

A Repeat Reminder:

The South Carolina Association of Young Farmers will host the fifth National Young Farmer Institute November 28-December 1, 1971 in Greenville, S.C. at the Jack Tar Poinsett Hotel. The Institute had its beginning in 1967 when a small group of Young Farmers from several states conceived the idea of a national meeting for the purpose of exchanging ideas and information. From that small beginning, the Institute has grown each year and the fourth annual meeting in 1970 at Wichita, Kansas was attended by approximately 450 delegates representing about 22 states. The previous Institutes were held in Ohio, Texas, and Pennsylvania. Approximately 500-600 delegates from at least 30 states are expected for the meeting in Greenville, S.C. this year. Several states have indicated that they will be well represented with large delegations.

(Hugh McClimon)



This quote from the Rev. Giles C. Ekola, Senior Pastor, Calvary Lutheran Church, Alexandria, Minnesota: "A common concern between Vocational Agriculture and the farm organizations is for the wise use of resources. From the exposures I have had to Vo. Ag., I have come to appreciate the stewardship of the earth philosophy that it communicates. The policies of the farm organizations also reveal a continuous concern for constructive soil and water management.

"As a consumer dependent upon American agriculture, I hope that more and more Vo. Ag. groups and farm organizations will affirm their common ground. As a pastor with relationships with consumers, Vo. Ag. students, farmers, and members of farm organizations, I believe it is wholesome for these common concerns to be realized more fully."



Bankers with an understanding of today's agriculture appear to be in short supply in many rural areas. Some banks, particularly in the Midwest, early recognized a need for highly skilled people with agricultural backgrounds. However, there are still many opportunities in areas where changes in agriculture have been so rapid that local banks have not been able to keep pace with a demand for people trained to deal with an individual farmer's pressing need for capital to run his business.

Twenty years ago a farmer produced most of the feed for his livestock, marketed products locally, used inexpensive horse-drawn equipment, and operated on relatively small acreages. Modern farming has changed all this and in many occupations in agricultural business in the areas of banking, credit, insurance, land appraisal, and marketing, an employee must have a knowledge of farming operations, skills, and farming know-how.

Commercial banking firms are employing agricultural college graduates who have combined agricultural education with studies in economics and business administration.

There is little opportunity in agricultural college classes to learn skills and get practical experience in farming; therefore, the agricultural work experience you obtain while in high school is important. It will help you understand better some of the agricultural course work in college.

(New Holland News)

GENES FOR TOMORROW

Plant explorers are running a critical race against time. Their goal: collect as many of the world's primitive and wild plants as possible in the next 10 years. By then, scientists fear, much important uncollected germ plasm will be lost.

Everywhere the march of progress, especially in developing countries, is decimating plant communities. Bulldozers uproot valuable species in the building of towns, roads, factories, and airports. Dams drown ancient habitats.

Goats graze many plants out of existence. And primitive varieties such as melons, once grown in rich diversity for local peasant marketplaces in Asia are no more, their place taken by a few super varieties adapted to broad regions.

Civilization depends upon crop plants that are grown far from their centers of origin. Paradoxically, of all the major crop plants making up the bounty of U.S. agriculture, not one originated within our borders. Our complex agricultural system rests entirely on introduced plants that had been nurtured and dispersed over the centuries by farmers and plant breeders.

Valuable germ plasm has also been collected by USDA plant explorers who since 1898 have made over 150 global collecting expeditions and introduced some 350,000 collections. Many collections were put to good use but were eventually discarded so that today we retain about one-tenth of the early introductions in their original form.

(Agricultural Research, USDA)



The National Safety Council is going all out to reduce accidental drownings. Materials and films are available, not only from the Council but also from Red Cross, Coast Guard, extension service, manufacturers of water recreation equipment and boats, etc. Also, there are proven programs you could initiate such as NSC's "Operation Waterproof 4th Grade."

NSC has a new water safety film titled *FIND A FLOAT*. Many people drown needlessly each year often in full view of friends on the shore or in boats who stand by helplessly. The people have within reach means to save drowning victims — only they don't know it. *FIND A FLOAT* shows viewers many ordinary items—poles, branches, spare tires, oars, picnic paraphernalia, etc. — which can be used to keep a person afloat until help can reach him. If viewers could remember to use these or other improvised flotation devices, many lives could be saved. The film is color, 16 mm, 11½ minutes. Price: \$75, with 20% discount to NSC members, 10% to governmental agencies. Stock No. is 079.01.

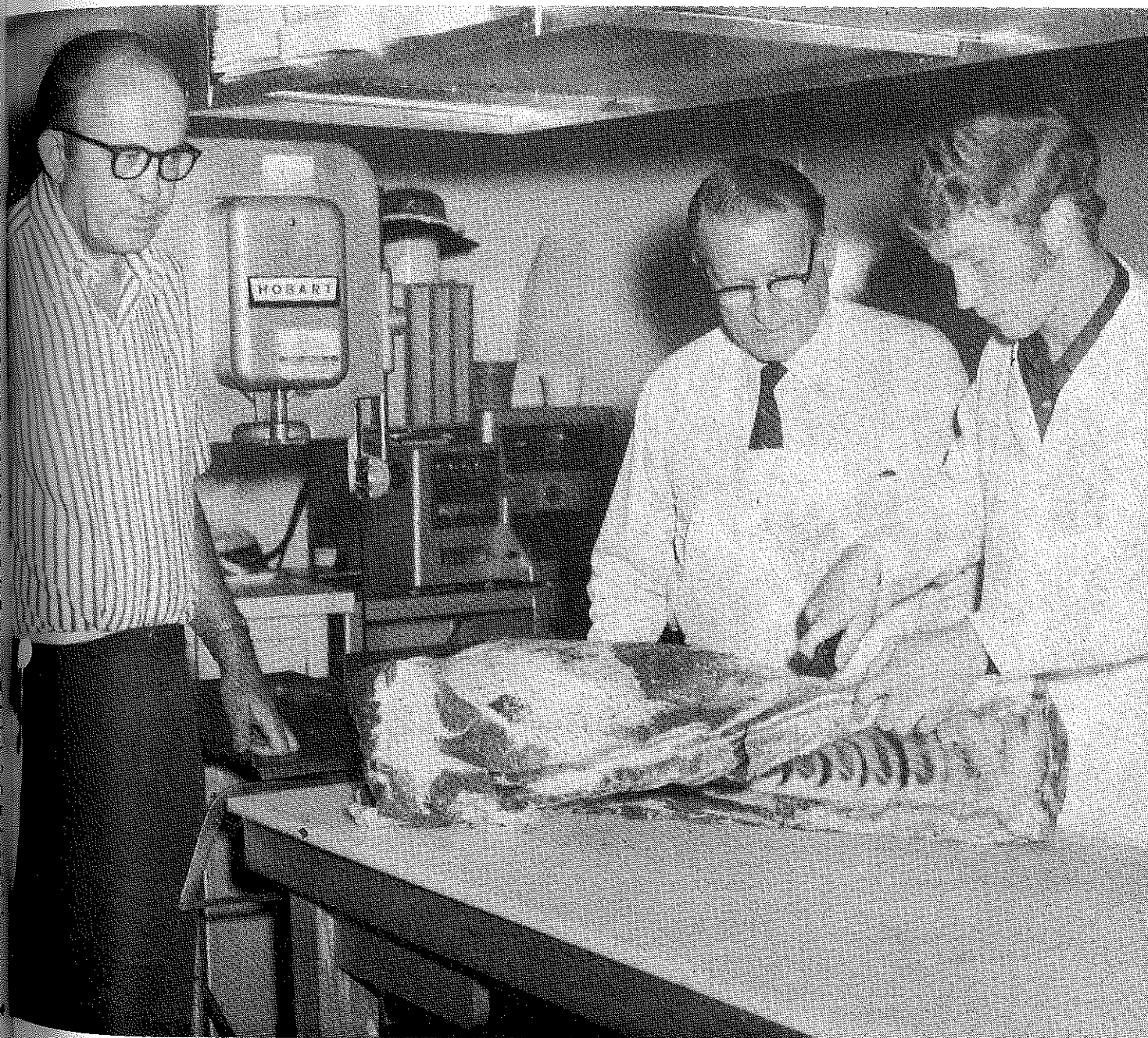


Volume 44

Agricultural Education

November, 1971

Number 5



Featuring —
SUPPORT BY INDUSTRY
AND ORGANIZATIONS

The
**Agricultural
Education**
Magazine



Vol. 44 November, 1971 No. 5



From the Editor's Desk

Painting With A Broad Brush

TABLE OF CONTENTS

From the Editor's Desk	Edgar Persons	111
School Industry Cooperation in Mississippi	T. V. Majure and Bennie Robbins	112
FFA Marketing Schools Supplement Classroom Instruction	Lyle Lamphere	113
Dr. William T. Spanton, Mr. FFA	E. J. Johnson	114
FFA Foundation		116
Occupational Experiences for Teachers	Gary F. Beasley	116
Professional Improvement—A Mutual Concern ..	Richard L. Johansen	118
Vocational Agriculture Career Fair	Leonard Larshus	119
Teachers Work in Industry To Keep Credentials Valid	Jim Beardsley	120
Blue Power	Forrest Bear	121
Changing Curriculum?	Rodney W. Tulloch	122
Cornstalks—A Poem	Carsie Hammonds	123
Cooperation with Industry For Vocational Education in Outdoor Recreation	Bert Roberts	124
The Product and the Consumer	Allan D. Goecker	126
Industry Honors Contribution to Food Production ..	Rich G. Hansen	128
Florida Agribusiness Leadership Gets Involved	W. R. Jeffries	129
Integrating Curriculum with Industry Needs	Bernie Staller	130
Vocational Education in a State Correctional Institution	Larry Myott and Gerald Fuller	132
Planning Summer Programs	W. T. Johnson	133
New to Me	Editors	134
Themes for Future Issues	Editors	135
Stories in Pictures	Robert Walker	136

THE AGRICULTURAL EDUCATION MAGAZINE is the monthly professional journal of agricultural education. The publication is managed by an Editing-Managing Board and is printed at The Lawhead Press, Inc., 900 East State Street, Athens, Ohio 45701.

SUBSCRIPTION PRICE: \$3 per year. Foreign subscriptions \$4.00. Student subscriptions in groups one address, \$1 for October-May. Single copies 50 cents. In submitting subscriptions designate new or renewal and address including zip code. Send all subscriptions to Doyle Beyl, Business Manager, AGRICULTURAL EDUCATION MAGAZINE, Box 5115, Madison, Wisconsin 53705.

Second-class postage paid at Athens, Ohio.

Send articles and pictures to the Editor or to the appropriate Special Editor.

COVER PHOTO

Clifford Sexton, right, proceeds with cutting up a quarter of beef under the watchful eye of store owner, Ellis Crawford, center, and Glen McKeever, Vocational Agriculture instructor. Clifford is a 1971 graduate of Greenbrier East High School, Lewisburg, West Virginia, where he completed two years Agricultural Production and two years of an Agricultural Sales and Service course. He worked at Crawford's Foodland Store during his Senior year and is now employed in the meats department. (Photo by Guy E. Cain, Program Specialist.)

MANAGING EDITORS

MILO PETERSON and EDGAR PERSONS, Co-Editors, University of Minnesota, St. Paul, Minnesota 55101

DOYLE BEYL, Business Manager, Board of Vocational, Technical and Adult Education, Madison, Wisconsin 53702

J. ROBERT WARBROD, Consulting Editor, The Ohio State University, Columbus, Ohio 43210

SPECIAL EDITORS

NORTH ATLANTIC REGION

ROBERT C. JONES, University of Massachusetts, Amherst, 01002

SAMUEL M. CURTIS, The Pennsylvania State University, University Park, 16802

CENTRAL REGION

MARTIN B. McMILLION, University of Minnesota, St. Paul, 55101

BOB R. STEWART, University of Missouri, Columbia, 65202

SOUTHERN REGION

JAMES C. ATHERTON, Louisiana State University, Baton Rouge, 70804

WILLIE T. ELLIS, North Carolina A & T State University, Greensboro, 27411

EARL S. WEBB, Texas A & M University, College Station, 77843

PACIFIC REGION

E. M. JUERGENSEN, University of California, Davis, 95616

DWIGHT L. KINDSCHY, University of Idaho, Moscow, 83843

FLOYD G. McCORMICK, The University of Arizona, Tucson, 85721

BOOK REVIEWS

FRANK R. STOVER, State Department of Education, Columbia, South Carolina 29021

PICTURES

ROBERT W. WALKER, University of Illinois, Urbana, 61801

NVATA

JAMES WALL, Box 4498, Lincoln, Nebraska 68504

RESEARCH

J. DAVID McCRACKEN, The Ohio State University, Columbus, 43210

INTERNATIONAL EDUCATION

RAY J. AGAN, Kansas State University, Manhattan, 66502

HISTORICAL

C. O. LOREEN, Washington State University, Pullman, 99163

EDITING-MANAGING BOARD

HOWARD H. CHRISTENSEN, University of Nevada, Reno, Chairman; GEORGE W. WIEGERS JR., University of Tennessee, Knoxville, Vice-Chairman; J. ROBERT WARBROD, The Ohio State University, Columbus, Secretary; MARTIN MITCHELL, New Hampshire Department of Education, Concord; DOYLE BEYL, Wisconsin Board of Vocational, Technical and Adult Education, Madison; CLIFFORD NELSON, University of Maryland, College Park; NEVILLE HUNSICKER, U.S. Office of Education, Washington, D.C.; GLEN D. McDOWELL, Pikeville, Kentucky; SAM STENZEL, Colby, Kansas; ODELL MILLER, Raymond, Ohio; JAMES WALL, Lincoln, Nebraska; MILO PETERSON and EDGAR PERSONS, University of Minnesota, St. Paul.



