Stories in Pictures

GILBERT S. QUILER
Ohio State University

Young Farmers and their wives from each of the areas of Ohio are recognized for their outstanding community service. These couples were honored at the luncheon during the reunion with the winning couples being treated to a trip to Washington, D.C.

Edward Schone, Professor of poultry husbandry, Cornell University, discusses poultry in poultry courses with a committee of teachers of vocational agriculture during the selection of dressed birds for the poultry judging contest. (Left to right) V. O. Luederstor, Donald Webster, and John Keller.

Agricultural . . .
Education

Volume 39
November, 1966
Number 5

Featuring
OUR CHANGING ROLE

Horticulture has played an important role in our changing role of Vocational Agriculture. Here a Michigan Vocational Horticulture student is developing his skills in salesmanship while recommending varieties of garden plants to a customer.
Evaluating the Merit of Life-Long Education Programs: A Critical Analysis

C. B. Anderson

The effectiveness of life-long education programs has been a subject of much debate in recent years. These programs, designed to continue learning throughout an individual's lifespan, have gained popularity due to advancements in technology and an increasing demand for lifelong skills. However, evaluating the merit of such programs requires a critical analysis of their objectives, methods, and outcomes.

This paper aims to critically assess the merit of life-long education programs. It will explore the primary goals of these programs, including the enhancement of cognitive skills, personal development, and career advancement. Furthermore, the paper will discuss the various methods employed in implementing these programs and evaluate their success in achieving the intended outcomes.

The paper will be structured as follows: an introduction will set the stage for the analysis, followed by a detailed examination of the goals and methods of life-long education programs. The outcomes of these programs will then be evaluated, both in terms of individual success and societal impact. Finally, conclusions will be drawn regarding the effectiveness of life-long education programs and suggestions for future developments.

By critically evaluating the merit of life-long education programs, we can better understand their potential to contribute to personal and societal growth. This analysis will provide insights into the effectiveness of current strategies and guide the development of more impactful programs in the future.

C. B. Anderson

References


(Continued, page 100)
Thems for the Agricultural Education Magazine
February-April, 1967

February-
RESPONDING TO CHANGING NEEDS IN AGRICULTURE AND EDUCATION
How well are we responding to changes in agricultural and educational situations? Basis for change. Are we aware of basic and fundamental changes since our forefathers? Reports from the Centers for Research and Development. A close look at research on innovation and acceptance of new concepts by teachers, supervisors and teacher educators.

March-
AGRICULTURAL MACHINERY IN 1967
Is there still a place for "Farm Shop," with hand tools, woodwork, metal work, cedar chests, etc.? How does the major purpose of the mechanics of 1967 differ from the 1937 class? Research needs. Example of specialized programs. Should mechanics be a part of each year of vocational agriculture? If so, should emphasis differ each year?

April-
RESEARCH EMPHASIS
Progress report on emphasis on research as part of 4-H and other funds for research. Major areas of research done and in progress, as well as trends in research being done in our country. The pollster prints and problems. Most promising organizational patterns for research.

Gene Clever, Yo Ag Teacher, Beyond, Nebraska

How Can We Meet Our Changing Role?

If it appears that vocational agriculture students have been or will be changing, it may be better to meet the needs of agriculture students. Many of us will be attempting to meet these changing needs with little additional training. To meet these needs under these conditions it is even more important than before that we cooperate with the vocational and other vocational services in every possible way.

We have been very lucky in having a great deal of our original students. We have been able to adapt ourselves to the situation even in many respects. With this in mind, we should capitalize on these similarities and start cooperating to a greater extent with the other vocational services.

In thinking of the rural school, where so many vocational agriculture students are the only vocational program available, it is the responsibility of the agriculture departments to cooperate with the other services outside the immediate school and possibly, outside the school.

When we first start to think of an off-farm agriculture, the next question is: "Who will be responsible for teaching the related subjects?" Our answer is that the vocational agriculture instructor. We see this as the first step in developing an agriculture program where the vocational agriculture education is the main focus of the program and not the result of the vocational agriculture instructor being forced to teach all the agriculture.

The program could be administered in a way that is similar to our present vocational agriculture program. The only change would be substituting the employer in the parent's position in the diagram below.

Diagram four

Although this may appear to be oversimplified, it is primarily to cooperate with the other vocational programs, a task that is to develop and to meet the needs of the off-farm agriculture student and the responsibilities that have been placed on vocational agriculture.
**Our Changing Role**

**JAMES FITTS, Vo Ag Teacher, Victoria, Texas**

The Program

This program has been extremely successful this past year, its first in Texas, and is being expanded during the 1966-67 school year. From 19 schools it will increase to approximately 50-65 according to a recent statement by Mr. George Hust, Director of Agriculture Education of the State of Texas.

While participating in this program, students receive individual and group classroom instruction pertaining to their group memberships and occupational training during a five day period a day throughout the school year.

As a part of their training they are employed at an agriculture business for a minimum of fifteen hours per school week during the day and paid for their efforts.

