Stories in Pictures

by Richard Douglass

POWER TOOLS WORKSHOP — Rott Taylor, center, representatives of Rockwell Manufacturing in Atlanta, direct Alabama agriculture teachers E. G. Hendrix, Jasper, and S. A. Walton, Centre, in repair of a shop circular saw. (Photo supplied by Cecil Gant, Agriculture Division, Alabama State Department of Education.)

Mississippi is proud of the program made in vocational education. Pictured above is Ronald A. Bright, Mississippi agriculture teacher, meting at the University of Illinois for a doctoral degree in vocational education in Agriculture. (Photo by Robert W. Walker, University of Illinois.)

Roger Johnson, Agricultural Occupations Instructor at Glen City High School, operating a new mower in the grounds of school. This is one of the operations of the Johnson's business with during his two-week internship at Marion-Peoria Stone Company at Mt. Vernon. Mr. Johnson's internship was an intensive four-week camp, No. 1 and 21 at RLE. Edward A. Lipp, Thomas R. Sibert as instructors. (Photo supplied by Dr. Sibert, Department of Agricultural Industries, Southern Illinois University.)

Eugene Trotter, right, a doctoral student at the University of Illinois, seeks advice concerning proposed papers from his advisor Dr. David L. Williams. The project of persons for leadership roles in vocational agriculture is an important function of the Illinois Agricultural Education Association. (Photo by Robert W. Walker, University of Illinois.)

Dr. Robert Campbell, associate professor of agricultural education, addressed the agriculture section of the 44th annual Southeast Wisconsin Education Association convention held on the campus of the University of Wisconsin-Platteville. A vocational agriculture teacher in attendance were Don Kolar, Farmington; Dale Herber, Port; Richard Martin, Iowa-Grant; Jerry Strochoz, Calhoun; Jack Tschida, Danville; Paul Other, Lom- center; Bob Roy, Roland and Gene Melder, Platteville. (Photo supplied by Department of Agricultural Education, University of Wisconsin-Platteville.)

Theme — POST-SECONDARY EDUCATION

Do Your Students View Post-Secondary Education as an Advanced Step in Their Planning Toward a Career?
Managing Editors
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Book Reviews
JAMES P. KEY, Oklahoma State University, Stillwater, Oklahoma 74074

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JASPER W. HALL, Wall Street Journal, New York, New York 10005
CLIFFORD NEVON, University of Maryland, College Park, Maryland 20742

HISTORICAL
G. C. LOBENS, Washington State University, Pullman, Washington 99163

The Agricultural Education Magazine
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December, 1972
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There is little question that agricultural education is well established on the secondary level, in two-year technical colleges, and on the four-year and graduate levels. In our constant search for ways to improve the quality and variety of education in this field, a one-year occupational program has been developed at the college level. Recent data indicate the success of well trained, competent workers in filling the gap between the skilled technician and the graduate at a high school vocational program.

In answer to this need, Cobbskill Agricultural and Technical College, in September 1969, instituted one-year occupational programs in four areas of agriculture: agriculture mechanics, dairy cattle management, greenhouse maintenance, and grounds maintenance. These programs were set up to provide training for those people who desire direct entry into employment, as well as for those people already employed who wish to improve and update their skills. Many of the students enrolled in these courses are graduates of high school vocational programs. The motivation, development of interests and capabilities, and instruction they received at the level they were considered eligible for continue their education at Cobbskill.

Advantages of the Program
The one-year occupational program offers an opportunity for college students to expand their high school graduate who has very definite vocational goals and wants to join the working world in the near future. Although he recognizes the benefits to be gained by further education, he does not want to devote two years of his time to this program.

Also, some of our youth are frankly uncertain of their ability to meet the standards of the two-year technical college. The one-year occupational program is geared to the abilities and needs of these people, and may provide the additional training the young people want.

The youth who want specialized training in one or two areas in educational sciences, mathematics, or the sciences in agriculture is motivated by the direct application of the material covered at the one-year level.

Goals of the Program
One important objective of these one-year programs is to teach the student the skills (manual and mental) necessary for a career in a field other than teaching, either being deferred or waiting to enter college, rather than being deferred to later semesters as is sometimes the case in two-and four-year programs.

Surveys of employers show that they want employees who can write and speak effectively. The fact that teachers also express the need to know how to write a clear, concise report. In addition to the 25 to 30 hours of practical, applied work in their specific occupational field, 6 units in communication skills are required of each one-year student. This course is offered at the University of Nebraska. Cobbskill maintains a mink herd of purebred dairy cattle. Over 200 acres of land provide ample pastureage and forage crop acreage. A conventional greenhouse complex is available. Plant material: greenhouse, nursery, and propagating beds. The student has an opportunity to work with a variety of facilities, livestock, and crops of commercial importance, as well as with the modern equipment of the business.