The title is derived from an old saying, but appropriate for the theme for this issue of Agricultural Education. Probably in no other endeavor could you name as many useful and varied ways in which two segments of our society — business and industry in the private sector and education in the public sector — have found to cooperate.

To some, cooperation is as simple as providing needed financial support for worthy activities. For others, cooperation is getting involved in the planning, organizing, and conducting of vocational experience. Each is important in its own way. Each is necessary if the consumers of the educational product are to be supplied with men and women both young and old who possess the skills, abilities and attitudes that make them productive and satisfied members of the working-managing force.

The astute reader has probably discerned from the table of contents, the conspicuous absence of the largest agri-business industry — farming — as the authors share with us their experiences in industry and organization cooperation. Perhaps it is a stereotyped dichotomy which we ourselves perpetuate as we conveniently categorize our potential product consumers into farming (or non-business) and non-farming groups. We need to look further into the possibility of the production agriculture industry as a cooperating agency for training students for employment for off-farm as well as on-farm careers. In both professional and technical pursuits one of the secrets of success is the ability to understand your client — his habits, his problems, his decision processes and his technology.

Certainly that idea is not new. "If you wish to know a man well, walk for one day in his moccasins." Our Indian brothers knew full well the importance of understanding your fellowman. We have but borrowed an age old idea and have given it modern meaning. Can we broaden our thinking to include the farm or ranch as a suitable training station for the young to learn the things necessary to succeed in business?

The ideas expressed in upgrading teacher competency in the off-farm business sector are exciting. Teachers who have the initiative to go to industries for improvement of their personal knowledges and skills are to be

congratulated. Perhaps some may see the importance of like exposure to the production agriculture business. The new approach to the development of careers demands that almost all teachers have some knowledge of the industries in which their youthful charges will seek livelihood. From kindergarten through adult life, the pattern of successful career development calls for teaching staff well versed in knowledge of the world of work. It is not too early to recruit other teachers to join you in your farm and industry experience. Your invitation need not be limited to others with a vocational orientation. If you think vocational teachers have much to gain from an association with farms and businesses, how much more there must be to gain for the teachers of math, science, English and grade school where formal preparation for their job was most likely devoid of any association with the world of work.

Have you ever stopped to wonder if industries and organizations are getting a fair deal when they cooperate with education? What things do we ask for, and what does education give in return? Even in this issue of the magazine, where but a small sample of cooperative efforts are reported you will note we ask for money, materials, time, and the use of businesses as laboratories and as training stations and for the services and advice of prominent men of industry. In return we offer young men and women better prepared to enter the work force. Perhaps that is enough. But we could do more. For example, in Minnesota the number of small businesses is about equal to the number of commercial farms in economic classes I-IV. Yet we have almost no courses for off-farm business management, nor in agriculture product retailing nor in any other off-farm business or industry-oriented subject.

I do not suggest that it is our job to assume the responsibility for conducting educational programs in special areas of business in which we lack expertise. But it is our job, if we have concern for the welfare of those who cooperate with us, to assist in the planning, organization and implementation of in-service education programs to meet their needs. The long experience of vocational agriculture in dealing with the needs of people should be a valuable asset in helping others to even the benefit-cost score in our industry — education cooperation.

To cover the subject of cooperation requires bold strokes with a broad brush. Perhaps no other cooperative effort is as important as walking a day in the other man's moccasins, even if the walk is only in contemplative thought.

School-Industry Cooperation in Mississippi

*T. V. Majure, Assistant Director
Secondary Vocational Education
State Department of Education
Jackson, Mississippi*



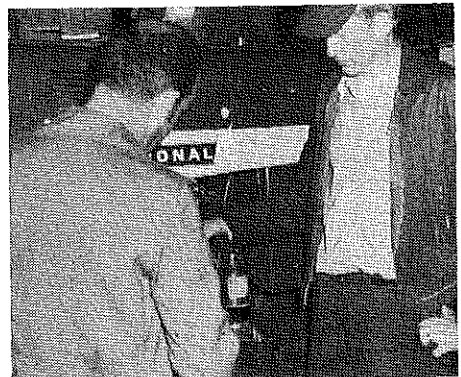
*Bennie Robbins, Assistant Supervisor
Vocational Agriculture
State Department of Education
Jackson, Mississippi*

Vocational education leaders in Mississippi realize that there has been rapid advancement in achieving balance between agriculture and industry. This balance has created wider opportunities for vocational agriculture in the public schools. The leaders of the vocational agriculture program in Mississippi hold the view that agriculture and industry have not developed as separate entities. Since this is true, one of the most pressing needs facing vocational agriculture is to upgrade the marketable skills of those enrolled in vocational agricultural occupations.

The state department leaders in vocational and technical education in agriculture in cooperation with the agricultural teacher education staff at Mississippi State University initiated what is believed to be an innovative approach to relating classroom instruction and work experience in off-farm agricultural occupations. The ultimate goal is to develop vocational agriculture teachers with sufficient competencies to plan, instruct, coordinate and evaluate programs for preparing individuals for work in off-farm agricultural occupations. In order to accomplish this major goal, the teacher education department set out to develop a professional in-service training program which would offer opportunities for ten selected teachers of vocational agriculture to participate in activities designed to accomplish the following specific objectives:

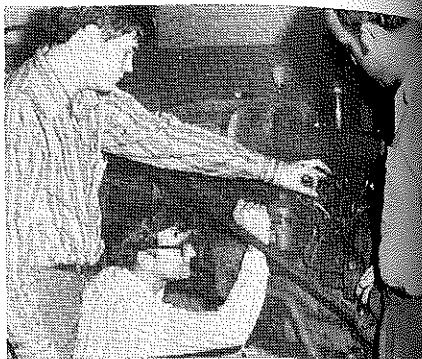
1. To develop the ability to plan for and utilize non-farm agricultural industries personnel in planning, implementing, and teaching off-farm agricultural occupations.
2. To increase competencies in determining the local outlook and skills necessary for placing students in off-farm agricultural occupations;
3. To develop understanding and competencies required in the organization and operation of off-farm agricultural industries;

4. To develop the competency to plan, implement, instruct, coordinate and evaluate off-farm agricultural occupations programs for disadvantaged students and/or students from low income families;
5. To develop the competency to coordinate student work experiences in agricultural industries and businesses with school instruction;
6. To develop competencies in evaluation and reporting programs in off-farm agricultural occupations.



Emmett Williams, left, vo-ag teacher at Brandon High School in the Brandon Implement Company, gaining firsthand knowledge as to what is involved in the operation of the equipment company. Here he was able to determine what he could teach at the school and what should be learned firsthand in the equipment company shop and other departments.

The first step was to have the teachers gain firsthand experiences by working in agricultural businesses and industries in their respective areas. These businesses and industries in effect employed teachers on an interim basis for a period of three weeks or more. The types of businesses and industries where the teachers interned were poultry hatcheries; agricultural equipment sales and services; meat processing and marketing; ornamental horticulture;

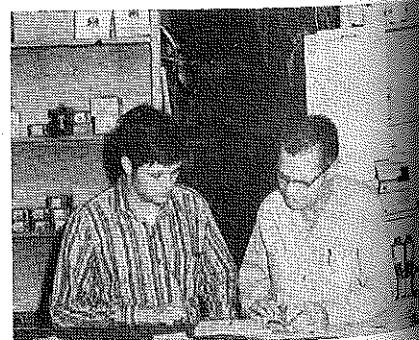


Emmett Williams in his classroom and shop at the school, teaching students activities that he learned in the actual on-the-job work he did at the implement company.

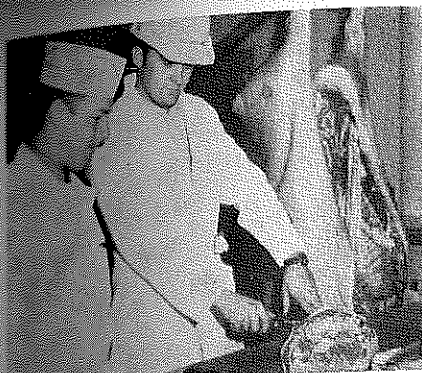
agricultural supplies, sales, and services and, to a limited extent, a highly specialized commercial farm, and agricultural experiment station service workers.

While the teachers were working in the off-farm agricultural businesses and industries, they kept a log of activities engaged in and the competencies developed. Firsthand work experiences became the primary factor in building a course of instruction for the vocational agriculture classes in the schools.

In order to relate the classroom instruction to the off-farm agricultural experience programs, the teachers were encouraged to identify specific job titles available in the agricultural businesses and industries in the area. This helped

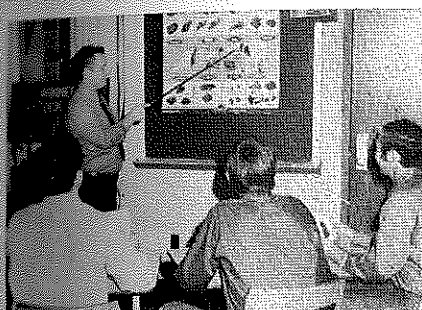


After instruction in the classroom by vo-ag teacher Williams, the student gets on-the-job instruction in the parts department of the implement company.



Ira Duke, left, vo-ag teacher at Raymond High School, in the meat processing plant with Dr. Robert Jones, owner and operator of the Hinds Meat Processing and Locker Plant. Duke receives on the job experience in meat processing technology.

students to arrange their occupational work experience on a part-time or full-time summer basis as, for example, a mechanic's helper in an agricultural equipment and sales business. To make the school instructional program more



Ira Duke in the classroom teaching students activities that he learned in the actual on-the-job work he did at the meat processing plant. Duke's work in the plant enabled him to know what could be taught in the classroom.

meaningful to the student's occupational work experience, every activity to be engaged in as part of the duties at the business is analyzed into learning units. The teacher, with expertise from industry, decides what activities can best be taught in the institutional program, at the school and which activities need to be emphasized when the student is working in the industry or business.



After instruction in the classroom by vo-ag teacher Dukes, the students get on-the-job instruction in the meat processing plant.

F.F.A. Marketing Schools Supplement Classroom Instruction

*Lyle Lamphere
Director of Public Relations
Central Livestock Association
South St. Paul, Minnesota*

"Learning To Do By Doing" has been a major guideline in the conduct of the 34 annual livestock marketing schools that have been held for vocational agriculture students at the South St. Paul stockyards.

But the schools have had a much broader and deeper application. They have featured and brought vividly into focus the "whys" and the "wherefores" of meat animal production and how the demands of the consumer are reflected in the prices of livestock on-the-hoof.

Students have learned through actual participation how supply and demand are brought together, under competitive conditions. At the Market students get an insight into the far-reaching importance and impact of how this all takes place. The objectives and the purposes of livestock production and marketing have played a major role in molding the format for the conduct of these schools.

These short courses in livestock marketing have been a joint venture with the Minnesota and Wisconsin Departments of Vocational Agriculture and the market interests, stockyards personnel, packers and related industries cooperating in their staging. The vast South St. Paul market has been used as a giant field-study laboratory for these schools.

All phases of livestock marketing are included. In recent years consigning of livestock for sale has not been an absolute requirement for participation, but those who do consign livestock, ideally, plan their production months in advance of the school so that the livestock might possess, in the opinion of the students, optimum finish and weight at the time of marketing. Then there is the practical training involved in arranging for a trucker, preparing the livestock for shipment, proper branding for identification, consigning to the selling agency selected through research, checking on trucking rates, transit insurance coverage, and the timing of loading and delivery. All of these marketing decisions must be made prior to the dates of the school.

The program of the school has been designed to give the youthful participants a short course in the operation, functions and the role of a great terminal competitive livestock market such as South St. Paul. Handling an average of around 5 million head of livestock per year and turning into cash for producers and feeders over 1 million dollars worth of livestock daily, the South St. Paul market is traditionally the second largest market in the world, and by far the largest livestock merchandising mart in the Northwest and therefore its principal price-determining center.

The students and their instructors visit the pens and alleys of the livestock agencies to observe first-hand how their livestock is unloaded, received, rested, fed, watered and sorted to appear at its best when offered for sale. Their selling agency salesmen have access to more than 200 different purchasers of livestock representing local, state, national and international demands on the market. They see their livestock after it is sold on its merits, weighted on State-inspected scales by bonded State weighmasters, as ownership passes from consignor to purchaser. They learn the mechanism and the many checking procedures used to maintain identity of livestock in the yards and the transfer of the scale tickets used in weighing the livestock. These tickets contain information of owner, trucker, weight, price and buyer. This information goes to the office of the selling agency so that the account sales and check representing bonded returns, might be ready when called for by students toward the close of the day's program.

Factors that determine livestock prices and the part that supply and demand play in determining these prices are discussed by expert agency salesmen, who have but one objective, and that is to get the greatest amount of weight and the highest possible prices for the livestock of the patrons they represent and serve.

The various market classes and grades of all species of slaughter and stocker and feeder livestock are demon-

strated, displayed, and discussed by marketing and packing plant experts. Individual animals are selected to represent grade and evaluation differences.

Students match their skills with the experts in evaluation and judging contests. A variety of all species of livestock is available for these exercises. Suitable awards are presented to winners.

Schools have included tours of the entire stockyard area and packing plants. Carcasses and cuts from livestock of the various grades have been demonstrated and discussed.

Appearing on the "teaching staff" of these schools in addition to livestock and packing company representatives have been specialists of the University of Minnesota, United States Department of Agriculture, Vocational Agriculture Departments, Future Farmers, American Meat Institute, National Livestock & Meat Board, and related organizations and institutions.