### Schedule of Work Experiences

<table>
<thead>
<tr>
<th>Schedule of Work Experiences</th>
<th>Record of Work</th>
<th>Course of Study</th>
<th>Record of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identity plants</td>
<td>Select suitable trees, vines, shrubs, ground covers</td>
<td>Develop the landscape plan</td>
<td>History of the nursery business</td>
</tr>
<tr>
<td>Stories</td>
<td>Frame the house</td>
<td>Frame the house</td>
<td>How to identify trees, shrubs, vines, ground covers</td>
</tr>
<tr>
<td>Border and screen planting</td>
<td>Preparing soil</td>
<td>Placing suitable plants</td>
<td>Identify diseased plants in a plan, planting</td>
</tr>
<tr>
<td>Seeds and small flowering plants</td>
<td>Caring for the lawn</td>
<td>Choosing plants for special areas</td>
<td>Types of tools for this area</td>
</tr>
<tr>
<td>Curing the lawn</td>
<td>Fighting plants upon arrival</td>
<td>Seeds</td>
<td>Types of tools for this area</td>
</tr>
<tr>
<td>Setting out plants on a landscape job</td>
<td>Preparing soil</td>
<td>Propagation of plants</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Care for plants</td>
<td>Spraying for diseases and insects</td>
<td>Spraying for diseases and insects</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Fungi and mites</td>
<td>Care for nursery office and grounds</td>
<td>Care for nursery office and grounds</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Virus</td>
<td>Placing plants in containers</td>
<td>Placing plants in containers</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Spraying for diseases and insects</td>
<td>Select trees and shrubs for landscape plantings</td>
<td>Select trees and shrubs for landscape plantings</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Care for plants</td>
<td>Cultivating and caring for pet plants</td>
<td>Cater for trees and shrubs for landscape plantings</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Selecting to small customers</td>
<td>Propagation soil</td>
<td>Soil for seedbeds</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Seeds</td>
<td>Planting</td>
<td>Seedbeds</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Care of seedlings</td>
<td>Watering</td>
<td>Soil for seedbeds</td>
<td>Types of plants for this area</td>
</tr>
<tr>
<td>Proper general environment practices</td>
<td>Fertilizing</td>
<td>Selection of seeds for the nursery</td>
<td></td>
</tr>
</tbody>
</table>

**On the Job**

One of the first steps is to determine what activities in which the student will participate while on the job. This should be developed between the coordinator and the employer. The plan should be based on the ability of the student, the type of the occupation, and the actual conditions at the training site.

### Teaching Materials

The class should serve as a guide to the teacher in developing a course of study for related instruction in the classroom. In Texas after the teacher has developed this, he can check with the Research Center for information on his occupation.

Extensive work in developing teaching materials for Agricultural Occupations has been done by the personnel of the Agriculture Education Teaching Materials Development Center at Texas A&M.

**FEED AND SEED SALES AND SERVICE MAN**

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<tr>
<th>FEED AND SEED SALES AND SERVICE MAN</th>
<th>Record of Work</th>
<th>Course of Study</th>
<th>Record of Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scheduling and customer relations</td>
<td>Selling</td>
<td>Customer relations</td>
<td>Types of seeds, stocks, sales扭转</td>
</tr>
<tr>
<td>Feeds</td>
<td>Selecting</td>
<td>Types of seeds, stocks, sales扭转</td>
<td>Types of seeds, stocks, sales扭转</td>
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<tr>
<td>Feeds, and supplies</td>
<td>Selecting</td>
<td>Types of seeds, stocks, sales扭转</td>
<td>Types of seeds, stocks, sales扭转</td>
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<tr>
<td>Feeds</td>
<td>Selecting</td>
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<td>Feeds</td>
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**Summary**

The key to a successful program in Cooperative Education is to have students in Vocational Agriculture classes for two years before they take Cooperative Education. During this time they should have been taught the basic agriculture fundamentals; with this background they will have an understanding of basic agriculture sciences and should have an idea as to whether they wish to pursue an agriculture related occupation.

The third year the student could take Advanced Agriculture or enter the Cooperative Part-time Program. In smaller communities where there are not adequate training stations, a certain amount of information related to agriculture occupations, may be taught since many students leave the smaller communities in search of employment.
Instruction Areas in Agriculture

About a year from now the U.S. Office of Education will publish a comprehensive list of areas of instruction (subject or course) offered in public schools. At a meeting of an ad hoc committee for agriculture in Washington, D.C., in February, 1969, a classification was devised. The areas listed have been under continuous consideration. A major purpose of this article is to encourage teachers, supervisors, administrators, and interested citizens to discuss the classification and to suggest changes.

When published, the list will be used not only as a guide by individual states, but also as a guide for national needs should be made. The instruction areas in agriculture tentatively are being suggested so that the classification of reported individual student occupational objectives. They are not exhaustive. Curriculum development is a function of individual schools, and a process to be carried out with each student. The ad hoc committee on developing the outline, clearly pointed out that supervised occupational experiences programs (e.g., FFA) and related leadership activities are important instructional media; and highly significant. Participation in these activities will make contributions to the guidance and general education development of students.