The graduate of the one-year post-high program is not currently given his fair share of public esteem for the special training and skills that fit him for essential places in our society. The graduate of the one-year post-high program is not currently given his fair share of public esteem for the special training and skills that fit him for essential places in our society. It is time we recognized this fact and gave these graduates the recognition and support they deserve.

Guest Editorial... EXPANDING EDUCATIONAL OPPORTUNITIES - The One Year Occupational Program
Bruce W. Emann... Associate Professor and Agricultural Technical College Cobbskill, New York

The graduate of the one-year post-high program is not currently given his fair share of public esteem for the special training and skills that fit him for essential places in our society.

Importance of the Teacher
Some of the students enrolled in the one-year occupational courses may have a low self-image, because they feel that their achievements in high school have been below average in quality. Much of this is due to the high emphasis placed on scholarship, scientific, and writing abilities by many of the popular standardized tests. We have heard a great deal about the gifted student today, but very little about the vocationally talented student. We have been influenced by the measurement of I.Q. because we had the tests. We still do not have good tests to identify the vocationally talented student. There is a real need, then, for the occupational programs to try to improve the skills of these students in a variety of areas of competency, and to show them that the skills which they are learning are very real and essential to the occupational world which they plan to join.

(Continued on next page)
The Problem of Status

There is no question that there are many young people in our high schools today who could benefit from this kind of post-high school program. A very important factor inflating their choice of higher education is that of status. The high school voice-teacher can do much to assure the success of his program by awakening in students the great importance on areas in which they are interested and in which they have a good chance of achievement. He can also talk with both parents and students, explain why a cooperative, well-planned program of occupational training can offer many of the benefits of college work and prepare the opportunities for success on the job, even though a degree is not conferred on the student at the completion of his studies.

Implications for the Future

The general public needs to be made aware of the importance and realize the education gained from the program. The four-year college degree has long been held a position of prime respect in our society. As our two-year college graduates command increasingly important and satisfying positions in our technological society, the associate degree is gradually coming to be respected. Thus, the graduate of the one-year program is not currently given his fair share of public esteem for the special talents, skills, and capabilities that fit him to fill essential places in our society.

Educators in the many phases of educational agriculture must find a variety of new ways to educate the public to appreciate the worth of higher education on all levels, to work on the one-year program, to associate it with the special skills and abilities. As these graduates are successfully employed and confidently achieving their goals, and in so doing, their parents, the program will indeed be well started.

From Your Editor...

The "Career Education" theme for 1973 is designed: (1) to stimulate the interest of the agricultural educator toward examining his own program, (2) toward his identifying ways he can make his program more meaningful for students, and (3) to describe for him ways he can assist with career-oriented programs on various levels. Thirteen for five of the last six months will "round out the series." The November issue will feature the NVATA Silver Anniversary.

Careers Education: Unique Instructional Programs. What are the pilot instructional programs in urban and rural settings showing?

AUGUST—Career Education: For More Teacher Education and Supervision. What can and should be done by the teacher educator and state supervisors to implement career education.

SEPTEMBER—Career Education: Articulation Among Locally, State, and National Programs. What methods are being used for articulating the program planning on micro, local, area, and state levels?

OCTOBER—Career Education: Upgrading Adult. How does the career education concept influence adult education programs?

NOVEMBER—NVATA Silver Anniversary Issue.

DECEMBER—Career Education: Accountability in Education. How do we measure our occupational programs? Are our occupational programs effective in preparing people for the world of work?

5. The Agriculture Education Magazine

ROUTING OUT 1973

Career Education Articulation Among Local, Area, and State Programs. What methods are being used for articulating the program planning on local, area, and state levels?

Career Education: Accountability in Education. How do we measure our occupational programs? Are our occupational programs effective in preparing people for the world of work?

COOPERATIVE TRAINING IN AGRI-MECHANICS

Estimating and coordinating a cooperative training program for agri-mechanics trainees of a post-secondary vocational technical training center presents many problems. The problems are magnified when the farm implement dealerships are located at points. farm implement dealerships are often located 70 miles apart in a state that extends 500 miles east to west and 300 miles north to south. However, being located at each facility, has the dealer needed competencies is by far the most important concern. The cooperative training program for Helena Vocational Technical Center began in 1970. During the summer of that year the agri-mechanics staff traveled 2500 miles and surveyed the owners of 55 farm implement dealerships. During each interview the purpose of the program was explained to each potential employee while his willingness to cooperate, work ethic, and salary were carefully considered. Following six weeks of extensive interviews, a group of farm implement dealerships were identified as potential training centers.

DECEMBER, 1972

The First Year Course

To assure success of the cooperative training program it is necessary to prepare a training which will provide each trainee with the competencies he will need while working in the dealership. During the first year each student is required to complete 1200 hours in technical training and 220 hours in related courses.