Entertainment in the form of music, luncheons, and special tickets to University of Minnesota football games have provided recreational balance to the course.

The first Northwest Livestock Marketing School held in 1938, attracted around 500 students and their instructors. Attendance now totals between 1,200 and 1,500 annually, as the event has been stretched to three days to accommodate local teaching situations and to allow for more personalized attention. Girls enrolled in the vocational agriculture participated for the first time in the 33rd annual school held in 1970.

In 1958 an annual Quality Lamb Marketing School, and in 1960, a Meat Type Hog Marketing School and Swine Evaluation Clinic, were launched for vocational agriculture students enrolled in these projects. These schools, specializing in sheep and hogs, respectively, are widely acclaimed by those who have participated, but nothing seems to quite match the popularity of the Northwest Livestock Marketing School, which has been a colorful classroom in general livestock marketing for 34 years, and a unique addition to the curriculum of high school vocational agriculture.

Dr. William T. Spanton, Mr. FFA

E. J. Johnson
Emeritus Program Specialist, USOE

William T. Spanton was born October 25, 1891, on a Bluegrass farm in Kentucky. At the age of 6 he moved with his parents to Ohio. In their new home the Spanton family lived in a two-room log house, chinked with clay mud, until W.T., who is better known as Bill, started to college in 1911. Bill's mother was a country school teacher, and it was from her that he received his elementary instruction. Bill worked his way through Ohio State University, where he received an A.B. in 1915 and a B.S. in Education and Agriculture in 1916. While State Supervisor of Agricultural Education in Rhode Island, he earned an M.A. degree from Brown University in 1924. His Ph.D. came from American University in 1932 with a major in Education and a minor in Philosophy.

His first teaching experience included agriculture, mathematics and science in Ohio high schools from 1916 to 1919. He served as Superintendent of schools in Litchfield, Ohio, during 1917-1918, and Head of the Agricultural Department, East Technical High School of Cleveland in 1918-1919. In 1919 and 1920 he was the first Vocational State Supervisor of Agriculture and Teacher Trainer in Rhode Island. He moved to Missouri in 1920 where he served as State Supervisor of Agricultural Education and State High School Inspector through 1924. In 1925 the Spantons moved to Washington, D.C., since Bill had been selected to serve as Federal Agent for Agricultural Education in the eleven Western States of the Pacific Region.

The first National Congress for students of Vocational Agriculture to include judging contests was held in 1926 at Kansas City in connection with the American Royal Livestock Show and 22 states entered teams. In 1927 these events were repeated on a larger scale and Dr. Spanton was active in Congressional sessions both years.

Many states had associations under a variety of names for students of vocational agriculture. Virginia, New Jersey, and Wyoming used the words "Future Farmers". At a meeting in-

volving numerous States at Denver in 1928, Dr. Spanton said, "I cannot too heartily endorse the student organization idea." Dr. C. H. Lane, Chief of the Agricultural Education Service, in 1927, assigned Dr. Spanton to compile a temporary constitution for the Future Farmers of America organization to obtain a charter under the corporate laws of Virginia. The constitution was adopted at the first National FFA Convention meeting in Kansas City, Missouri, in 1928. Spanton made effective use of co-workers on this challenging assignment.

Upon the retirement of J. A. Linker in 1941, Spanton became Chief (later termed Director) of the Agricultural Education Service and National FFA Advisor. Retirement at age of 70 was effective in 1961, after over 46 years devoted to Agricultural Education, 32 of which were on the National level. He was a pioneer among those who blazed the vocational trail and laid the foundation for us to follow. Of the small group of agricultural education leaders who organized the FFA in 1928, he was the only member who was still active in FFA when he retired.

In the October-November 1961 issue of The National Future Farmer Magazine a statement made by Raymond C. Firestone, said in part, "All honor to a dedicated man. It isn't every day we are privileged to pay tribute to an esteemed friend and colleague, but it is our pleasure now to pay just such a tribute to none other than Dr. W. T. Spanton — 'Mr. FFA himself,' or as his host of friends know him, just plain 'Bill.' With the help of Dr. Spanton's dedicated and inspiring leadership, the FFA today is a flourishing organization comprising a forward-looking membership. He was, and is retiring is, singularly devoted to the welfare and achievements of that membership, so representative of America and its finest heritage and traditions."

Some positions, honors and achievements pertaining to Dr. Spanton are:

Member of:
National Council at Large of the Boy Scouts of America for 11 years

Farm Committee of the National Safety Council
Board of Directors of the Farm Film Foundation
Editorial Board of Agricultural Education Magazine
Editorial Board of The Farmers Digest
Phi Delta Kappa
Alpha Zeta (Honorary at Large)
Alpha Tau Alpha
National Grange (Seventh Degree)
Masons (Knight Templar)

Awards:

Silver Buffalo Award by Boy Scouts of America (BSA)
Life Membership in the American Vocational Association
Honorary American Farmer Degree in FFA 1931
Honorary Governor of American Royal Livestock and Horse Show 1953
Distinguished Service Award from Agricultural Editors Association 1959
Who's Who in America
Citation from American Country Life Association 1961
National Acclaim for Leadership and Direction in setting up and conducting the National Defense Training Program for out-of-school rural youth during World War II
Distinguished Service Award, Ohio State University Centennial Citation 1970
Philadelphia Agricultural Award by the Philadelphia Society for Promoting Agriculture 1962 (this society was established by Benjamin Franklin nearly 200 years ago).

Some of the outstanding achievements that occurred during Dr. Spanton's career:

FFA was chartered by Congress (under P.L. 740), 1950
National FFA Supply Service, 1948
The National Future Farmer Magazine, 1952
First National FFA Band, 1947
First National FFA Chorus
Annual Good-Will Tour Program of National FFA Officers
The National FFA Foundation, Inc., 1944
Established the position of "Director of Public Relations" financed by the FFA, 1944
Printed and distributed 500,000 copies of a pictorial brochure, "FFA in Action", 1945
Judging contests using the Danish System of Awards and placements

giving consideration to production records, performance pedigrees and grading of classes were initiated in 1947.

The first annual FFA exchange program with the Young Farmers Club of Great Britain, 1949

FFA Code of Ethics, 1949

FFA Commemorative Stamp issued by Post Office Department, 1953

The National FFA Organization was incorporated under the Virginia State laws, 1928

The National FFA Public Speaking Contest was started in 1930

National Judging Contests for students of Vocational Agriculture, 1926

The Star Farmer Awards, 1929

National Chapter Awards, 1930

State Association Awards, 1930

New Farmers of America in 1935 merged with the FFA in 1965

Establishment of the National FFA Advisory Council, 1939

A 3-day pilgrimage of 1600 FFA Officers and members to Washington, D.C.; Mt. Vernon, home of George Washington; and Monticello, home of Thomas Jefferson where a room was dedicated to the ideals of the FFA, 1933.

The official blue corduroy jacket adopted by the FFA, 1933

Dr. Spanton believes that some factors have developed recently what are disturbing to the program in Vocational Agriculture:

1. A reduction in daily class time due to academic pressures.
2. Mandatory college preparatory curriculum often replete with foreign languages.
3. A tendency of many colleges to revert to time-worn and weired entrance requirements — a major cause of high school "drop outs."
4. A tendency for agricultural colleges to lessen the number of hours in agriculture required for graduation.
5. The "pedagogical trust" requiring more and more courses and time to be given to general pedagogical subjects for certification to teach to the neglect of needed courses in agriculture and agricultural mechanics.
6. School counselors lacking personal experiences and training in vocational subjects.
7. Prevalence of a sycophantic obsession for change that often tempts one to give away a birthright in Vocational Agriculture in exchange for a glamorized program of "related occupations".

8. A tendency to lessen or lower the requirements for the degrees and awards in the FFA.

The Reeves Committee that was appointed in 1936 by the President of the U.S. to study vocational education was seemingly a selected group not in favor of vocational training. The report to the President in February 1938 was to eliminate Federal vocational education aid by the ultimate consolidation of Federal aid for Vocational Education with general Federal aid for elementary and secondary education. This unfavorable report was fought diligently and successfully through the able leadership of Dr. L. H. Dennis, Executive Secretary of the AVA. Well planned and essential assistance was given by Dr. Spanton.

Following the retirement in 1946 of Dr. J. C. Wright, Assistant Commissioner for Vocational Education in the U.S. Office of Education, a concerted and brazen effort was made to reorganize the administrative procedure in working with State staffs for vocational education. Specialists in the vocational branches were no longer to work with State personnel of like training, but "generalists" would service all vocational branches. This action was repulsive to vocational educators in the States and the U.S. Office. Seemingly this new procedure was backgrounded by academic type liberal arts educators who were in the higher echelon of administration and who neither understood nor were in sympathy with vocational education. Many of them were jealous of the achievement and growing popularity of vocational programs. Admittedly there were "Tories" among those claiming vocational adherence. The seriousness of this situation was apparent to vocational leaders dating back to those active in the establishment of the organic Vocational Act of 1917. These leaders would not stand idly by and let a proven and highly acceptable educational program be scuttled. The States' staffs for vocational education fought successfully for the cause. It was most stimulating to Dr. Spanton and other long time warriors for vocational education, when in 1951, there was a move back to the former sound procedure of specialists working with the state staffs in the service branches. Thanks are due to Dr. Spanton, who revealed an intense concentration on how best to achieve worthy goals, that few administrators can equal. Unfortunately, the scepter of the academic liberal arts personnel was again raised, "on a divide and conquer bases," starting about 1963 and a

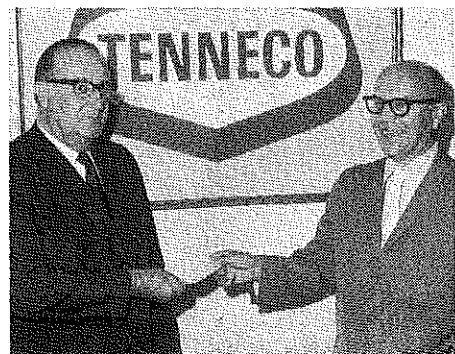
resultant chaotic condition continues to worsen to a near annihilation of vocational education on a national level. We must credit Dr. Spanton with being the main force that delayed this lethal blow by at least 12 years.

A final warning from Dr. Spanton upon his retirement was as follows: "Hold fast to the gains that have been won since 1917, and forge ahead with a strong, practical, dynamic and vigorous program which will effectively meet the challenge of the future. Develop a program that neither political opportunities nor academic theorists can dilute, integrate or submerge to the point that some of us Old Timers would no longer recognize it as vocational. Remember, "the best defense is a strong offense" and that "eternal vigilance is the price of liberty," and also of progress.

Yes, Dr. Spanton, we remember the words you repeated at your station by the Owl during each FFA delegate session in your capacity as Mr. National FFA Advisor — "I hope that my advice will always be based on true knowledge and ripened with wisdom."

FFA Foundation

Support for vocational agriculture by business and industry is demonstrated in a practical way in the activities of the FFA Foundation. Here Stuart D. Baker (left), Director of Federal Government Liaison for J. I. Case Company, presents a personal donation to the National FFA Foundation, Inc. Receiving the check for the Foundation is Assistant Vice President of the Seaboard Coast Line Railroad, Robert N. Hoskins, the South East Regional Coordinator for the FFA Foundation. Baker, a former president of the Future Farmer of Virginia chapter at Bridgewater, Virginia, manages the Case Company's Washington, D.C. office.



Occupational Experiences For Teachers

Gary F. Beasley
Research Associate
Center for Vocational Technical Education
The Ohio State University



Agricultural educators have long recognized that vocational agriculture teachers need experience in the subject field in which they teach. Many states require that teachers come from a farming background. Many institutions require that teachers possess farming experience but do not provide teachers with needed experiences in off-farm occupations. As we broaden the offerings in agricultural education, a problem of growing concern is that of developing and improving the occupational competency of teachers.

Because some vocational agriculture teachers may not keep abreast of occupational changes brought about by advancing technology in business and industry, they are failing to provide students with current knowledge and skills needed for successful employment. If teacher education programs are to equip vocational teachers with pertinent occupational competencies, several problems must be resolved. For instance, how can teachers keep current their own knowledges and skills needed in business and industrial occupations? When and where can they obtain on-the-job occupational experiences? In what manner can the teachers obtain all of these experiences in the shortest possible period of time?

What Teachers Can Do

There are many ways in which teachers can upgrade their occupational competency. A meaningful work experience in agricultural businesses and industry can be obtained solely by the individual teacher. This work experience is more likely to be acquired during the summer. Teachers can be granted a leave of absence to work in an

industrial setting in which case the terms of the leave can specify the types of acceptable work experience. Teachers can enroll in in-service workshops, institutes, and summer programs designed to update occupational competency—these programs may include field trips and lectures by business and industrial personnel. Continuously teachers should strive to update themselves through professional reading and by attending professional conferences.

What Teacher Educators Can Do

Higher education institutions and industry could cooperatively bring about important breakthroughs in vocational and technical teaching. The most systematic program for improving the occupational competency of teachers would be a cooperative occupational experience program involving business and industry. Such preparation programs will of necessity involve some new relationships between educational institutions and business and industry.

In an attempt to inform teacher educators and state supervisors of efforts that have been and are now being made in this direction, eleven programs have been reviewed which include cooperative arrangements with business and industry.¹ In addition to reviewing selected programs developed to improve the occupational competency of vocational and technical teachers, guidelines were drawn from these programs which should be useful in the development of additional programs.

Program Objectives and Strategy

As programs to improve the occupational competency of vocational and technical teachers are developed, specific objectives should be formulated within a common framework of general objectives. These specific objectives should reflect the special needs of the respective participants. A suggested framework of general objectives in-

cludes the following points:

- (1) To improve the occupational competency of vocational teachers in preparing students for the world of work.
- (2) To learn about new technologies and practices used by business and industry so as to further curriculum and program development.
- (3) To promote school-business-industry cooperation in the education of vocational and technical teachers to maintain industrial relevancy.