Today's broadened concept of agriculture includes farm and nonfarm-related technical schools to establish programs in addition to preparation for general farm occupations. State-wide surveys of off-farm occupations in which knowledge and skills in agriculture is essential, such as in the technical and vocational agricultural education curricula, is the business and other vocations that will employ the largest number of workers in the next five years.

From 1917 to 1964 the term "vocational agriculture" described rural high schools that intended to provide broad advancement in farming. These are few other vocational agricultural schools, specifically in agriculture. Now known as agricultural programs, closer attention is being paid to the areas in agriculture for which occupations in farming, will continue to enroll the largest numbers of students in most states. The expanded list of instruction areas includes definitions and examples of occupational titles in agriculture.

Agricultural production. Agricultural production may be defined as an organization of subject matter and learning activities connected with principles and techniques of production of livestock, field crops, fruits and vegetables, fish, milk, meat, hay, and ornamental plants. In animal science, plant science, farm mechanics, farm business management, instruction specific to each production enterprise is emphasized. Knowledge and skills taught involve the economic use of agricultural land, labor, capital and management. The efficient operation of modern farm equipment and the harvesting and marketing of high quality products is important. Examples of occupationally specific agricultural productions are general farmer, livestock farmer or raiser, dairy farmer, poultry farmer, farm equipment operator,ara.

Agricultural supplies. Businesses that furnish production needs to farmers deal in specialties and combinations of manufacturing, sales and services. The sale of local physical supplies procured by farmers are agricultural chemicals, livestock feed, farm crop seeds, crop fertilizers, pesticides and other supplies including small equipment. Usually the farm supply retailer that handles supplies for farmers also will furnish services such as grinding, mixing, conditioning and application. Examples of occupations in agricultural supplies, in which work is done on the farm, are farm service or sales, credit and sales, advertising, marketing and business management.

Omnium agriculture. These types of occupations include other types that provide services, distribute, and utilize agricultural plants for ornamental or landscape purposes. Examples include floriculture, aquatic, turf, and horticulture. Knowledge and skills taught by schools in ornamental agriculture, are agricultural supplies managers, agriculture chemicals fieldmen, seed salesmen, pest control inspectors and feed mill equipment operators.

Agricultural mechanics (Sales and service). This area of instruction is important enough to be a specialization in agricultural high schools, technical institutions and community colleges whose graduates are needed in farm machinery dealerships in regions of high farm production. It deals with sales and service of agricultural power units, with integrated machinery, and related equipment. Examples of job titles are agricultural mechanic service manager, agricultural machinery salesmen, agricultural equipment operators, and agricultural machinery mechanics.

Agricultural products (processing and marketing). After farmers have produced quality products, the modern American agricultural industry is organized to perform many services and operations including assembling, sorting, grading, processing, manufacturing, storing and marketing. Some of the functions maintain the quality of the product, other operations add value. The major food product areas in agricultural products processing and marketing are (1) meat, poultry, and eggs, (2) dairy products, (3) fruits and vegetables, and (4) grains. Examples of food marketing occupations in which technical level knowledge and skills in management are used are meat processing manager, fruit and vegetable market manager, livestock buyer, purchasing equipment operator, grain elevator operator, agricultural commodity graders, and quality control technicians.

Agricultural resources. This is an organization of subject matter and learning activities designed to provide opportunities for students to study principles and operations in the conservation and improvement of environmental resources such as forested and other natural areas, fish and wildlife, soil, water, air, and with the establishment, management, and operation of outdoor recreational facilities. Examples of agricultural resources occupations in which vocational and technical education in agriculture may be used are recreation farm manager, wildlife conservation officer, fish hatchery worker, farm soil worker, and park conservation officers.

Forestry. The central function of technical education in forestry is to prepare workers for the management of forest grown as a crop. Other aspects of employment at least as important are forest protection, logging, wood utilization, special products production, and cooperation with persons whose work is in conservation or recreation. Some occupational titles in forestry for which technical education is appropriate are forestry aid, Christmas tree grower, nursery operator, logger, and log scaler.

*This article was written by Dr. Glenn Stevens at the request of the Editor. The picture and information in the following paragraphs was furnished by Dr. James Head, Center for CCS.

Committee members of the Ad hoc Cursory for Agriculture, which met February 11-13, 1969, in conjunction with the Cooperative Project for Standardization of Technology in Instructional Programs of Local and State School Systems, in the establishment of this classification, continue was presided by the American Vocational Association and its Vice President for the Agricultural Division, Floyd Johnson, Jr., El Verde Baptist, Chief, Agricultural Education Service, Division of Vocational and Technical Education, Office of Education, provided continuous assistance in the preparation of materials, the establishment of the committee and the arranging of the report.