Technical courses included:
1. Diesel Engine Overhaul . . . 460 hrs.
4. Troubleshooting Diesel and Gas Engines . . . 72 hrs.
6. Troubleshooting Overhead . . . 72 hours of trade-supplied and 72 hours of welding instruction.
7. Every effort is made to provide ample opportunity for each student to actually overhaul a tractor engine. To provide this experience the students completely overhaul 50 or more Diesel or gasoline tractor engines during the first year. After each engine has been overhauled, the tractor is checked out by the service manager and returned to the owner.
8. The Cooperative Experience. During the second semester of the first year, students are given the names and addresses of the cooperating dealers in the state. The potential employer then applies for an interview position.

December, 1972

Powers & Powers Inc. install a bearing race in differential housing of a farm tractor. Tractor is literally repaired from radiator cap to discharge pipe for learning experiences.

The real pay off of the cooperative training program is observed during the second year of training. Greater enthusiasm in business on the part of the students is very much in evidence. Class participation increases, and the students take greater pride in their workmanship.

The curriculum for the second year evolves around the maintenance and repair of the systems which are a part of the modern tractor. Each student spends 5 1/2 hours per day, 5 days a week in the shop and classroom. Technical courses include:
1. Hydraulics . . . . . . . . . . . . 175 hrs.
2. Tractor Electric System . . . . . 125 hrs.
3. Tractor Repair and Service . . . 360 hrs.
4. Implement Units Repair and Service . . . 300 hrs.
5. Business Management-Implement. 72 hrs.

Related courses in basic electricity, business management and sales and service account for 120 hours of additional training.

In addition to the regular course work, Seminars are held to discuss working conditions, wages, work benefits, shop organization and management, flat rates, short cuts in overhaul, maintenance problems facing dealers and warranty work.

During the second year two students, working cooperatively, repair a tractor from the radiator cap to the discharge pipe. In addition each student is given some experience in assembling and repairing swathers, balers and various other harvesting implements.

Following graduation, many of the students return to the dealership in which they received their cooperative training as full-time employees. A good attitude and exceptional skill displayed during the cooperative training period is often rewarded by a higher beginning salary. Subsequently, salary rates seem to be more frequent for those who have spent three months in a cooperative training program.
PRODUCTION AGRICULTURE TRAINING

In Western Wisconsin

Western Wisconsin Technical Institute, comprehensive career education center for Western Wisconsin, is a Technical and Adult Education District No. 2, at La Crosse, serves an area covering seven counties in Western Wisconsin. District 2 encompasses approximately 5,000 square miles in the heart of Western Wisconsin's fertile and scenic region, and is an important dairy area with other sources of agricultural income from enterprises such as beef, hogs, tobacco, cranberries and hops. The agriculture picture is changing rapidly in District 2, as in other rural areas of the United States, Farms are becoming larger and more mechanical. More capital is required to "keep up" with the times, and more healthful graduates must be technically skilled and business oriented to make their operations profitable.

W. T. Welborn, Chairman, Agriculture Division Western Wisconsin Technical Institute, La Crosse

The Western Wisconsin Technical Institute Production Agriculture course is a vocational-type program for the farmers actually tilling the soil. Federal and state-agriculture students were instructed to be followed by the schools and qualified participants. To determine approximately how many ex-service men were interested in a training program of this type and whether or not it was practical to start the program, a meeting of county service officers were held. Information was obtained from radio, television, newspapers, and informational meetings were scheduled.

PROGRAM INITIATED

The decision was made to start the program after discussing it with county service officers, counties, and high school agriculture instructors. A definite need was apparent and the District 2 West Wisconsin Technical Institute recognized their obligation to offer the training to the farmers in the area by forming the Technical Agriculture Program.

The selection of the centers for training was determined by a committee of prospective applicants and the locations of their homes. Considering distances involved, four centers were selected to keep commuting distances to any local center under 30 miles for all students.

Students attend 12 hours of classroom instruction each week for 44 weeks. The week is divided into one six-hour class day and two three-hour evening classes, scheduled so the day class does not follow a right class and so two sessions are not held in any one week. Classes are held during the eight remaining weeks of the year. This is divided into a spring planting, fall harvest and Christmas vacation.

The three-year program is fully comprehensive and covers all aspects of farming. The Wisconsin Board of Vocational, Technical and Adult Education has set a standard recommended curriculum. It is adapted to fit the needs of the area and approved by the State Board.

INSTRUCTORS ARE SPECIALISTS

Three instructors were hired to train on a rotational basis, so that each group of students was instructed by different instructors. The courses are divided into various courses to be taught, Arthur Krisske is head of the Production Agriculture Department, instructor in Dairy Science. He was involved with the research at the Institute Mills, Wisconsin, Experimental Farm before accepting a position at Western Wisconsin Technical Institute. Each of these instructors has a high reputation for the training and success of their students. All instructors, in dairy and production, provide students with the highest level of training and occupational programs. Approximately 25% of the students enrolled are in agriculture transfer and occupational programs. The Agriculture Department at Colby Community College offers students an opportunity to participate in occupational skills and transfer programs in business, science, and production. The college offers an Associate of the Arts Degree in the transfer program. The Associate of Applied Science Degree is an associate degree that provides students completing the prerequisites with an occupational program.