A strategy should be formulated to develop, implement, and operate programs to improve the competency of vocational teachers. Such a strategy should incorporate the following points:

- (1) Adequate time must be allowed to plan the cooperative teacher training program and to consider such needs as staff, curriculum, and the people to be served. Whenever possible, the staff and participants should be involved in these planning activities. An advisory committee should be a valuable resource in program planning.
- (2) An orientation program should be planned. Participants need to understand their roles in the program, what is expected of them, and what they can gain from active participation.
- (3) Industry and business personnel who are going to serve as instructors, consultants, and supervisors need to go through an orientation period in order to become familiar with educational practices and to learn some teaching methodology.
- (4) While in the work training phase of the program, participants should be visited by the coordinator. Such visits should help the trainee adjust to the work situation.
- (5) Efforts should be made to insure feedback necessary in detecting problems and in evaluating the program. Such feedback may be provided through seminars, surveys, class discussions, employer evaluations, and through visitations.

Program Staffing

The success or failure of any educational program is related directly to the quality of the staff. Thus, every effort must be made to recruit staff members who are effective in planning and operating new programs. Consideration should be given to the following points:

- (1) Vocational teacher educators presently on the staff should be considered as a source of teachers and administrators for the cooperative teacher education training program. Such personnel may teach classes in methods and curriculum development or serve as program coordinators.
- (2) Business and industrial personnel should be utilized when possible. This may mean using business and industrial personnel as consultants, as supervisors of on-the-job training, as teachers in an exchange program or as resource people.
- (3) A coordinator of the program, whether in-service or preservice, should be designated and he should be provided with an adequate supporting staff. This coordinator should be chosen early so that he can participate in planning the program and in establishing objectives.

Careful consideration should be given to the role of the program coordinator. This person has an important part to play in making the program a success. The coordinator should be concerned with planning the program, selecting participants, selecting work stations, visiting the participants at their work stations, and evaluating the participants and the program.

Areas Of Concern

When analyzing the problems which might arise in preparing occupationally competent teachers, the following points should be considered:

- (1) The type of work experience must provide the most beneficial learning experience for individual teacher situations.
- (2) The occupational experience program should provide time for adequate experience in the functions of industry and in occupational requirements.
- (3) Vocational teacher education programs should include occupational experience as a requirement for graduation.
- (4) Occupational experience should be required for certification and to maintain certification.
- (5) In areas where there is a lack of industry, provision must be made to give vocational teachers the necessary training in programs such as summer workshops.
- (6) Occupational experience programs must be organized to in-

sure participation of all vocational education teachers.

- (7) Programs should be provided to allow for participation of teachers without a strain on the local school.
- (8) The occupational experience program must be integrated with the existing teacher education program to insure adequate teacher preparation.

When summer experiences are used to gain occupational competence, the questions of financial support arise. The undergraduate student may be counseled and encouraged to seek his own occupational experience, although many may be unable to find adequate jobs. Adequate supervision and guidance must be provided to insure the best occupational experience for teachers.

When the occupational experience programs utilize industrial facilities, instructional use often conflicts with production use. The work experience programs should be arranged to provide for the least amount of conflict. The participants in the training program must get experience with the most advanced equipment in industry and business to insure adequate teacher preparation.

Needed Research

The review of cooperative teacher training programs already in operation revealed a variety of patterns. In an effort to improve the occupational competency of vocational and technical teachers, some programs incorporate a structured work experience while others rely on observation of business and industry personnel. Also, industrial personnel have been used to teach classes and to recommend curriculum revisions.

The different patterns that have been involved in the development of these programs indicate a need to evaluate each approach to staff development to see which is most easily adapted to certain given conditions. Such research would indicate the desired structure of the work experience as well as the length and placement of the experience. Likewise, research on the effectiveness of these programs through followup studies should indicate the most effective use of business and industrial personnel, the observation method, and field trips.

¹Beasley, Gary, and Smiley, James. *Occupational Experience for Vocational Education Teachers: A Handbook for Teacher Educators*. Columbus, Ohio: ERICK Clearinghouse on Vocational and Technical Education, The Center for Vocational and Technical Education, The Ohio State University, June 1971.

Professional Improvement — A Mutual Concern

Richard L. Johansen
Director of Public Relations
Farmers Union Grain Terminal Association
St. Paul, Minnesota

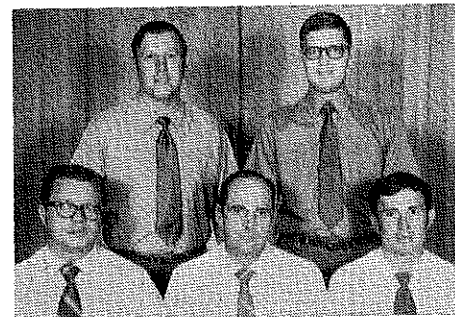


One of the best ways to help rural communities is to lend a hand to their vocational agriculture teachers.

This is the conviction which the board of trustees of the Grain Terminal Foundation has translated into a scholarship program for vo-ag teachers in the four-state area in which GTA serves over 600 local cooperative elevators.

Back in 1960 the program got its start when the Foundation's trustees approved a grant of \$1,000 to be used by the North Dakota Vocational Agriculture Association as scholarships for vo-ag teachers in working toward advanced degrees. The grant was repeated in 1961 and the next year expanded to include similar programs for Minnesota, Montana and South Dakota.

This means that a total of \$42,000 has been disbursed in scholarship aid for vo-ag teachers in the four states and that the group of teachers who have received Grain Terminal Foundation scholarships now includes several hundred, many of whom have gone on to wind up study for their degrees.



1971 South Dakota Vo-Ag (GTA) Scholarship Winners — Front row (left to right): Richard Larson, Gettysburg; John Begeman, Salem; Thomas Dage, Lake Preston. Back row: James Kanable, Pollock; Harry Munkvold, Centerville.

The aim of the program has been to give incentive to vo-ag teachers to get added training to keep pace with the many changes and growing complexity of modern agriculture.

It was apparent to the Foundation trustees that vo-ag and FFA were training youth to be capable farm operators and community leaders. They had seen first-hand the skill and poise of farm youth who had the opportunity of training and taking part in the various FFA contests.

They also knew that many of these youth would not be farming and, instead, are an excellent source of skilled manpower for cooperatives, both at the local and regional level, and for other key jobs in the vast agribusiness field.

It was apparent, too, to the trustees that the effectiveness of vo-ag and FFA depends heavily on the vo-ag teacher. Thus, they decided on the scholarship program as the Foundation's way to help the teacher grow in professional skills.

"We are strong supporters of voca-



1971 Montana Vo-Ag (GTA) Scholarship Winners—(Left to right): James Lewis, Helena Vo-Tech Center, Helena; James Armstrong, Manhattan High School, Manhattan; Ben Hurley, Hardin High School, Hardin; Tim Schaff, Saco High School, Saco.

tional agriculture because we have seen the results in the lives of people," said B. J. Malusky, chairman of the Foundation. "We know that vo-ag teachers are playing a vital role every day in the developing of a better future for rural America. We are convinced that much depends on their contributions in the shaping of leadership and good farm management practices for tomorrow.

"Many of GTA's patrons, members of affiliated co-op boards of directors and employees got early and vital training in vo-ag classes and in FFA chapters. We are pleased to be able to make this scholarship aid available as a means of helping to upgrade skills of teachers and encourage them to make careers as dedicated teachers.

"We know that the greatest return on this investment is to be found in the lives of farm youth who have had an opportunity to be part of a vo-ag program in their home communities.

Now a word about the Grain Terminal Foundation. Farmers Union Grain Terminal Association was set up in 1938 as a regional grain marketing cooperative. In its early years, its board of directors also set up an insurance service organization, Terminal Agency, Inc., for affiliated elevators with earnings to go to the Grain Terminal Foundation.



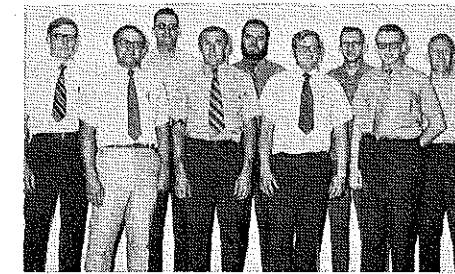
1971 North Dakota Vo-Ag (GTA) Scholarship Winners—(Left to right): Elroy Rostberg, Kindred; Norbert Mayer, Wyndmere; Les Nettum, Finley; Carl B. Haas, Elgin; Ronald W. Larsen, Napoleon; Marlow Nelson, Tioga.

Each state vo-ag teacher's association decides how its scholarship grant from the Foundation is to be distributed.

The North Dakota association allots five scholarships of \$200 each year. South Dakota's association allots 10 scholarships of \$100. Montana follows a policy of distributing four \$250 grants. Minnesota distributes ten \$100 scholarships.

In each state the selecting of scholarship winners from the applicants is made by a special committee appointed for this specific task.

In all four states the selection committees use criteria including the following:



1971 Minnesota Vo-Ag (GTA) Scholarship Winners—Front row (left to right): Laverne Bushlack, Kasson; Gilman R. Shubert, Byron; Brian Ingvalson, Fridley; Victor Richardson, Jeffers. Back row: Kenneth Stark, Litchfield; Wayne Flynn, Worthington; Ronald Erpelding, Montevideo; Boyde S. Anderson, Spring Grove; Michael Foley, Melrose. Missing from Photo—Gordon Jindra, Mankato.

1. Vocational promise
2. Academic aptitude
3. Character
4. Leadership

"The scholarship program enabled me to attend the first summer session to continue work on my master's degree program," said one of the 1971 recipients. "The two courses I enrolled in will enable me to do a better job of classroom instruction and supervision . . ."

That comment sums up well the purpose of the Grain Terminal Foundation scholarships.

VOCATIONAL AGRICULTURE CAREER FAIR

Leonard Larshus
Vocational Agriculture Instructor
Stanley, North Dakota



Teaching students about the wide range of jobs in the total field of agriculture is one of the greatest challenges facing the present day vocational agriculture instructor. To conduct classroom instruction on all the careers, or even those of immediate interest to the students in the class is a near impossible job. Yet career orientation and job study must be an important part of the vocational agriculture curriculum if students are to be trained for employment in all phases of agriculture.

In an attempt to strengthen the curriculum in the area of career orientation at Stanley High School, Stanley North Dakota, Career Fair was started two years ago. The purpose of the fair was to encourage students to research and explore a specific career of their choice. The initial assignment, including an outline of what was expected of the student was made about the

first of December with the Career Fair held in April. Three progress reports were due between the time of making the assignment and the date of the Career Fair. This gave the instructor a chance to evaluate the progress and provide assistance to those having problems locating sources of material.

Some of the information students were asked to gather were:

- a. Specific requirements of the job.
- b. Educational requirements of the job.
- c. Job opportunities in the future.
- d. Financial rewards of the career.
- e. Non-financial rewards.
- f. Chances for advancement.

The assignment sheet also listed suggested sources of information on careers.

The end result of several weeks of research, including the writing of several letters, was the Career Fair which included a display and description of the student's selected career. Most of the students chose to mount their displays on a table with some type of backboard. Others attached their display to the wall. Students

employed a wide range of display techniques, including pictures, charts, graphs and models. Many of the students interviewed persons working on the job and some included pictures they took of persons at work.

Two outside judges ranked the displays in blue, red and white ribbon groups. A donation of \$50 provided cash prizes to the top five displays. Open house was held in the evening along with an FFA sponsored pancake supper. A large crowd viewed the 86 displays which nearly filled one half the gymnasium.

The instructor feels that the Career Fair is a useful tool for getting students involved in a detailed study of a career of their choice. Not only do students learn about the one career, but by viewing other displays and hearing their classmates tell about a career, they gain knowledge of a wide range of careers. Holding an open house and inviting the public to view the displays, can provide some very good public relations. What more effective way can you show the public that vocational agriculture is more than farming?

"Teachers Work In Industry

To Keep Credentials Valid"

Jim Beardsley
Delta College
Stockton, California

Does this headline worry you? It shouldn't, because it's not for real. Perhaps it may come to pass in the future. We might see *all* teachers taking time out to return to the world of work. Should schools go to an all year schedule, teachers would have a real opportunity to be brought up-to date in their respective fields during one of the "free" quarters.

What is to be gained by a stint in work experience? Plenty. You get a new outlook about your value as a school teacher *vs.* the industry man's value to society. It helps to re-orient your teaching procedures to train your students to move into the big field of employment. If you aren't teaching some "saleable skills" to your people you should take inventory of your teaching program. For today, if that employer cannot make money off of the kid, then he cannot afford to hire him. There is no question that a great deal of on-the-job training takes place, but you can teach many skills first.

I found other values from work experience. You learn short-cuts that can be passed onto your classes. Sometimes we school teachers lose sight of the fact that most industry is paid by the hour so to get production, short-cuts are used. For example, during a period this summer in a Cummins fuel injection shop the pump man was seldom observed using a vise, much less mounting the pump on a fixture — too much time lost in fastening and unfastening.

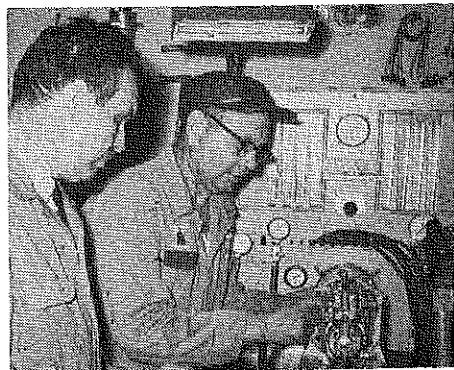
You learn a great amount of nomenclature in the specific trade. This helps in the classroom because you speak the right language and hence can emphasize points with more realism.