Front row, left to right: JOHN D. PUNSMAN, Specialist, Educational Records and Reports, Office of Education; JAMES W. PENSEL, Agricultural Education Specialist, Center for Vocational and Technical Education, Ohio State University, 1921 Riverboat Bldg., Columbus, Ohio 43212; JACOB S. McHALE, Assistant Professor, Suits and Post High School, College of Agriculture, University of Massachusetts, Amherst, Massachusetts 01003. Second row, left to right: EARL H. WETFELD, Occupational Analysis and Placement Service Bureau, 350 University Avenue, Madison, Wisconsin; HARRY A. GANTZ, Director of Agricultural Education, Washington, D.C.; NORMAN G. KNOWLES, University of Florida; LILIAN W. BARKER, Staff Assistant, Department of Agricultural Extension, Division of Agricultural and Conservation Services, U.S. Department of Agriculture, Washington, D.C. 20250. JAMES DIETERT, President, National Educational Association of Teachers of Agriculture, and Teacher Education, Tamworth, University of Wyoming, Laramie, Wyoming; W. D. DEEGY, Assistant Superintend, McCook County School, Court House, Pokahontas, Idaho 83349.
GRASS ROOTS—

Suggestions for Improving Teacher Recruitment

G. R. COCHRAN, State Supervisor
Agricultural Education, St. Paul, Minnesota

Professional strength is dependent on many factors. Possibly the most important factor would be the need for participation by members of the profession, regardless of position, in the discussion of issues, development of policy, and implementation of action. This would involve teacher trainers, state supervisors, school superintendents and teachers in the field. With this in mind, it is appropriate that dialogue on critical issues in agricultural education take place at all levels in the profession.

Situation

Teacher recruitment has been a critical issue in agricultural education for several years. The situation in Minnesota was most serious this year with the possibility that several schools might have to discontinue offerings of vocational agriculture because of a lack of qualified personnel. Recruitment of sufficient numbers of members to provide an adequate force of manpower needs to be increased four to 10 years in the future. The Minnesota Vocational Agriculture Instructors’ Association evidenced their concern with recruitment when approximately 500 teachers devoted one-half day to the 1967 Conference on the discussion of this problem. The teachers involved in the discussion were divided into groups of about 100 participants, each group independently listed recommendations for possible courses of action. This session of the conference was organized under the direction of the authors.

The presentation of the vocational agriculture teachers’ suggestions will be divided into four sections: General Recommendations, Recommendations for the State Department and Recommendations for the University.

General Recommendations

A dominant concern of vocational agriculture teachers, with regard to recruitment, was the seemingly eroding position of vocational agriculture in relative salary compared with other employment opportunities for college agricultural graduates.

1. Offer more opportunities to continue education in agriculture by allowing more scholarships.

2. Maintain and defend a “positive” attitude concerning agriculture and agricultural objectives.

3. Make certain that prospective and current vocational agriculture instructors are aware of the employment conditions of industry and private business.

4. Emphasize 13- to 18-month study and study selection among school districts with the aid of the state supervisor.

5. Strengthen the state agricultural teachers association and a special policy board for the administration and school board members that specify the qualifications and training of future vocational agriculture instructors.

6. Produce and distribute a more extensive brochure on opportunities in agriculture for students of the opportunities in vocational agriculture.

Recommendations for the State Department

The teachers viewed the State Department of Education as more of a catalyst rather than an agency responsible for teacher recruitment. Their general concern was that the members of the supervisory staff act in an advisory and supportive role in teacher recruitment.

1. Encourage the establishment of more interdepartmental departments. This would tend to make working conditions more attractive for those interested in the profession because of better defined responsibilities.

2. Establish and maintain more extensive contact between area coordinators and state supervisors and school administrators and guidance counselors.

3. Conduct or encourage frequent meetings involving the state during the year so that vocational agriculture instructors can determine which groups and areas would be most interested in the need for potential agriculture teachers.

Recommendations for Voc-Ag Teachers

Vocational agriculture instructors in Minnesota assume much of the responsibility for teacher recruitment. Not only do they realize the obligation to identify and encourage prospective agriculture teachers, but they also assume the mandate to represent agriculture with a positive image within the school and community.

1. It is the vocational agriculture teacher’s responsibility to work with the school’s guidance counselor to encourage parents and the student in the process of entering college or agriculture.

2. After college, reorient the vocational agriculture instructor and the Vo-Ag teachers association to maintain contact with the student to realize the decision to enter teaching.

3. The Vo-Ag teacher has the responsibility to inform and motivate members of high school staff with the opportunities in vocational agriculture by means of third-term counseling. This might be effective by personal interviews in the FFA activities and visits to student planning programs and agricultural meetings.

4. The state Vo-Ag teachers association should have representatives at all state and regional department meetings. The association should prepare “maps” for the news media indicating the strengths of qualified personnel and the opportunities in agricultural education.

Recommendations for the University

The university position should be to support, encourage, and be accountable to potential students. This would include

The major change that has been made in the curriculum of vocational agriculture during the past several years in the area of teaching practice, the course of study away from the production agriculture to include the many diversified areas of agriculturally related occupations. Another change that has been made is that of giving greater attention to training those people who may be employed in nearby industry and at the same time carry out the program of part-time farming. The farm shop program has been changed considerably with additional facilities and equipment being made available.

Several factors have substantiated the belief that these changes were needed and have increased the interest in vocational agriculture on the part of students in the school. Some of these factors are:

1. The co-op has steadily increased over the past few years. The opportunity for employment in agriculture industry has increased tremendously within the area.

