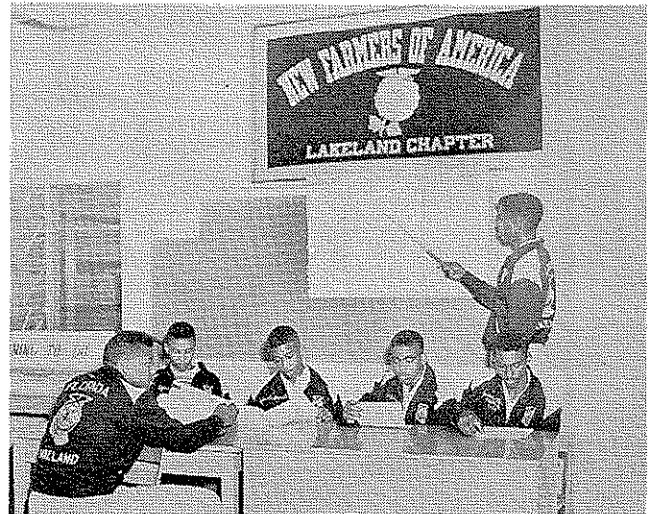


## Stories in Pictures



"THE MORROW PLOTS"

A POUND OF ILLINOIS' MOST FAMOUS SOIL, taken from the world-famed University of Illinois Morrow Plots, will be the Illinois Future Farmers of America contribution to the dedication of National FFA headquarters near Washington, D. C., on July 21. Gary L. Fisher, state FFA secretary-treasurer, Tolono, holds the bag as Dean Louis B. Howard of the U. of I. College of Agriculture deposits this famous soil contribution.



Members of the Lakeland Chapter are planning the 1959-60 NFA Program of Work. Seated left to right: Larry Laranzo (with back to camera), Lynwood Taylor, Johnnie Stancil, W. J. Simmons, James Griffin, and standing Samuel Jones.



Region III of NVATA held an officers meeting at Spirit Lake, Iowa, June 29 and 30. Twenty-one officers and supervisors attended. (Left to right) Verdine Rice, Williston, North Dakota, Alternate Vice President; Jim Hamilton, Audubon, Iowa, Region III Vice President; and Jim Wall, Waverly, Nebraska, National Executive Secretary.