Probably the real advantage of work experience for teachers is to move into an unfamiliar area and get technical

background and information you need in the classroom. You just cannot beat working with industry for zeroing in on a certain phase in which you need more competence.

Last, but not least, work experience makes you realize how lucky you are to be a school teacher: good wages for those days you are working (try putting your class teaching time on an hourly basis and figure your hourly wage — you'll be surprised); fringe benefits improving each year; flexibility in your use of time; ample time off; some pressures, sure, but not those generated by profit and loss.

It all seems much one-sided — all this valuable experience you are getting. But there is some image building you can do. If you are on the ball you may reverse an industry person's poor opinion of school teachers or the school



Jim Beardsley (left) observes the shop man adjust a Cummins fuel injection pump before attempting it himself. This teacher in a California Community College (Delta) upgraded his competencies in agricultural power instruction through participation in a four weeks workshop experimental program for teachers conducted by U.S. Davis as part of their E.P.D.A. program in cooperation with the State Division of Vocational Education.

system. You may be his only real contact with that place so much of his taxes go each year.

You have a chance to swap some ideas about the training of your people. He may have one you never thought about.

How do you line up a job in industry? The following works for me:

1. Make contact early in spring for the following summer.
2. Be sure you to get to management and the man you will be directly under.
3. Drop by occasionally at the place of business, it helps to establish your interest.
4. If you are to be paid make no mistake of hours, days off, number of weeks to work, starting and ending dates, etc.
5. Do not criticize the operation. After you have been there forty hours you may understand why certain things are done a certain way.
6. If things are a little slack, find something to do. Sweep the floor, hunt for shop rags, put away tools, etc. Whether you are paid or not, this lets the owner know you are appreciative of his time in giving you technical training.
7. It helps to get the local newspaper or television station to run a story on your training and the place you work, but check with the boss first.
8. Follow up later in the school year with an invitation to your school barbecue, open house or demonstration night. He just be willing to serve on your advisory committee after he sees your school facilities and is familiar with what you are trying to accomplish in your instructional program.

Blue Power

Dr. Forrest Bear
Dept. of Ag Education
Dept. of Agric. Engineering
University of Minnesota



Some industries have been quick to recognize the value of vocational training. They signify their recognition in a number of ways, some by seeking out vocationally trained people for employment, some by verbal

support of educational programs and still others by making materials or items they produce available to schools and colleges for use in their instructional activity.

The Ford Motor Co., Tractor Division has aided the instructional programs in many school mechanics laboratories by supplying a power train unit. This article describes how such a unit can be used effectively in agricultural mechanics instruction.

WHO

Agricultural mechanics classes study ignition analysis, routine service and maintenance, horsepower determination, carburetor adjustment, hydraulic system analysis, transmission and power take-off problems and other topics when a tractor is available in the agricultural mechanics shop.

WHAT

It is desirable to have one special tractor for demonstration purposes because the instructor can organize lessons for that unit. Specific ignition analysis lessons which can be developed for a tractor power unit are as follows: battery testing, dwell-tach meter operation, timing light operation, combustion analyzer operation, voltage regulator cutout testing, points resistance testing, battery ignition KV. outputs testing and battery ignition resistance testing.

The tractor specifications, service manuals, charts, visual aids, and other essential data can be cataloged for quick reference for each demonstration. The demonstration lesson outlines and the other materials can be organized in a special file and/or cabinet for ease of operation. Thus, the selection and use of one tractor improves the proficiency of the instructor because he has an opportunity to become familiar with the tractor, teaching aids, and the test equipment. The basic principles are taught on the demonstration tractor and exceptions to these rules can be taught with the supplemental films, brochures, slides or by bringing in the other types of tractors.

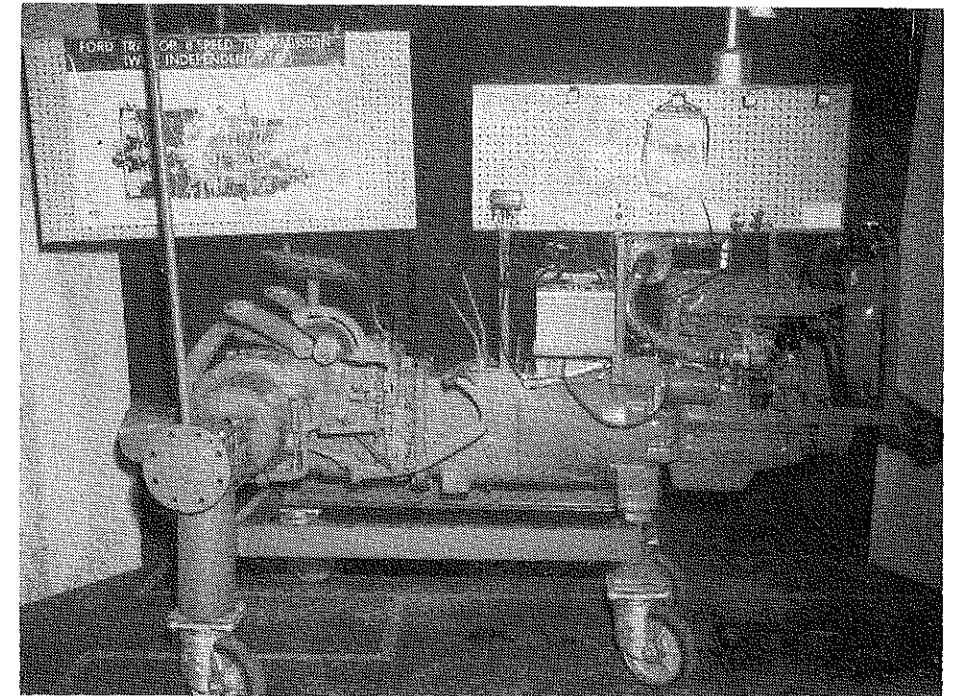
WHEN

The theory for each agricultural mechanics shop to have a tractor unit is excellent, but the practice is difficult because of the expense involved. The Ford Motor Company, Tractor Division, has alleviated this problem for schools who can qualify for their power train, instructional manuals and poster package.

WHERE

To obtain the power train unit a school can contact either the local Ford tractor dealer or the District Administrative Manager at the regional Ford Tractor Operations Office.

An application form explaining the



Ford 3 cylinder, 201 cubic inch displacement gasoline engine with an 8 speed manual shift transmission and rear axle used in the University of Minnesota, Department of Agricultural Engineering instructional program.

type of instructional programs which will use the power train unit and the number of student contact hours must be completed. Basically, each school must have justification for using the power train unit twenty clock hours per week with at least twenty students. After the application form is submitted to the Ford Tractor Company, the regional zone manager will visit the school and interview the teacher. The application and school visitation will determine if the school qualifies for the power train package.

The Ford tractors are either diesel or gasoline units. The power train is delivered in a crate and each recipient must construct a stand for the unit and develop the instructional units which are best for the instructional program. The University of Minnesota received a 3 cylinder 201 cubic inch displacement gasoline engine with an 8 speed manual shift transmission and rear axle.

The Ford power train pictured was developed for use in the Department of Agricultural Engineering, University of Minnesota, St. Paul. A stand was constructed with large castors to facilitate moving the tractor around the shop. Height of the units was designed to permit the utilization of the drawbar dynamometer for determination of horsepower, carburetion and adjustment, etc. Remember the need to construct a drawbar hitch for the dynamometer.

HOW

The wiring harness and radiator cooling system are not included with the power train unit. A number of methods can be used to obtain or develop makeshift ignition and cooling systems, but fewer problems are encountered by ordering these components from the local Ford dealer at an approximate cost of \$125. The expense of the castors, stand and other modifications are dependent upon the basic design and local costs. A more attractive package is provided when standard component parts are used and the stand is painted Ford blue. Neat, clean and well-organized teaching aids command greater academic response from students than if dirty, junky and disorganized shop equipment is provided.

The recommended journalistic approach is to answer who, what, when, where and how in the lead line of an article but this time it has taken the entire copy. Thus, the action comes when you obtain a tractor, write the lessons, prepare instructional aids and teach your agricultural mechanics classes.

Changing Curriculum?

Rodney W. Tulloch
Department of Agricultural Education
Washington State University
Pullman, Washington



For over 100 years, the U.S. Department of Agriculture has engaged in more activities of service to the farmer and the consumer than any other department or agency of the Federal Government.

The department has played a continuous role in the economic growth of America, helping create a technological revolution in agriculture. However, while the Department's history of accomplishments give cause for pride, there are still problems of vital concern. Some of these are underconsumption, overproduction, conservation and use of resources, and the need for greater opportunities for rural people in off-farm occupations.¹ As agriculture teachers we have a responsibility to impart basic information about the USDA.

Activities of the USDA

In one way or another the work of the Department of Agriculture touches every American every day.

Employees of the Department help to conserve forests, water, and soil resources and to revitalize land that is unproductive; inspect meat and poultry, eradicate pests, and protect the National Forests; operate the largest food-service industry in the United States, the National School Lunch Program; conduct research in crops, automation, pests, food, the biological sciences, and natural resources; represent the United States in international meetings and aid in the marketing of the abundance of American agriculture; insure crops against drought, flood, insects, and hail, and provide loans for the development of rural America.

These and hundreds of other services have a far-reaching effect on the health, welfare, economy, and security of the nation.

Occupational Opportunities in the USDA

The department has over 100,000 employees who have opportunities for community service, self-development, and scientific contributions. They work in hundreds of offices, laboratories, and installations throughout the United States, in its territories and in many foreign countries. They perform almost every kind of work done in private employment, as well as many jobs unique to the Government.

The U.S. Department of Agriculture operates a long-range recruiting program directed toward the Nation's colleges and universities. It is not recruiting just for today's needs, but for the future as well. The young men and women who measure up to the required standards and who can grow and develop on the job may aspire to the highest career assignments in the years ahead. They will be the career managers, the skilled technicians and the professional leaders of tomorrow.

Teaching about the opportunities in the USDA should be a challenge to every teacher of agriculture. A discussion of one agency of the USDA will suffice to stimulate ideas to help teach about all agencies.

Development of Farm Programs

The Agricultural Stabilization and Conservation Service, ASCS, is an agency of the United States Department of Agriculture. Several of the programs administered by the ASCS are the results of promises made by Franklin Roosevelt in his first campaign for President. Following the worst depression in this country's history farmers were desperate. President Roosevelt helped push the Agriculture Adjustment Act (AAA) through Congress in 1933.

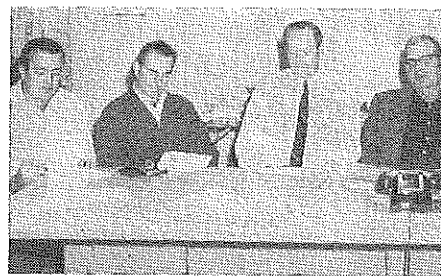
In 1936 the United States Supreme Court cut back many of the AAA programs with a ruling that the government could not regulate production. In 1936 the Congress passed the Soil

Conservation and Domestic Allotment Act establishing the farmer-elected committee system. The entire production adjustment idea was conceived by many to be a temporary stop-gap measure. It would appear after more than thirty years of operation that the ASCS has become a permanent agency. A little background should help students understand how and why farm programs have evolved.

The ASCS was named and organized in 1961, succeeding the Commodity Stabilization Service. The county offices and the full-time office manager and district fieldmen are excellent resource persons for either high school or adult classes. Most rural school districts will have at least one community or county committeeman who is willing to help.

ASC Committees and Leadership Development

ASC community committees are often called the cornerstone of the Farmer Committee System because they are the foundation committees on which the system is built.² The community committee is elected by local farmers and in turn elects the county committee. Working on one of these committees is an excellent opportunity to further develop leadership skills learned in the FFA and adult farmer classes. This is an area that should be emphasized while teaching about the ASCS.



A county ASC committee meets to discuss ASCS farm program policy for their county. (Photo by Rodney Tulloch)

Committee Responsibilities and Activities

The county committees are responsible for the county ASCS office located in or near the county seat. They hire a county office manager to administer ASCS farm programs on a day-to-day basis within established state and county ASC committee guidelines. The manager hires the necessary office and field workers to operate the county office. This being the only place in most counties with a full-time staff makes it one of the first places a farmer comes to for information or to sign up for agricultural programs for the county.

In the bulletin, "The Farmer Committee System," the following areas of responsibility are listed for county committees: production adjustment, conservation, price support, storage activities, sugar program, emergency disaster as-

sistance, wool, cropland conversion, feed grain, and wheat stabilization programs. Using a student's farm as an example and showing how one or more of the above programs would apply to that farm will help the student personalize the information.

The decisions necessary in the above programs and the large numbers of people involved usually leave some who are unhappy. Therefore, the committee must also hold hearings and review violations. Some of the cases that the county committee must judge are very difficult, requiring a delicate balance between the individual and the public welfare.

When a better understanding of the USDA has been reached by everyone in agriculture, more significant achievements and contributions to society can be expected. As teachers of agriculture, we have much to learn and teach about the ASCS.

¹Profiles: Careers in the U.S. Department of Agriculture. 0-7230754, Washington, D.C., U.S. Government Printing Office, 1964, p. 1, 2.

²The Farmer Committee System. PA-576, Washington, D.C., U.S. Department of Agriculture, August 1963, p. 4.



CORNSTALKS

(a philosophy of work)

Mute evidence of the harvest past
Are the cornstalks, broken and lodged.
Once golden ears they held up to the sun,

Now like men when their work is done.
From single kernels of corn they came
Sending the green spears above the earth.