Programs in Agriculture

Transfer programs have been developed in cooperation with the Colleges of Agriculture and Veterinary Medicine at Kansas State University and the Division of Agriculture and Biological Sciences at Fort Hays Kansas State College. The cooperation between the two colleges has developed a group of basic courses for transfer students which are accepted at full credit value.

Transfer programs currently offered at Colby Community College are designed to provide the student with a broad background in agricultural science, animal science, plant science, and pre-veterinary medicine. The occupational programs have been designed to provide students with a foundation essential for success in their selected vocation. Programs currently being offered include the animal hospital technology program, meat inspection technology, and agricultural production.

Production Agriculture

Many students who complete their secondary education want to enter an agricultural production career. Recognizing the need to increase their knowledge in agricultural science but find the colleges of agriculture and veterinary medicine offer short-term production programs. Production programs offered at Colby Community College are designed especially to meet the needs of the individual. The advisor and student work together to determine a course of study which includes the most appropriate courses to fulfill the student's goals.

The course of study in agriculture production is designed for the student with a two-year program to take all of the Ag Science courses offered at Colby Community College then enter immediate employment. It involves intensive preparation and training in agricultural science, animal science, agricultural business, and agricultural economics. A student may earn additional college credit through supervised on-the-job training by members of the ag staff during summer months.

Feedlot Management Technology

With the rapid expansion of the commercial feedlot industry in Western Kansas, a lack of trained personnel became an increasing problem for producers of feeders. The Kansas Livestock

Association became aware of the situation and scheduled meetings with community colleges to discuss the problem. At the same time, many youth were seeking employment at semi-skilled workers with an opportunity to advance to management positions. With these conditions in mind, the college developed a feedlot management program.

It is a two-year program which blends practical experiences in the feedlot with a formal academic curriculum including basic communications, mathematics, business, and agriculture courses, including supervision by members of the agriculture staff and personnel in cooperating commercial feedlot.

Meat Inspection Technology

The source of meat inspectors offers unique advantages to consumers protection programs. The program is designed to orient students to placing in federal inspection supervision for several months, then finish the training in a state inspected plant.

Job experience is provided during the summer in federal plants under the direct supervision of experienced inspectors. Work experience is supervised by a staff member employed in a local plant as a state meat inspector.

Animal Hospital Technology

The need for veterinary nurses and technical assistants to help with general hospital activities allows more time for

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Southwest Wisconsin Vocational-Technical School 5 Years

5. Production Agriculture — This program provides specialized, 36-week individual and team training to students who are actively engaged in agricultural production. Farmer-students receive practical and realistic nature enabling them to immediately relate the information, knowledge, and training in their day-to-day farming operations. The program is designed for all farm operators and those engaged in agricultural production. It is developed to promote individualization of training with a flexible curriculum. The program is conducted on a two-fold basis:

1. Classroom instruction is planned and presented to the enrollee in a classroom or field trip situation. Each course, at least ten classes scheduled weekly to receive instruction designed to meet the needs of the participants in solving the problems of agriculture today. The program provides group and individual systematic instruction over a period of 5 years.

The Southwest Wisconsin Vocational-Technical School is a component of the Wisconsin Adult Education program. The minimum amount of individual on-the-farm instruction for each enrollee is:

1st year 12 hours
2nd year 20 hours
3rd year 16 hours
4th year 12 hours
5th year 12 hours

7. Mobile Instruction — Special training is provided by mobile welding units, radio, television, and printed materials supplemented by electric and hydraulic mobile units with electric and hydraulic instruction.
A FOLLOW-UP OF FORMER STUDENTS IN A LANDSCAPE AND NURSERY TECHNICIAN PROGRAM

Donald E. Elson
Assistant Professor
College of Education
Virginia Polytechnic Institute and State University

One hundred and sixty-two former students who were scheduled to graduate in 1966, 1967, 1968, 1969, or 1970 were contacted by telephone to obtain preliminary information regarding their placement, educational, and military status. Based on this data the former students were classified into four groups: persistent graduates — those who graduated from the program and were employed in the landscape and nursery industry at the time of the study; persistent dropouts — those who withdrew from the program before completing all requirements and were employed in the industry; non-persistent graduates — graduates of the program who were not employed in the industry; and non-persistent dropouts — those who withdrew from the program and were not employed in the landscape and nursery industry.

Implications

The follow-up procedure applied in this study provided useful feedback from former students of the Landscape and Nursery Technician program. A large number of former students withdrew from the program and the industry. It appears that students might benefit from more adequate counseling and guidance, especially prior to the time they enroll in the program.