2. (Increased farm mechanization has created a demand for students with basic shop skills that can be acquired only in a shop shop program.

The trend in the changes in the vocational agriculture curriculum is toward the career or technology type of instruction. This type of program must be highly intensive and well coordinated if it is to be of service. It can be helped by training in agricultural education.

Vocational agriculture instructors are aware of a shortage of qualified teachers in Minnesota. It is in their educational offerings that they feel they will help improve the teacher recruitment. The following will form the basis of the recommendations to improve the solutions of the problem will be to assign priorities among students and take the steps necessary to implement the recommended action.

This was not the only issue that the department and the state teachers association confronted at the 1967 conference. Using the same format, they also discussed future needs and trends of the future farmers of America, the place in serving the broadened objectives of agriculture, and the impact of vocational agriculture. In each of these, individual and collective action of educators was the topic of conversation and the need to prepare for it.

News and Views

H. N. Hursecker served as chairman of a joint committee on Ag Education of the U.S. Department of Labor, the National Academy of Science, and other Federal agencies to aid in the development of education programs for high-school students. The committee, formed in July, 1965, is working to improve the agricultural education in schools. The committee, formed in July, 1965, is working to improve the agricultural education in schools. The committee, formed in July, 1965, is working to improve the agricultural education in schools.
Post-High School Curriculum for the Grain, Feed, Seed and Farm Supply Industry

RAYMOND M. CLARK, Michigan State University

ALVIN E. OLIVER, Executive Vice President, Grain and Feed Dealers National Association

What kind of program do we need for the post-high school training of young men for the grain, feed, seed and farm supply business? This is the key question before a group of business men meeting at Arliss House in Virginia in December, 1965. The meeting was called by the Grain and Feed Dealers National Association to help make plans for the preparation of a curriculum guide to fulfill a contract with the U.S. Office of Education.

The meeting was significant in that it was called by the association to assist in establishing the guide lines and to make recommendations as to the kind of employees needed for the industry. This responsibility was much like that of an advisory committee to give advice on any other vocational program. However, the fact that the Office of Education had contacted with the association and that the meeting was called and conducted by the association staff made it particularly significant.

Membership of the committee was also significant. Several of those representing industry were formerly professors in well-recognized universities. Some had been outstanding teachers of vocational agriculture and are now occupying important positions in their respective firms. Others are professors in universities where their work is very closely allied to the needs and practices of the industry.

The committee was challenged to think through and finally to recommend the courses they would suggest for a two-year post-high school program consisting of four 17 week semesters. They were not presented with a prepared program and asked to react to it and to give it their stamp of approval. After working long hours for the three days and after much discussion the members listed twenty-three courses. They felt that twenty of these would be essential, but that three might be used as elective courses depending on the geographical area in which the program would be offered. For example, in some parts of the country a study of beef cattle feeding, management, and pasture control would be needed while in other areas a similar study of poultry or dairy, or even in cattle might be appropriate. Following are titles of the courses in the sequence in which they should be studied:

First Semester
- Crop Production
- Soil Science I: Fertility
- Applied Animal Nutrition
- Communication I: Written, Graphic
- General Farming
- Animal Health
- Farm Management I: soils
- Animal Health
- Personal Finance and Management
- General Farming
- Applied Animal Husbandry I: Beef
- Farm Management I: Non-Food
- Personnel Relations
- Grain Handling, Waving and Merchandising
- General Farming
- Applied Animal Husbandry II: Swine
- Food and Drug Regulations
- Security

Second Semester
- Crop Production
- Soil Science II: Fertility
- Applied Animal Nutrition
- Agricultural Economics and Marketing
- General Farming
- Animal Health
- Farm Management I: soils
- Animal Health
- Personal Finance and Management
- General Farming
- Applied Animal Husbandry I: Beef
- Farm Management I: Non-Food
- Personnel Relations
- Grain Handling, Waving and Merchandising
- General Farming
- Applied Animal Husbandry II: Swine
- Food and Drug Regulations
- Security

Third Semester
- Crop Production
- Soil Science II: Fertility
- Applied Animal Nutrition
- Agricultural Economics and Marketing
- General Farming
- Animal Health
- Farm Management I: soils
- Animal Health
- Personal Finance and Management
- General Farming
- Applied Animal Husbandry I: Beef
- Farm Management I: Non-Food
- Personnel Relations
- Grain Handling, Waving and Merchandising
- General Farming
- Applied Animal Husbandry II: Swine
- Food and Drug Regulations
- Security

Fourth Semester
- Crop Production
- Soil Science II: Fertility
- Applied Animal Nutrition
- Agricultural Economics and Marketing
- General Farming
- Animal Health
- Farm Management I: soils
- Animal Health
- Personal Finance and Management
- General Farming
- Applied Animal Husbandry I: Beef
- Farm Management I: Non-Food
- Personnel Relations
- Grain Handling, Waving and Merchandising
- General Farming
- Applied Animal Husbandry II: Swine
- Food and Drug Regulations
- Security

The curriculum guide was turned over to the Office of Education on July 1 and representatives of each of the twenty-three courses, including suggested lecture/discussion topics and possible field trips with students to visit appropriate aspects of the business will be helpful.