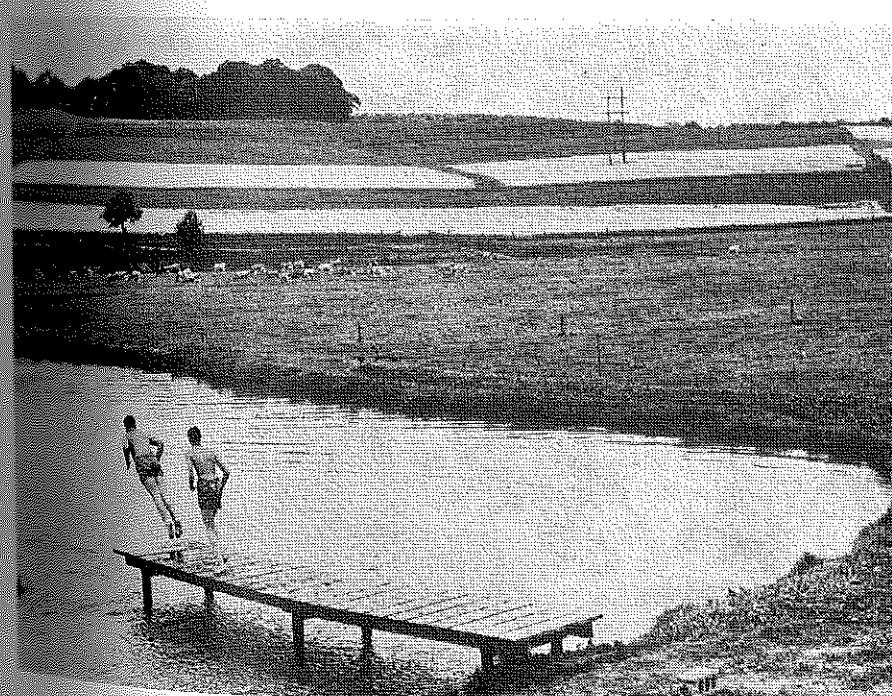
In midsummer silks and tassels grew
That the grains might fill by nature true.

Now from the cornstalks life is gone,
Service to be rendered there is no more.
And Man,
When, for him, significant things are done

And he sits sunning in the sun
Without the joy of worthwhile work,
He, like cornstalks that have had their day,
Might as well return to earthly clay.

The late Carsie Hammonds
University of Kentucky

The most rewarding avenue for man's dignity and intellectual satisfaction is in service to his fellowman.



Cross-slope strips improve pasture and pond. (USDA photo)

Cooperation With Industry for Vocational Education in Outdoor Recreation

Bert Roberts, Agriculture Instructor
 Chariho Regional High School
 Wood River Junction, Rhode Island



Rhode Island has a vast array of outdoor recreational opportunities developed around the marine aquatic and forest environments. The Chariho Regional High School Agricultural Department presently offers a one year co-ed course in outdoor recreation. A survey conducted by the author indicated that 2013 are engaged on a part-time or full-time basis by 135 employers involved in Rhode Island outdoor recreational businesses.

The preliminary survey of outdoor recreation involving 32 firms indicated a need for trained students having at least a high school education. Most employers expect the individual to have at least a high school education. The survey reflects that 48 percent of the state employees in the Department of Natural Resources, Division of Parks and Recreation, have less than a high school education. This figure will change as persons with longevity retire and are replaced.

In ski areas, campgrounds, and camps and camping equipment, golf courses, and other outdoor recreation, the preliminary data indicate that employers desire to become involved in a cooperative work experience program. In marine recreation the 21 percent of the firms which would employ high school students in a cooperative work experience program reflects that these businesses are owner operated and employees are derived from within the family.

A major area not yet included in the survey includes municipal employment of individuals in playground supervisory capacities.

Preliminary Outdoor Recreation Employment Survey, Rhode Island 1971

Outdoor Recreational Area	Firms	Total Employment in State	Type Employment			Minimum Preferred Educational Level				Percent Of Firms Employing High School Students	Percent Of Firms Indicating Cooperative Work Experience
			Full Time	Part Time and Seasonal	Less Than High School	High School	2-Year Post Secondary	4-Year College			
Ski Areas and Equipment	5	207	27	180	—	100%	—	—	100	75	
Campgrounds, Camps and Camping Equipment	15	538	52	486	—	98%	.5%	1.5%	70	50	
Marine Recreation, Yacht Clubs, Beaches, Beach Clubs, Bait Shops, Charter Fishing Boats	35	214	31	183	14%	86%	—	—	63	21	
Marina Sales and Services	35	280	140	140	Survey Not Completed						
Golf Courses	51	384	98	286	6%	59%	29%	6%	89	89	
Other Outdoor Recreation: Stables and Tack Shops, Golf Ranges and Pro Shops, Children Zoos, Sporting Goods Stores, Bicycle Shops, Sporting Equipment Production, Department of Natural Resources, Division of Parks and Recreation	30	390	126	264	39%	59%	—	2%	75	54	

Environmental Education and Recreation

The Chariho program serves to acquaint the individual student with the environment and the opportunities available in the area of outdoor recreation. The environment is emphasized as its preservation, management and appreciation are prerequisites for all outdoor recreational opportunities both from a point of pleasure and occupational potential.

The course is developed around a premise of pleasure by doing. It is the purpose of the program to expose an individual to as many of the various job categories as possible through practical experiences gained in the classroom and on the 430 acre land management laboratory. The land is privately owned, but managed by the agricultural students.

Since the outdoor recreational placement opportunities in Rhode Island are

seasonal, students are exposed to those areas which could carry over as seasons change. As an example, a person working on a campground would be employed from April 1 to November 15; this same person could then transfer to a job associated with a ski area, and if weather conditions permit could be employed from November 15 through March 30. Some individuals would occupy full-time positions created by a normal 5 percent annual turnover of employees. Individuals could also travel, as seasons change, to other states to be employed.



The author, Bert Roberts and two class members observe life on the forest floor. Identification of plant materials and associations are considered in phases of the outdoor recreation program at Chariho Regional High School.

During a recent advisory committee meeting it was suggested that an employee should possess multiple skills. These skills would allow individuals to carry out various jobs and would provide them with greater qualifications for annual employment.

Camping and Campgrounds

Emphasis is placed on camping and campground operation. Within the class, site preparation and maintenance is considered. A model site is being developed, leaving a maximum of the natural environment. Camping equipment, camping, food and sanitation are discussed before a campout is planned. This year two camping trips were achieved on a pilot basis. The first was a weekend winter campout in sub-freezing weather and snow. A second campout was conducted during late spring with a weekend trip being made to the Adirondacks Region of New York. In the summer of 1972 Chariho FFA members in outdoor recreation will spend one week on a canoe-camping trip. "Doing" has made the students aware of the needs of campers.

Agri-Business Leadership and Management

Another area considered involves personal relations and how an employee interacts with the public. Personality and salesmanship are observed during this phase of instruction. Financing and expenses are also considered. The most common question asked by a student before venturing into a recreational enterprise is, "how much will it cost to establish the enterprise?". During the course of study, planning and operational costs of the various outdoor recreational areas are discussed so that the student will know what is involved if he should enter into a business of his own.

Outdoor Management Lab

In outdoor management, a 17-station ecology laboratory is being developed by the students using varied terrestrial and aquatic environments. Students are preparing trails and sites. A script is being developed for each station. Agriculture students will be available to assist instructors in science and elementary education when the laboratory is opened to students



Pruning is accomplished by students during the preparation of a campsite. Co-eds adapt well to all phases of the outdoor recreation offering.

throughout the state. A cooperative agreement has been established between students of the high school agriculture department and the land owner under The Rural Environment Assistance Program. The Forestry Department and the Soil Conservation Service are cooperating in the planting of 1500 white pine and larch seedlings, thinning and

pruning existing stands, maintaining and constructing fire trails, building and erecting wood duck boxes and establishing wildlife food patches. This phase of the program is useful to those students seeking employment in nature and wildlife programs at summer camps.

Associated Areas

Although Rhode Island does not lie within an intense snow belt, there are four ski areas within the state. Two of these are near the school. For job opportunities in ski areas, students are familiarized with ski equipment and techniques. The students are encouraged to ski and gain more understanding of the pleasures of skiing. Students also receive orientation in the operation of ski areas and snow making.

Chariho Regional High School exists within a seashore community and this natural environment affords the student a natural laboratory in which an understanding of marine recreation may be gained. A study of beach management, lifeguarding and associated occupations coincide with this phase occupational investigation.

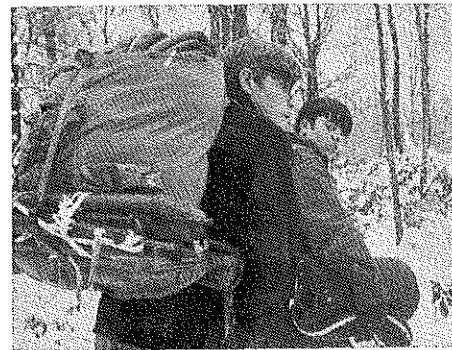
In golf, the student becomes familiar with the game and gains an appreciation of golf course design and turf maintenance. Rhode Island has over fifty golf courses and there are many jobs available to agricultural students on these courses both on a seasonal basis while the student is in school and as a full-time occupation following graduation.

For playground supervision opportunities, the students become familiar with arts and crafts, carrying out and demonstrating techniques in leather, wood, wire, beads and paints. Drama, music and games associated with playgrounds are also experienced. In the spring of 1972 the Chariho Agricultural students will work cooperatively with



To experience, to enjoy, to be productive employees is the theme of the Chariho program. These students are fishing in a pond at the land management lab. Safe boat handling is also offered.

elementary schools within the region in introducing a playground program to include the previously mentioned areas. The experiences gained in dealing with the elementary school students will be valuable during summer placement in playground supervisory roles.



Backpacking during the winter campout was one aspect in a weekend which involved planning and cooperation. Exposure to camping at varied times of the year has been a valuable phase of the program.

Dr. W. H. Annis stated in *Employment Opportunities and Educational Requirements for Jobs in Outdoor Recreation*, "the findings of the initial phase of the investigation indicate that the outdoor recreation complex does offer opportunity for employment now and in the future and that formal programs are needed to train personnel for these jobs." As the Charho Agriculture Department begins its second year in offering outdoor recreation, the department feels it is beginning to meet the need expressed by Dr. Annis. This is being accomplished through a pleasure oriented program in which students participate in various phases of outdoor recreation while gaining an understanding of employers' needs. These students, because of their experiences, will be able to better serve employers in a part-time or full-time capacity.



Special Note from the Editors

The September 1971 issue of this Magazine carried an item titled "The Ten Commandments for the Teacher" by Victor M. Wohlford. Victor H. Wohlford of the State Department of Education, Arkansas asks us to remind you that middle initials do make a difference. He claims no credit for the commandments.

The Product And The Consumer

Allan D. Goecker
Consultant, Agri-Business Education
Department of Public Instruction
Indianapolis, Indiana

In the present consumer-oriented society, business and industry constantly determine the market potential for a vast and changing array of products. Market research attempts to determine what products are consumed, why consumers choose a product and which items will be purchased in the future.

Analogous to the products in the American marketplace is vocational agriculture in the local educational system. The opinion of the consumer, in this case, the student and the potential employer, is an integral factor in program planning to encourage increased acceptance of an educational program. Realizing the need for consumer information regarding vocational agriculture in Indiana, an extensive sampling of student opinion regarding program emphasis was conducted during 1970-1971.

Over fifty percent of the students enrolled in vo-ag in Indiana responded to the opinion instrument. A random sample of junior high schools was selected as "potential consumers" of vocational agriculture.

"Present Consumers" of vocational agriculture reflected a preference for programs currently being offered in local schools. They also indicated a decreasing preference for training in

production agriculture as advancement from grade nine to twelve was achieved.

"Potential Consumers" of vocational agriculture expressed significant interest in agriculture career areas receiving little emphasis in the major portion of local vo-ag programs today. They indicated a divergent preference for the type of vo-ag training desired based upon the sex of the student.

The Student Opinion Instrument

A one page instrument was administered by teachers and completed by the students. Seven groupings of agricultural career interests based upon the U.S. Office of Education classification were identified for ranking by students. A brief description of the agricultural career areas and some possible occupations was provided.

Eighty-two percent of the vocational agriculture departments in Indiana in 1970 utilized a curriculum combining production agriculture and agricultural mechanics. From the survey results, one may infer that student opinion closely reflects the instructional emphasis of the local program.

In a similar situation, one might expect to find that Spanish is the most popular of the three languages, French

Table I. Response of 6692 Indiana Vo-Ag Students in Agriculture Career Areas (Expressed in %)

	Findings						
	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice	6th Choice	7th Choice
Agriculture Production	37.3%	20.1%	13.3%	9.6%	6.9%	6.6%	6.2%
Agriculture Supplies	5.2	13.0	24.1	19.6	15.7	12.7	9.7
Agriculture Mechanics	34.7	25.5	13.8	9.8	6.4	4.9	4.9
Agriculture Products	3.9	11.2	16.3	25.1	17.9	16.3	9.3
Ornamental Horticulture	3.4	5.5	7.5	9.7	15.2	21.6	37.1
Agriculture Resources	9.8	11.8	14.4	14.5	23.7	16.4	9.4
Forestry	5.7	12.9	10.6	11.7	14.2	21.5	23.4

German, and Spanish if one surveyed a high school Spanish class.

Students reflected interest in specialized vo-ag courses where they were in operation. Student interest response for ornamental horticulture was significantly greater in vo-ag departments offering courses in this specialty when compared to student response of all departments surveyed.