Three former students had completed associate degrees, two of them bachelor's degrees. The average salary of the students limited their study time by school to landscape and nursery work.

Fifty-eight percent of the former students were associated with the industry and nursery industry as employees of the students. Eighty-two percent of the former students were employed in jobs or studying in areas not related to the industry. The remaining 18 percent were unemployed.

Graduates employed in the landscape and nursery industry reported an average salary of $9,750 per year. As average salary of $9,500 was reported by those who withdrew from the program, but were employed in the industry. Former students not employed in the industry reported salaries of approximately $2,000 per year less than the above amounts. A young person employed by the industry would not be more satisfied with their work and more active in social and community activities than those employed not related to the industry.

(Continued on next page)

MUSKOGEE YOUNG FARMER’S TRACTOR SAFETY SCHOOL AND CONTEST

Wendell Fenton
Vocational Agriculture Teacher and Young Farmer Advisor
Muskogee, Oklahoma

The Muskogee chapter of Oklahoma Young Farmers Organization sponsored the annual tractor safety school and contest for all FFA and 4-H members in Muskogee county in December, 1971. The organization’s activities included educational programs, community services and promoting agriculture products. The purpose of the tractor school and contest was to inculcate safety in the minds of farm youth in order to eliminate the numerous farm accidents that occur each year. Farming is ranked as the third most hazardous occupation. In 1976, 2,400 fatalities occurred in farm accidents. The National Safety Council estimates that 15,000 injuries and approximately 1,000 deaths occur annually because of tractor accidents.

Increased mechanization, size and power of farm equipment has increased the dangers involved in farming and ranching.

The contest program began with a talk by Oklahoma Highway Patrol Trooper Lee Ivy concerning tractor safety on the highway.

Next a demonstration concerning tractor safety using model tractors with remote control was presented by Dr. K. H. Hidbrich best Young Farmer Advisor for The Oklahoma Farm Bureau. All students were given a written examination and were given the opportunity to drive tractors under the supervision of Young Farmer members.
CITRUS GROVE LABORATORY

Frank E. Eameschen
Instructor in Citrus Culture and Grove Management
Polk Vocational Technical Center
Kissimmee, Florida

The educational dictum, "Learn to do by doing," is not just a platitudinous teaching technique but rather an actual training tool in Citrus Grove laboratory. This is the learning environment the students experience in every phase of caring for the Center's twenty-acre citrus grove laboratory. They take part in every aspect of crop production except harvesting the crop, located in the center of Florida's "Imperial" Polk County, the very hub of citrus production in this state. The program is unique in that it provides students with a thorough understanding of all-up-to-the-minute equipment available, as well as the ability to use them properly. The program is designed to train students to become industry leaders in citrus production and management. 

Determination of When the Sweet Citrus Fruit Reaches Marketable Condition

The Center's Director, Frank E. Eameschen, instructs students in the determination of when the sweet citrus fruit has reached marketable condition. The procedure involves measuring the skin thickness of the fruit, which is determined by using a thickness gauge. The students are taught to use this equipment properly and accurately. They learn to measure the skin thickness of the fruit to ensure that it is at the optimal stage for harvesting. This process is crucial for ensuring that the fruit is of high quality and meets market standards.

Students are taught to "Learn to do by doing," providing them with hands-on experience that enhances their understanding of the citrus industry. The program prepares students for successful careers in the citrus field, equipping them with the knowledge and skills necessary to excel in their careers. Students are provided with access to the latest equipment and technology, allowing them to gain practical experience in real-world situations.

Andreas — from page 129

Andreas — from page 129
The impact of Dr. A. M. Field on agricultural education might well be compared to the ripples on a pond spreading over the entire surface smoothly until it is disturbed by a stone. man, a gentleman in the best sense of the word. As my adviser he was reassuring because he would trust me. It made my own decision after he had explained the alternatives of any given situation. The dedication of "That Inspiring Past," a history of the FFA in Minnesota reveals some of this man's silent strength. It is taken verbatim from the publication. To Professor A. E. Daniel, Albert Martin Field, this volume is affectionately dedicated. If any individual can be said to have brought the Future Farmers of America into being in Minnesota, that man is Dr. Field. His courage in the face of discouragement, his leadership in a time cowering out for leaders, his patience with those who desired patience as a weakness, his faith in the potential as well as the basic unit in our democracy, his supreme confidence in public education for public good and, above all, his faith in the future of farming make it inevitable that this first comprehensive history of the Future Farmers of America in Minnesota should be, must be dedicated to Dr. Field and the high principles he stands for.