Next Steps

Teacher education: Many avenues present themselves as next steps in this program. One of the first deals with programs of teacher education. It is desirable for industry and teacher education to "team up" to provide specific in-service training for principles of salesmanship, their laboratory activities should be geared to selling pickup techniques typically offered by the farm supply business. In the same way application of content of courses in Foods and Feeding, Agricultural Chemistry, Agricultural Economics and others should be made to the needs of the grain, feed and farm supply business.

To actually get application of the content of the course to the industry will require teachers who (1) have some understanding and willingness to make the applications as part of their class work, and (2) who have background experience closely enough associated with the industry to make intelligent application. To assist in this problem, field trips with students to visit appropriate aspects of the business will be helpful.

Experience

The committee did however place a heavy emphasis on the need for occupational experience as part of the training program. Those representatives of the association and others who were happy to cooperate in providing excellent occupational experience for students. They expect that such programs will be well planned and well coordinated by the school personnel.

The opportunity to visit several different types of business associated with the grain, feed, seed and farm supply industry and to work with the managers and others in these firms provided a rare opportunity for an "on-the-job" education to discover how those on the working end view the activities and the product of vocational education programs. This kind of experience is one which should influence all training programs to a much greater degree than in the past.

The guides

The curriculum guide was designed under contract between the Grain and Feed Dealers National Association and the U.S. Office of Education. Alvin E. Oliver is Executive Vice President of the national association.

The Curriculum Guide is a 436-page book suggesting a two-year post high school curriculum.
Organizing the Two-Teacher Department

WILLIAM DOUGLAS SPRADLIN, Vo Ag Teacher, Smith's Station, Alabama

Living in a period of change and advancement is one of the most interesting and challenging experiences of any person. The attitude of the teachers involved probably is the key to the success of these programs. An atmosphere should prevail that would allow the discussion, addition, modification, adjusting, evaluation, and implementation of ideas, philosophies, and objectives that will benefit the students and teachers and provide the program most beneficial to the students, be they urban or rural.

The Program

The type of program to be offered will determine the organization of the department. It is possible that for administrators in small systems that the first two courses should be about the same over the state. The first course, Farm Science, is an introductory course to Vocational and Technical Education, the Ohio State University. The occupational titles used in this course are most effective in the beginning and first-year courses. These courses will be organized with the industry representatives in the membership. These councils will be able to provide valuable information and assistance on many of the steps to be taken for the implementation of the program.

Glenn Z. Stevens

(Continued from page 105)

Other agriculture, this is not an interaction area with a unified body of subject matter content. Rather it is a classification that includes certain units from the other instruction areas, and units introductory to further education for employment in specialized businesses and services, education, research, and government. Examples of other agriculture occupations are vocational agriculture instructor, county agricultural extension agent, ASCS compliance supervisor, and farm loan officer.

Comprehensive lists of occupational titles in all of the areas of this classification are given in a recent publication titled Occupational Guidance for Off-Farm Agriculture. It may be obtained from the Center for Vocational and Technical Education, The Ohio State University. The occupational titles used in this course are most effective in the beginning and first-year courses. These councils will be organized with the industry representatives in the membership. These councils will be able to provide valuable information and assistance on many of the steps to be taken for the implementation of the program.

Summary

The successful organization of a two-teacher department needs on: 1) Cooperation between teachers involved; 2) Well defined programs to suit the student's needs first—community needs second; 3) Organizational Structure that will school objectives be accomplished; and 5) Adequate facilities.
Special Classes for Students with Special Needs

G. L. Dowell, Vo-Ag Teacher, Cleveland, Mississippi

For years one of the problems of the vocational agriculture program at the Cleveland, Mississippi, Special Consolidated School has been too many boys enrolled in vocational agriculture classes. Many of these students were capable scholars and could make satisfactory progress in academic subjects, while others could not or did not do satisfactory work in academic subjects and were certain to be high school dropouts.

With the passage of the 1963 Vocational Education Act, the way was opened, legislative wise, for the school administration and the State Vocational Board to recognize the programs of vocational education in the public schools.

Special Classes

One of the first thoughts we had at the Cleveland School was to set up a special class in farm power and machinery for those enrolled in their vocational agriculture class who were not making satisfactory progress in school. In cooperation with the State Vocational Education Division of the State Department of Education, we began, with the assistance of the school administration, the process of transferring certain students from the regular vocational agriculture classes to an approved (T-E) class in farm power and machinery.

The changes made in the learning environment of the students transferred to the special class in farm power and machinery were extensive. Some of these are:

1. A more homogeneous grouping of students. Test scores and grade achievement were carefully considered as the basis for the transfer.
2. Longer class periods in the shop laboratory are provided. Three hours per day, or 560 hours per year for three years.
3. Related subjects are taught on a more applicable basis.
4. More specialized equipment is provided for the shop.
5. Skilled mechanics, under the supervision of the shop teacher, provide instruction in the mechanical phases of the course.
6. Work experience under supervision is provided for farm machinery and in plantations in the area.