Interest in specialized courses was not limited to horticulture. Similar reaction was also noted in agriculture mechanics. Schools which had increased agricultural mechanics emphasis with intensive courses were compared to all schools surveyed with results indicated in Table II.

A shift of agriculture career interest as the vo-ag student progresses from the freshman to senior level is evident. The predominant characteristic is movement from interest in production agriculture to other areas. A summary of the students "First Choice" interest response by grade level is present in Table III.

As opinions of current consumers of a product in the marketplace assist market analysts in completing management recommendations, the responses of vo-ag students do indicate the current acceptance of program offering.

However, a major priority in business

is growth and market expansion. Similarly, vocational agriculture educators should direct attention to the potential consumer, the junior high school student, in planning a vo-ag curriculum. The opinion instrument utilized at the high school level was also presented to all 7th and 8th grade students in a random sample of ten junior high schools.

The data from junior high students indicate that some adjustments in curriculum away from the traditional agricultural production and agricultural mechanics could potentially increase participation in the local vocational agriculture program. One should ascertain what areas of vocational agriculture would be most acceptable in the school community before making any adjustments. The areas of ornamental horticulture and natural resources have good student acceptance along with production agriculture and mechanics.

The survey attempted to identify what the present and potential consumers of vocational agriculture are expecting from the program. Certainly, the results only scratch the surface in identifying student opinion as it relates to vocational agriculture. There appears to be a need for more study of the effects of student opinion in selection a program in vocational agriculture.

Table II—Comparison of Student Interest in Agricultural Mechanics in All Indiana Vo-Ag Departments Surveyed and Departments Offering Intensive Courses in Agricultural Mechanics (Expressed in %)

	1st Choice	2nd Choice	3rd Choice	4th Choice	5th Choice	6th Choice	7th Choice
	%	%	%	%	%	%	%
All Vo-Ag Depts. Surveyed	34.7	25.5	13.8	9.8	6.4	4.9	4.9
Vo-Ag Depts With Intensive Agr. Mechanics Courses	46.7	20.7	9.7	9.8	4.5	5.0	3.6

Table III—"First Choice" Interest Response of Indiana Vo-Ag Students in Agriculture Career Areas by Grade Level 9-12. (Expressed in %)

	9th Grade	10th Grade	11th Grade	12th Grade
	1st Choice	1st Choice	1st Choice	1st Choice
Agriculture Production	40.0%	37.4%	36.2%	34.0%
Agriculture Supplies	4.9	4.9	6.2	5.2
Agriculture Mechanics	33.6	35.3	35.5	34.9
Agriculture Products	4.3	3.6	3.2	4.5
Ornamental Horticulture	2.7	4.0	3.1	3.9
Agriculture Resources	9.7	9.1	9.6	11.2
Forestry	4.8	5.7	6.2	6.3

BOOK REVIEWS

FACILITATING CAREER DEVELOPMENT: AN ANNOTATED BIBLIOGRAPHY, Larry Bailey, J. (ed.), Springfield, Illinois: Board of Vocational Education and Rehabilitation, 1970, p. 132. Free.

Although the number of textbooks and journals devoted to career development theory and research has increased in recent years, there is additional need for the present publication. A trend accompanying a rapidly expanding field of endeavor is greater and greater specialization. Specialization has resulted in the need for publications of the type which have dissemination as their primary objective. The purpose of this annotated bibliography is to present applications derived from theory and research with the view to finding new directions for implementing career guidance within the classroom. This compilation of literature is delimited to programs, practices, techniques, etc., that are operational or have demonstrated potential for enhancing the process of career development. The emphasis is on relevance and applicability for comprehensive programs of occupational education and career guidance.

Primary reference sources for the publication were Research in Education, November, 1966, to March, 1970, and Education Index, July, 1964, to March, 1970. The methodology consisted of identifying, procuring, and abstracting publications characterized by an a priori list of descriptors. A total of 422 references is cited in the following seven chapters: (1) Computer-Based Guidance Systems, (2) Models and Techniques for Career Guidance, (3) Career Development Conferences, (4) Experimental, Exemplary, and Curricular Programs, (5) Gaming, Simulation, and Career Guidance Kits, (6) Measuring Vocational Behavior, (7) Approaches for Providing Occupational Information and Orientation.

The publication documents the fact that a substantial body of data is available for educators who are seeking direction in the implementation of career development programs. The aim was to compile an implementation-oriented resource to be used by all manner of educational personnel. The publication may be obtained free of charge upon request to Mr. Robert K. Gray, Research and Development Unit, Vocational and Technical Education Division, 405 Centennial Building, Springfield, Illinois 62706.

THE MERCK VETERINARY MANUAL, Merck and Company, Siegmund, O. H., Editor, Rahway, New Jersey, 07065, Third Printing 1970. pp. 1686, Price—\$9.75.

The Merck Veterinary Manual is published with the objective of supporting the latest and best in the several related disciplines and arts that make up veterinary medicine. More than 290 leaders in veterinary medicine and allied animal sciences contributed to present the most current information on diagnosis and treatment. The manual contains 452 principal chapters. The chapters are divided into 20 sections, each of which is marked with a thumb index.

The primary objective of the manual is to provide the veterinarian and his co-workers in the animal sciences with a concise, convenient source of up-to-date information on the diagnosis, treatment and prophylaxis of important animal diseases.

This very complete and well written manual should be a "must" for every vocational agriculture department library.

Guy E. Timmons, Professor
Michigan State University

Industry Honors Contributions To Food Production

*Rich G. Hansen
Geigy Agricultural Chemicals
Ardsley, New York*



Dr. Appleby, Associate Professor of Farm Crops at Oregon State University, Corvallis, is the outstanding teacher award winner of the Weed Science Society of America. A member of the OSU staff for seven years, Dr. Appleby teaches both graduate and undergraduate courses in weed control and herbicide science. Many of his former students have gone on to accept teaching responsibilities at major universities or employment with leading agricultural chemical manufacturers.

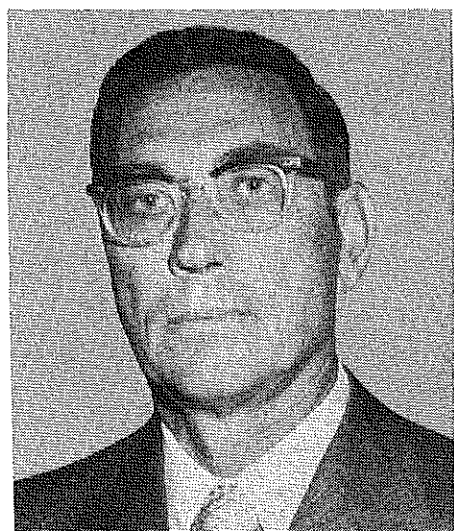
Two scientists and two educators were the last of eight Geigy Recognition Award winners to be selected for 1971. The annual presentations honor contributions to agriculture and food production.

One member from each of eight leading professional societies is honored annually. Each receives a specially designed bronze trophy of a corn seedling symbolizing our abundant food production system and is a guest of Geigy Agricultural Chemicals for a 10-day tour of agricultural research facilities and farms in Europe.

The last four winners were Dr. Arnold P. Appleby, Weed Science Society of America; Dr. Ronald E. Doersch, American Society of Agronomy; Oliver R. Hamrick, Jr., National Association of County Agricultural Agents; and Donald Kabler, National Vocational Agricultural Teachers' Association.

The first four 1971 awards went to Barney Arnold, National Association of Farm Broadcasters; Claude W. Gifford, American Agricultural Editors' Association; James R. McGuire, Newspaper Farm Editors' Association; and Dr. O. H. Graham, Entomological Society of America.

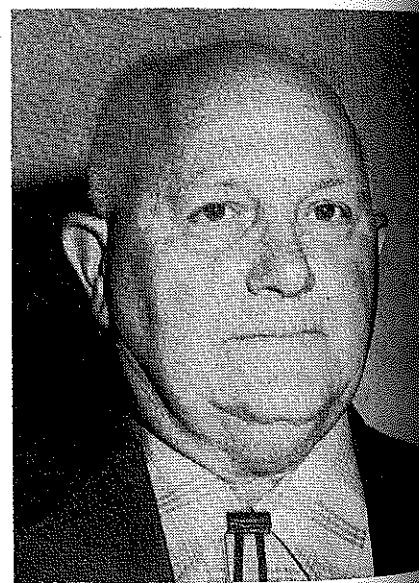
Each was honored at his organization's recent annual meeting. The individual associations set their own criteria for picking their winner and assign a committee to perform these duties.



Mr. Hamrick, County Extension Director in Madison County, Florida, for the past 20 years, was recognized for his total extension program and active participation in his professional association. A Florida native, he was a vocational agriculture instructor before joining the Extension Service in 1950. His primary area of interest and responsibility is to assist peach growers with production and marketing and encourage growers to increase peach acreage.



Dr. Doersch, Associate Professor of Agronomy and Extension Agronomist at University of Wisconsin, is the American Society of Agronomy's outstanding young man in education and agronomy service. As extension agronomist, it is Dr. Doersch's job to translate current weed control research data into practical crop production guidelines. When research data is unavailable, he conducts field trials in search of solutions to pressing Wisconsin weed problems.



Mr. Kabler, vocational agriculture instructor at Vernonia High School in Oregon, was honored for his long and distinguished career as a teacher and many contributions he has made to vocational agriculture. A vo-ag teacher for 30 years, he has taught in several schools throughout the state and has been in Vernonia four years. He is currently a member of the Oregon National Education Association as well as the local Lions and Grange.



up of leaders in agribusiness and educational fields who are concerned with future agricultural manpower and training requirements that serve Florida's multi-billion dollar agribusiness. The committee was established by the Department of Education in order to involve industry leadership in planning and developing agricultural education programs in the high schools, area vocational technical centers and community colleges.

The need for advice from experienced personnel in the agricultural industry has long been realized. Under the leadership of the State Director of Agricultural Education and the Agricultural Teacher's Association a new committee was organized in 1966 and has become a valuable asset to Agricultural Education.

The statewide committee is made up of representatives from various segments of the agricultural industry: Forestry, Agricultural Machinery, Ornamental Horticulture-Turfgrass, Agricultural Services, Livestock and Poultry, Citrus Growing and Processing, Vegetable Crops, Field Crops, and Marketing as well as cooperating agencies and a district superintendent. Each member serves as chairman of a subcommittee which is made up of several representatives from various agribusiness industries.

Working closely with the Florida Department of Education and agribusiness, the committee helps to evaluate and determine the needs in various agribusinesses. Upon the advice and recommendations of the committee, a realistic educational program has been instituted and maintained.

Florida Agribusiness Leadership Gets Involved

*W. R. Jeffries
Assistant Administrator
State Department of Education
Tallahassee, Florida*

One of the major concerns of this committee is to assist in the establishment of practices which will keep programs realistic in the light of skills and knowledge required in the rapidly changing agribusiness industry. Because committee members have the essential, specialized knowledge of competencies required, they take an active part in verifying course content. The committee also helps in determining whether or not the programs currently offered in local areas relate to future needs.

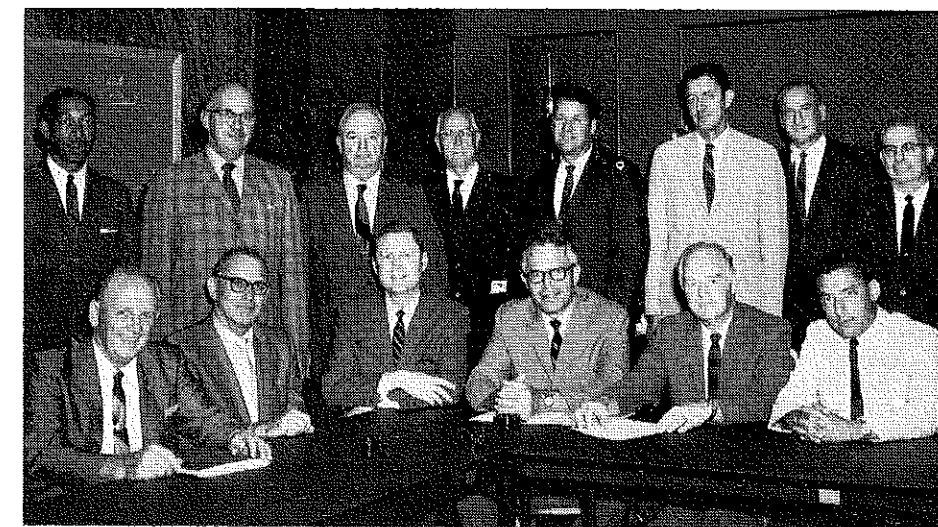
Leaders in Florida agriculture and education feel that with a comprehensive career education program, more interest can be generated at an early age and that the student will become more interested in occupational opportunities in agribusiness. They also feel that agricultural courses offered and directed by leading agricultural educators will encourage students to continue their education in Florida and seek employment in the industry.

Already, some top-notch personnel have been recruited as a result of recommendations of the advisory subcommittee for Ornamental Horticulture-Turfgrass. The recruitment of

qualified teaching staff is one of the most important factors in planning and implementing an outstanding program. One example is the Landscape and Golf Course Operation Programs at Lake City Community College that received the assistance of the committee in locating qualified teaching personnel with industry experience. The committee also worked with curriculum development and establishing the support of the industry.

With the advice and recommendation of the Forestry subcommittee and joint planning with the Division of Forestry, new programs in Forestry in the high schools, area vocational technical centers, and community colleges have been instituted. As a result of many hours of dedicated work of the Ornamental Horticulture-Turfgrass committee, job titles, descriptions, and analyses have been developed for the first time for occupations from semi-skilled to the professional level.