Dr. A. M. Field was born in Wisconsin in 1879 and, like many of the early leaders in agricultural education, came into the field on the basis of interest rather than high school or college experience. After graduating from Whitewater State Teacher's College in Wisconsin, he taught in the rural schools of Mt. Horeb, Wisconsin. After a term as principal and superintendent of schools, he took a position as teacher of agriculture in Northfield, Minnesota. It was here that he earned the adulation of all pupils and benefited in his work with farmers of the area and his success in getting them to grow alfalfa as the major roughage for the dairy herd. This contributed in no small measure to Northfield's reputation as the heart of the corn, college and creamery land.

But for A. M. Field, this was only the beginning of an illustrious career. He subsequently completed his Ph.D. in rural education at Cornell under Dr. R. M. Stewart and returned to head the department of agricultural education at the University of Minnesota. It was here that he made his greatest and lasting contribution to agricultural education. An indication of his philosophy can be found in his publication "Whether Agricultural Education" to which he contributed an essay on "The Course of Study" in vocational agriculture. True to his role as a philosopher, he contended that a program of agricultural education should be rooted in a sound philosophy as a point of departure. The abductive vision of Vocationally oriented students attracted through a series of learning experiences that would take them from "where they are to where they probably will be, or ought to be." 

Dr. A. M. Field was a true leader in his belief that the philosophy of Agricultural Education must be a philosophy of change. Dr. Field set an example for current leaders of agricultural education by insisting that agricultural education must change "more rapidly than agricultural practices, otherwise it cannot lead." Agricultural educators, he insisted, must catch the problems of the future in its philosophy. He outlined Principal Principles for Teaching Agriculture:

A large part of Dr. Field's contribution to agricultural education might well be condensed into his suggested guiding principles for teaching agriculture on a vocational basis.

Principle No. 1: To teach agriculture the student should go on the farm with his classmates; the students rather than on the subject matter to be taught. Dr. Field envisioned it thusly. "The personal development of the student is placed above the accumulation of facts or the skillful performance of mechanical activities.

Dr. Field impressed his students with the idea that the seat of good farming is in the mind, that "the man makes the show," that to be successful in agriculture the students must think while they toil. Thus he shared prophecies of teachers of agriculture in his image (philosophically) and developed the important attributes of ideal planting.

Principle No. 2: Agricultural education is democratic in its service to the community. Given the resources, Dr. Field's philosophy would raise the level of principle engaged in agriculture to the highest social and economic level its abilities would permit.

The Integrated Course of Study

On indication of how Dr. Field believed agriculture to be is integrated into the whole. It is evident from his work that Dr. Field was a leader in the thinking of Vocationally oriented students. The integrated course of study advocated by Dr. Field is based on a series of learning experiences that would take students from "where they are to where they probably will be, or ought to be."
Making Overhead Transparencies In Color
From Magazine Illustrations

Agricultural mechanization competencies needed by selected Louisiana farmers

Richard G. Weber
Vocational Agriculture Teacher
South Lafourche High School
Louisiana

The survey was limited to a sample of farmers in Louisiana as determined by a selected group of 75 vocational agriculture teachers. The sample consisted of 55 parish (county) area of the state. Each teacher was asked to distribute questionnaires to four farmers in his teaching community. A total of 300 questionnaires were distributed, or a response rate of 74 percent. This study was further limited to farmers to receive 50 percent or more of their income from farming.

Findings

A distribution by farm types varied that 41 or 22.7 percent were crop farmers, 32 or 17.7 percent dairy farmers, and 28 or 15.5 percent, live stock farmers. The remaining 30 or 16.2 percent were diversified farmers because they had no special enterprises that contributed 50 percent or more to their annual gross income.

The average age of respondents was 44 years with a range of 19 through 60 years.

The average number of years of formal education completed was 11.5 and ranged from those to those to those to those to those to those to those to those to those to those.

The teacher of agriculture is in a position to give courses and guidance, cutover area personnel and provide instruction in most areas of science for practicing farmers.

A recent study at Louisiana State University, research was conducted to identify skills in agricultural mechanization that were needed for entry into a farming program by selected Louisiana farmers. The purpose of this study was to secure information which might be used as a guide in formulating adult education programs in the farm community. The study was conducted at the Louisiana vocational agricultural and to make recommendations for using its use. Responses to skills needed to be important in the farmer's operation. The instrument was designed to specifically relate to the purpose.

The survey was conducted in the summer of 1971.
GET INVOLVED — BY TEACHING ADULTS

Agricultural Student Clubs in Post-Secondary Programs

Maynard J. Isom
Assistant Professor and Specialist
Agricultural Education Beyond High School
University of Kentucky, Lexington

During the 1960's two-year, post-secondary educational programs in agriculture have spread rapidly across the country. Some agricultural educators now look to this two-year program for expansion of the "youth organization" philosophy which fostered the FFA as well as various collegiate agriculture groups. In recent literature, proponents and opponents alike have expressed themselves as to the need for, mockup of, and direction to go with an organization for post-secondary adult clubs. But amid arguments for and against having such clubs, and debate over how they should be structured, too little has been done to determine what presently exists.