Major Objective

The main idea of the special class in farm power and machinery is to help meet the labor needs of the Mississippi Delta. Cleveland is located in the heart of the Mississippi Delta where farm mechanization has developed rapidly. The need for skilled workers is acute.

The training program is designed to provide for different levels of achievement. It is recognized that not all boys who enroll in the special class will finish as first-class mechanics, but, even though we have had the class going for less than a year, we know that every boy who finishes the course will be an improved worker in the complex farm mechanization which has taken place in the Mississippi Delta.

High School Program

Arrangements have been made with the school administration for students in this special class to receive their high school diplomas when they satisfactorily complete the school requirements. These students are not isolated from other students in the school. They may participate in all school activities, including athletics. Though the course is designed as a terminal course, a student may continue his study in a technical institute or even a senior college. However, it is not expected that many will be academically capable of meeting the minimum college entrance requirements.

An experienced teacher, T. E. C. Quigley, is the instructor for this course. He is well qualified and is very popular with the students.

The course is designed to run for a period of three years. As an experiment, it was pointed out that students enrolled in this course get academic credit in English, Math, etc., depending on their ability in the special class in farm power and machinery. (Continued on next page)

News and Views

H. N. Hunsicker and John Lassen are the staff members in charge of a Training Institute for 105 teachers and administrators of technical education who are interested in agriculture. The institute was held at Cobleskill, New York, in June. The institute, sponsored by the National Science Foundation and the National Agricultural Education Research Committee, was well attended.

The special feature of the institute was a field trip to a dairy farm where students were able to observe and learn about dairy farming. The students also had the opportunity to visit a local high school where they were able to observe how the students were using the skills they had learned in this course.

We are glad to see this continuing interest in agriculture education. We feel that we are not only helping students to improve their skills but also providing them with the tools they need to succeed in today's world.

Y. A. G. Ag Stamps

All of the students in the Ag Stamps program are being prepared for production agriculture, whether it is the intensive changes in agriculture.

1. Some of the stamps are being used in the classroom as well as in the field. The stamps are being used to help students understand the principles of agriculture.
2. The overall quality of the regular vocational agriculture students has been improved. Students are doing a better job of preparing for the national agriculture test.
3. More emphasis is placed on the use of computers in the classroom and in the field. This is being done to help students understand the importance of computers in agriculture.

We feel that we are not only helping students to succeed in agriculture but also providing them with the tools they need to succeed in today's world. We are glad to see this continuing interest in agriculture education.
There is an emerging need for an organization of students in agricultural technician training programs. These young practitioners have contributed significantly to Vocational Education. They have made an important and effective contribution to the service of American society. They are an effective, rarely recognized, but ever increasing force in the technical field of Vocational Education.

The need for such an organization is recognized by many educators in the field. The American Vocational Association, the United States Department of Labor, and the National Vocational Education Association are among those who have expressed this need.

Several organizations of students in agricultural technician training programs have been established. These organizations have been effective in promoting the interests of their members and in providing leadership for the development of the field of Vocational Education.

The Agricultural Technician Students Organization (ATSO) is a national organization of students in agricultural technician training programs. It was established in 1960 with the objective of providing leadership for the development of the field of Vocational Education.

The ATSO is open to all students enrolled in agricultural technician training programs. It provides opportunities for students to participate in decision-making processes, to develop leadership skills, and to participate in the advancement of the field of Vocational Education.

The ATSO has a national board of directors consisting of representatives from each of the states. The national board is responsible for the overall direction and administration of the organization.

The ATSO has regional directors who are responsible for the development and implementation of programs in their respective regions. The regional directors are elected by the students in their respective regions.

The ATSO also has a national officers' council consisting of the national president, the national vice president, the national secretary, and the national treasurer. The officers' council is responsible for the overall administration of the organization.

The ATSO is supported by a number of sponsors, including the American Vocational Association, the United States Department of Labor, and the National Vocational Education Association.

The ATSO is an effective, national organization of students in agricultural technician training programs. It provides opportunities for students to participate in decision-making processes, to develop leadership skills, and to participate in the advancement of the field of Vocational Education.

The ATSO is an important and effective force in the development of the field of Vocational Education. It is a vitally needed organization that we should support and encourage.
Agricultural Education

In the Community College

EARL McCOLLUM, Head, Agriculture Department, Treasure Valley Community College, Ontario, Oregon

Can anyone deny that today's world of agriculture is rapidly becoming one of mechanical complexity, and that tomorrow's agriculturalists must be well educated, articulate technicians?

Many former agriculturists were able to function satisfactorily with only a high school education and had to learn the specialized skills as they worked. In today's agriculture such a haphazard manner of technical knowledge and skill is being required as to severely limit people with only a high school education. Knowledge is required in many technical areas such as soil science, fertilizers, pest control, management, and many others. Skills are required in soil preparation, chemical usage, irrigation, machinery maintenance, and repair, record keeping and various manipulative skills.