The Study

In order to provide a frame of light into this situation, a national study was made by the author in 1971. A major focus was to determine current status of student clubs in the more than 300 two-year agricultural institutions reporting agricultural programs. State directors were contacted to provide a list of institutions and to indicate which programs had student clubs. A survey instrument was designed and related to the 100 institutions known to have agricultural clubs and also to a 50 percent random sample of the remaining 226 institutions. Agricultural Division Chairmen in 51 institutions located in 40 states and Puerto Rico provided data for the study.

Findings

A. Seventy percent of the respondents reported having agricultural student clubs—a much higher percentage than was previously thought. However, in the North Atlantic and Central regions were found to have a higher proportion of clubs than the Pacific and Southern regions, as shown in Table 1.

B. Several of the respondents reported very few or no clubs in their states. Some clubs did not meet the requirements of the clubs receiving financial support from the school. Costs of meetings, social activities and travel comprised the major financial outlays. Most clubs were involved in larger membership and number of activities. Trends indicated were for increased and diversified programs, movement to form state groups, development of students within local clubs and expanded scope of the clubs. Major problems reported were in securing membership, participation, and financing—and dealing with increased membership dues due to the high percentage of students working at part-time jobs.

Conclusion and Recommendations

What needs to be done next to the problem? Where do we go from here? Fortunately, the primary thrust of post-secondary agricultural student clubs is still in its infancy and mainly at the local level—but it may not be long before the case

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TABLE 1 — Regional Status of Institutions Offering Post-Secondary Agricultural Programs

<table>
<thead>
<tr>
<th>North</th>
<th>Central Atlantic</th>
<th>Pacific Southern U.S.</th>
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<tbody>
<tr>
<td>Coastal Region</td>
<td>North</td>
<td>South</td>
</tr>
<tr>
<td>65</td>
<td>6</td>
<td>36</td>
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| Ag-Related Student Organizations in Operations | 49 | 11 | 32 | 92 | 115 |

| Percentage with Organizations | 75.4 | 66.6 | 66.6 | 65.7 | 70.6 |

A. Several of the respondents indicated to me a need for "have not" institutions, only a limited number proved to be statistically significant. Those factors affecting establishment of clubs were:

- Percent of Students Age 17-20
- Name of Department: Agricultural
- Number of Agronomy Clubs
- Number of Previous FFA-4-H Members
- Department Chairmen's Attitude Toward Student Organizational Programs
- Number of Female Students
- Number of Minority Students
- Existence of School Policy
- Number of Full-Time Faculty
- Total Department Enrollment

- Most of the clubs were relatively young (under 10 years of age), department-wide groups involved in leadership, social development, and program-assistance activities. There was relatively little structuring. Eighty-eight percent had agricultural names; only seven percent had Greek-letter titles. The groups were primarily independent of outside affiliation. Nearly all the clubs had regular and social or recreational meetings. Almost all were local but in clubs in New York, Kansas and Minnesota had moved toward forming state-wide groups. A total of 5,297 members were reported in 121 clubs; with enrollment in agricultural programs totaling 11,603 students, membership was less than one-half of the potential. However, in the North Atlantic and Central regions were found to have a higher proportion of clubs than the Pacific and Southern regions, as shown in Table 1.

- The study showed that clubs have been accepted by the community and have the respect of the farmers to be helpful in teaching. The teachers must enjoy and have the ability to work with people on a close personal basis. This must cost the ability to keep the confidence and work closely with farmers.

- The program will work best in

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POST-SECONDARY AGRICULTURE EDUCATION
Marketing And Management At Mitchell, S. D.

Loren G. Kaden
Agricultural Department Head
Mitchell Area Vocational Technical School
Mitchell, South Dakota

A new infant in the Agricultural Education program in South Dakota was born at the Mitchell Area Vocational Technical School, Mitchell, South Dakota, when 17 post-high school students enrolled in the Agriculture Marketing and Management program in the fall of 1989. This was the first South Dakota program aimed at furthering the education of young people wishing to go back to farming or ranching or into Agribusiness. The program provides the field for those who are beyond the high school age and did not wish to attend an agricultural college in the state. One can now look back and see where many changes could have been made, but we still can look at some accomplishments made with the first classes.

The Agricultural Marketing and Management Club was started with a dual purpose of preparing young men returning to the farm or ranch as well as those who wish to go into agriculturally related businesses. As the program grows and develops, it is foreseen that there will be two distinctly different curriculums with some basic subjects for both.

The curriculum is set up to have six quarters of training in Animal Sciences, another six quarters in Plant and Soil Sciences, 7 quarter hours in Farm Management, and seventeen quarter hours in Agricultural Marketing and Management. One quarter hour is given in each one hour of class or laboratory activity per week for 12 weeks or a total of 108 hours. The Mitchell Area Vo. Tech. School operates on six hours of class or laboratory per day, five days per week, for 12 weeks or equal one quarter. A fall, winter, and spring quarter are scheduled with possibilities of some summer classes joining in to make up.