As these areas of knowledge and skill become more and more complex, they become highly required as more of the individual's time. As a result we are living in an era of specialists in agriculture. There are caretakers and specialists in management, soils, crops, livestock, etc. The agricultural college at the professional level and there are now being developed technical positions in these same areas to give agricultural producers the advantages of modern technology. Farmers are seeking technicians who understand soils, chemistry, and fertilizer to coordinate between them and the farmer. Machinery dealers are seeking technicians who understand soil washing, crop harvesting, machinery maintenance and machinery families and who can communicate between them and the farmer. Food processors are seeking technicians who understand quality of produce, pest control, marketing, and harvesting so the importance of these factors in processing can be related to the farmer.

Community College Philosophy

It is in these areas that the challenge of the future lies. Those persons who operate between the technician and the farmer or the technician and the consumer must be specialists in their own. This will require training and preparation beyond high school and it is this person who is tomorrow's community college hopes to prepare. It is here at the community college that continuing technical training of the farmer will play a vital role in the present and an important role in the future.

Community College Programs in Agriculture

Colleges located in areas with intensive agriculture supporting a large portion of the economy are offering technical programs in Production Agriculture which include such technical subjects as soils, agricultural chemicals, horticulture, crop management, agriculture surveying, livestock management, agricultural business procedures, welding, irrigation, and drainage. Along with these technical courses students receive general education in communication skills, mathematics, psychology, health, American Institutions, report writing, and economics.

A technical agriculture program is being offered in some Community Colleges that incorporate all of the above training with in-school training of school age students to equip the student for employment in industry's labs.

The farm equipment dealers have requested additional trained equipment repairmen to offer specialized training in machine mechanics, welding, drafting, practical hydraulics, livestock equipment, agricultural power units and machinery, farm machinery repair, farm management, and industrial management.

Some Community Colleges are offering continuing education training for farmers and ranchers. The technical work in these programs includes water resource development, agriculture surveying, agricultural business procedures, management, agricultural chemicals, soils, crop management, range and forest plant, range management, ence.
What Does It Take To Sell Feed?

JAMES J. AIRBRACH, Michigan State University

What vocational competencies are necessary for the performance of sales activities essential for the performance of the sales function in the feed industry? The nine most important activities as rated by a jury of twelve feed industry experts were identified for this study. The nine activities had an average score of 3.5 or more when a five-point scale was used: 0—not needed; 1—little importance; 2—important; 3—very important; and 4—essential.

The author developed an interview instrument which included forty competencies which might be considered essential for the performance of the nine sales activities.

A jury of twenty-four experts was selected and interviewed, with six representatives from each of four sub-divisions—feed dealers; sales training directors; agricultural education researchers; and business education researchers.

TABLE 1

Compeency

Frequency

1. Ability to identify customers and their needs
2. Understanding feed prices and business operations
3. Ability to use sales techniques and selling tactics
4. Understanding production anatomy
5. Knowledge of feed production
6. Ability to evaluate feed materials
7. Knowledge of feed evaluation
8. Ability to determine feed labeling requirements
9. Knowledge of feed analysis
10. Ability to explain and interpret the feeding results of his customers
11. Understanding feed uses and the needs of his customers
12. Understanding the research findings of livestock (poultry) feeding trials; ability to use this information to solve problems of his customers and to explain the solutions to his customers
13. Understanding the conditions of the farm
14. Understanding the potential of feed for a given use
15. Understanding the nutritional needs of livestock (poultry)
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Summary

The results of the study appear to indicate that the competencies identified as essential for the performance of the sales function at which the cooperatives could be taught should be considered by those responsible for developing curricula and courses of study for persons in or preparing to enter positions which require these competencies.

Employment Opportunities in Agriculture

With the world population and feed growth as much as it is and the growth of the world in an ever-increasing rate, there is a considerable need for personnel which could be supplied with the advancement that the outlook for employment of unskilled persons in the agriculture is extremely bright. In addition, the farmer who sees himself in the future with the realization that agriculture is one of the most important and knowledge industries that were previously unnecessary.

Specifically in this country and in the next few years, job opportunities are rapidly opening. Technicians work on a team with engineers, scientists, supervisors, and skilled craftsmen. They design and build machinery, operate and maintain equipment, and work with their minds as well as their hands. Technicians' jobs frequency require the ability to understand scientific principles and to solve design, process or service problems.

The study concludes that the more extensive and better knowledge of laboratory equipment, procedures and techniques and the more experienced in nutrition and animal health and production the veterinarian in the feed industry will be.

Future Bright

These vast areas of opportunity have been expanding for at least these two years and show no sign of decreasing in growth in the next few years. Many of these areas are starting to make some considerations for a career can be selected from many avenues to travel in agriculture. For example, the employment opportunities in agriculture could be anything from the employee and an educational institution.
Agricultural … … Education

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Featuring COLLEGE PROGRAMS FOR PROSPECTIVE TEACHERS

Stories in Pictures

GILBERT S. GUILER
Ohio State University

Student Teachers Doug Campbell and Dennis Workman in Agricultural Education receiving instructions and counseling at Muscogee Community College, Iowa. —Photo by Deloney.