This schedule is perhaps quite different from most agriculture programs in other area schools. The long distances that some of the students must travel require most students to stay in Mitchell and return home every other weekend. They come from so many different areas that it is nearly impossible at the present time to allow them off as a group for spring or fall break, which creates some absenteeism during those periods.

Another unique situation in the agriculture program is the exchanging of students with other institutions including the areas of training in the school. This allows for more specialization andcertification of areas of study. This is the main reason the instructor and student are. Rather than using a shop area of its own, the Agriculture Department uses the special facilities of the Automotive and Diesel Mechanics, Carpentry, Welding and Electric Construction programs. This arrangement has worked quite satisfactorily, and more of this type of class arrangement is being worked into other programs in the school for next year.

Perhaps most critical that is continually looked upon for improvement is to make the course as practical as possible and give the students some real hands-on experiences that they can use on the farm or on the job.

In the laboratory, the students study the techniques of grain grading and evaluation. Here they are calculating dockage on a wheat sample.

ACCOUNTABILITY IN ADULT EDUCATION

M. D. Thornton
Agribusiness Education Teacher
Monticello, Alabama

Continuing adult education as a part of an organized and planned program of agribusiness education can become new and vital to the community. The total program of agribusiness, including natural and human resources and basic trades education, has established objectives and evaluated in some degree developing everyone desiring to... (Continued on page 143)
BOOK REVIEWS


The third edition of this book comes at a time when an increased need is being emphasized to understand our natural resources. The book contains a wealth of information on the mineral, water, plant, wildlife, and air resources of the United States. The text is well organized and clear, and the references are adequate. The book is highly recommended for use in natural resources education, and it will be a valuable resource for students and professionals in the field.

H.R. Buringham Retires

H.R. Buringham, head of the Agricultural Education Department in the School of Agriculture and Natural Resources at the University of Nebraska, is retiring in June 1968. Professor Buringham came to the University of Nebraska in 1945, and has served as head of the Agricultural Education Department since 1949. During his tenure, Professor Buringham has made significant contributions to the field of agricultural education, including the development of new curriculum materials and the promotion of agricultural education at the state and national levels. He has served as a consultant to numerous organizations and has published extensively on agricultural education topics. His retirement marks the end of a distinguished career in agricultural education, and he will be greatly missed by his colleagues and former students. We wish him well in his retirement.

NEAR VOCATIONAL AGRICULTURE TEACHER'S HANDBOOK

By Harvey S. Woods and Thomas R. Birtz, University of Missouri, Columbia, Mo. The Agricultural Education Material Center, 1971, 245 pp. $4.00.

This handbook is intended for use by teachers of vocational agriculture. It provides information on the history, philosophy, and purpose of vocational agriculture, as well as guidance on the development of lesson plans, objectives, and activities. The handbook is well-organized and comprehensive, and it will be a valuable resource for vocational agriculture teachers.

FARMER'S GUIDE TO THE PRINCIPLES OF SOILS AND PLANT NUTRITION

By Cyril C. Shepherd, University of Nebraska, Lincoln. Published by the Soil Conservation Service, U.S. Department of Agriculture, 1968, 156 pp. $2.00.

This guide is intended for farmers who want to improve their understanding of soil and plant nutrition. It provides information on the basic principles of soil and plant nutrition, as well as guidance on how to apply these principles to improve crop yields. The guide is well-organized and easy to use, and it will be a valuable resource for farmers.

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A Vocational Agriculture student gets finishing touches on one of the many wreaths produced by the Homestead Valley Chapter of Future Farmers of America. The objectives of the program are furthered by including the students with the mechanics of marketing and sale of the products, and also introduce them to the new area of ornamental-living products. All students participate in some phase of wreath making and are responsible for taking orders, making wreaths, and tree orders, and cut tress at the Christmas Tree Stand. (Photo supplied by Roger Gambino, Vo-Ag Instructor, Fall Village, Connecticut)

Stories in Pictures
by Richard Douglass

Agricultural Education will be housed in the 35,1 million Classroom Office Building under construction at the Univeristy of Minnesota’s St. Paul Campus. Examinining plans for the building are, from left, R. Paul Mavilia, Head of the University Depart- ment of Agricultural Education; State Rep. Wendell Fisher; Paul Dye, State Supervisor of Agricultural Education at the University; and Robert H. Kane, Minnesota Department of Education, and Market Weather, President, Minnesota Vocational Agriculture Instructors’ Association. The building also will house the departments of agriculture and the applied economics, social sciences and applied statistics. It is scheduled to be ready for use in the fall of 1972. (Photo supplied by Paul M. Day)

Teaching Occupational “Awareness”