One primary function of the Advisory Committee is to assist in the selection and placement of students in training stations within the industry. Members of the committee believe that



Members of an Agricultural Education Advisory Committee and State Staff Members, June 1970.

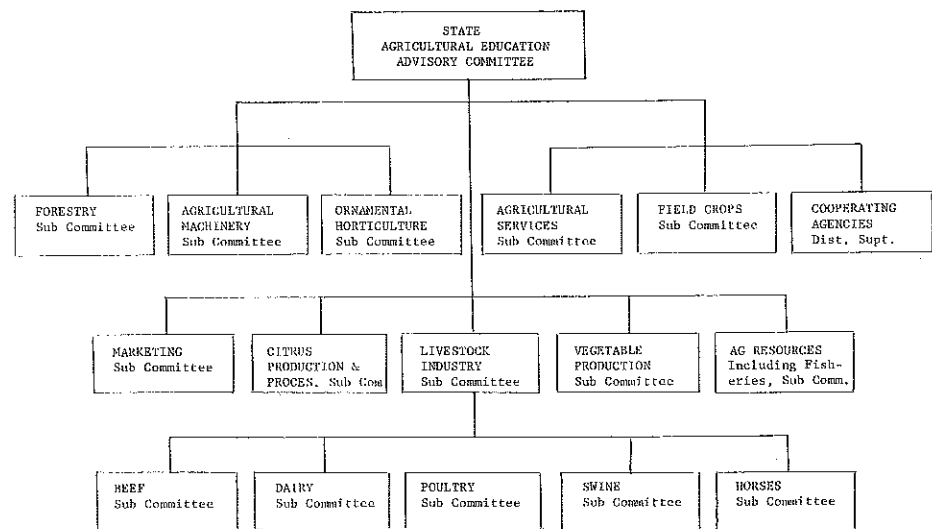


Figure 1. Organizational Chart of the Florida State Advisory Committee for Agricultural Education.

on-the-job experience in the industry should be a required part of the instructional program. They have also assisted in locating leading industry personnel to conduct seminars on the community college campus and in industry.

The committee has assumed a major

role in *Florida Project Agriculture*, a project designed to conduct a comprehensive statewide study to determine the nature and extent of educational needs associated with employment opportunities in the total agricultural industry. The primary functions will be to: (1) Acquaint their respective

Integrating Curriculum with Industry Needs



Janesville, a school district of 50,000, has less than 50 full-time farmers with school children in K thru 12th grade. Obviously the traditional agriculture program needed change.

What kind of agriculture program for Janesville? With many local agri-businesses in Janesville, a need existed for "off the farm" training. What kind of program would attract quality urban boys and girls with a genuine interest in agriculture? What about the students from farms who want farm training? I certainly do not have the answers to these questions, but this is the program that has been started in Janesville.

Bernie Staller
Parker Senior High School
Janesville, Wisconsin

Course of Study

The entire course of study at Janesville has been agri-business oriented.

		Even Years	Odd Years
Agriculture Survey	Biological Agriculture	Conservation Animal Science Power & Mechanics	Conservation Soils Horticulture Power & Mechanics
9th	10th	11th or 12th	11th or 12th

industries with the project objectives and procedures and provide entry for data collectors and job analysis team. (2) Assist the project staff in collecting and clustering job titles according to job requirements within each segment of the agricultural industry, (3) Project major changes in the various agricultural industries concerning manpower requirements and educational needs, (4) Provide assistance in reviewing the curricular materials developed to provide education and occupational guidance in developing programs, (5) Provide on-going monitoring of changes in manpower and requirements to assure up-to-date educational programs in agriculture at all levels.

These tasks will be accomplished through task forces organized by each member of the committee representing the major segments of the agricultural industry.

Jim Griffin, chairman of the Advisory Committee states that "it will probably be another two years before the industry will feel the full impact of the work of the committee and through committee effort we can continue to strengthen the ties between education and industry and help to bring the industry closer together."

The agriculture survey course is available to interested 9th graders at any of the three junior high schools. The entire year is devoted to student's study of himself, jobs and careers, and relating one to the other. Career testing is carried out by the guidance staff to help the student crystalize his career objectives. Numerous resource speakers and field trips enable students to better visualize job opportunities and their requirements. This program was the Wisconsin winner of the NVATA Career Orientation Award in 1970.

Students successfully completing the career orientation class may enroll in biological agriculture on the 10th grade level at either of the two senior high schools. The biological agriculture course is team taught with the biology instructor and lays the scientific basis for further agri-business study. The biology instructor handles the basic science while I relate this to practical agri-business, including farming. The audio-tutorial method of instruction is used whereby each student may progress at his or her own rate. Individual taped lessons, slide viewers, microscopes, film loops, and laboratory exercises allow students to follow their own interest at their own pace. Students who complete basic course requirements may continue into more advanced experiments or those of particular interest to the student. Some of the "extras" this course allows includes the dissection of the hen, the fish, and the reproductive tract of cattle; hormonal study of cockerel growth; bacterial test of milk, a six week soil life study and a four week plant growth study patterned after the BSCS series. Both the team teaching and the audio-tutorial methods allow flexibility in meeting the needs and interests of the individual student, a boy or girl, urban or farm.

Juniors and seniors may select courses in line with their particular interest according to the diagram. The course titles are explanatory.

Occupational Experience Programs

In all classes, 9 thru 12, students interested in farming carry on the traditional farming programs that have served vocational agriculture so well over the years.

Students interested in agri-business are placed on jobs whenever meaningful opportunities exist. Many younger students cannot be placed due to their age. Students interested in conservation, and to a certain extent horticulture

students, cannot find meaningful jobs until they acquire some training. Our attempt to solve this problem is two-fold.

First, all students not having sufficient occupational experience must complete "quarter projects" four times each year. These projects contribute 30 percent to the student's grade in agri-business. Our only restrictions on the projects are 1) the project must relate to the specific agri-business course in which the student is enrolled, 2) must relate to the student's career objectives, and 3) must be educationally sound.

Other Opportunities

The local FFA chapter provides work stations for young students, as well as conservation and horticulture students.

The FFA took over the operation of two local apple and pear orchards which together provide over 800 hours of occupational horticulture experience for interested students. The students handle all orchard operations except spraying, which is commercially done, and receive all profits. Junior or senior horticulture students may elect to operate a portion of the orchard, usually 80 trees, on their own. They do all of their own work and receive all profits. The orchard operations are supplemented with one acre of sweet corn which is sold in the city. Our plans are to add to this program with more horticulture crops.

Conservation experiences are provided thru a 51 acre soil and water conservation farm rented by the FFA. The farm is set up with contour strip crops of corn and hay. Odd areas on the farm are planted with conifer trees and fence rows with wildlife shrub. Prunings from the orchards are used to create wildlife brush piles and about 1900 hen pheasants were raised by conservation students and released on this and neighboring farms. This farm provides many hours of conservation-related activities.

Adjacent to the conservation farm is an 80 acre tract of mixed hardwoods. Ungrazed in 26 years, located on a glacial outwash and terminal moraine, and complete with small streams it provides students with unlimited conservation activity.

Conservation students may also utilize a Wisconsin Department of Natural Resources summer training program. These camps provide 240 hours of conservation work during the summer for each student.

This combination of classroom instruction, quarter projects, and outside resources; orchards, conservation farm, pheasant program, and so forth, provides the training for our urban students.

What About Farm Training

I feel that our students who desire to farm will receive quality training. They all maintain farming programs for four years, one of the best tools for farm training available. The basic science of the 10th grade will serve them in today's technical agriculture and the flexibility of the audio-tutorial methods insures the practical application of these scientific principles. The junior and senior courses in soils, animal science and shop allow students increased opportunities for specialization.

The conservation demonstration farm allows opportunities for experimentation with soil testing, fertility and population trials, insect and disease control, and similar activities.

The FFA program provides judging opportunities as it always has done. Our teams have placed 2nd, 3rd, and 11th the last two years in the meat, animal, poultry, and dairy judging in the State contest. The FFA provides leadership opportunities to both rural and urban students through creed, parliamentary procedure, and public speaking contests as well as the opportunity to hold offices.

The Results to Date

In 1967 Janesville was selected as one of the first ten pilot programs in agriculture. Since that time the enrollment has increased from 80 to 280 students. Student I.Q. has increased slightly (1½ per cent) indicating that our quality has not diminished. The program has spread from one senior high school to two senior highs and three junior high schools and increased from one instructor to three. Presently 20 girls are enrolled. Our farming programs, farm judging contest, and farm awards are better than before the new program was initiated.

While we certainly have not answered all of the questions and have not solved all of the problems in Janesville, I feel that we have a program that will work. We have a program that is relatively successful in meeting the needs and interests of rural and urban boys and girls in this rapidly urbanizing area of Wisconsin.

Vocational Education In A State Correctional Institution

Larry Myott, Program Coordinator
Weeks School, Vergennes, Vermont

Dr. Gerald R. Fuller, Chairman
Department of Vocational, Technical and Extension
Education
University of Vermont, Burlington

In a state institution serving the needs of disadvantaged children, a new program to offer the co-educational student body a vocational orientation is in its developmental stages.

This co-educational campus is the Weeks School in Vergennes, Vermont. Its court committed students come from throughout the state and currently number over two hundred. The Weeks School program is community oriented and focused upon meeting the special needs of its students in the areas of education and social adjustment. Small classes, close rapport between staff and students, group counseling, and individual counseling enhance its program. Weeks operates a State Department of Education accredited Junior High School for its grade 7, 8, and 9 students. An important part of this open institution is a high school program of cooperation with the local Vergennes Union High School. All upper grade students are transported to Vergennes Union High School as tuition students.

The program, funded under the 1968 Vocational Amendments, is set up to provide (1) a vocational agriculture course in the ninth grade, (2) the addition of a co-op type job training for older students in need, and (3) the development of an introductory course, "Orientation to Vocational Education," for ninth grade students.

The vocational agriculture program is based on the needs of agriculture and agri-business in the State of Vermont. Vo-Ag is a regular course offering at Vergennes Union High School.

Vo-ag is integrated into the regular school system and reserved for ninth grade boys and girls. In the first year seven students are participating in the on and off campus agricultural educa-

tion program. Students are gaining exposure to, and knowledge of, livestock, forestry and conservation and horticulture. In each area the emphasis is placed on a future in the field including job orientation and entry level requirements.

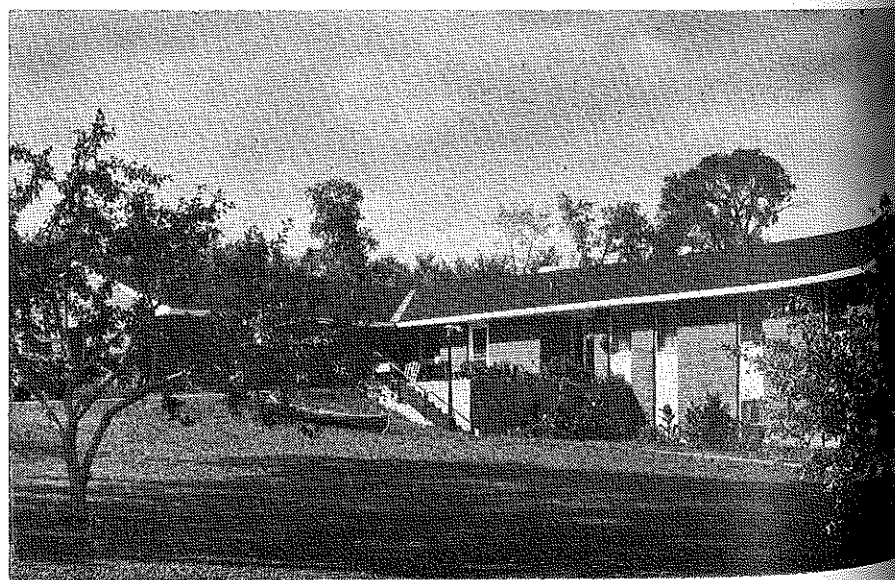
The institution's greenhouse provides a four-season under glass land-laboratory where students and projects thrive. This area of study is supplemented with the help of area florists and growers.

A large woodlot is an integral part of the school farm and provides forestry and conservation study. Plantings of the past 10-15 years are learning centers for forest management practices. The most intensely used portion of the forestry

introduction is the maple sugar orchard. The farm staff, in cooperation with the Vo-Ag and Orientation to Vo-Ag classes, produced about \$1,700 worth of fine maple syrup in 1971, a poor sugar year in Vermont. All produce is used on campus. During the sugar season, not only vocational students are involved, but as many as fifty other interested students participate on a voluntary basis in all aspects of the operation.

Completion of sugaring brings about a practicum in the apple orchard as students gain a basic introduction to fruit culture. The warm spring sunshine and hard work do wonders for the disposition and emotional stability.

Senior high school and part-time students may participate in occupational



Weeks School features open housing as is seen here in this Turrell Boys Cottage which houses 24 boys, the cottage parents and their family.

training based on the co-op concept for education. As of April 1971, nine students have participated and the first student to complete training has found employment. It is not restricted to agriculture. Programs range from service station mechanic to farm equipment maintenance to teacher aide to store clerking and farm laborer.

Training programs vary according to the individual student needs and the requirements for completion. In every



Two Vocational students grade a sample of maple syrup over the evaporator. 1971 production from 1200 taps was 213 gallons.

case local businesses are happy to cooperate and no business has given an unqualified negative response. Preliminary training is provided on the campus and related instruction takes place both on and off campus.

With the newly developing Area Vocational Center concept of Vocational Education in Vermont, Weeks' students need to prepare to enter the Area Vocational Center schools. A one semester program has begun to provide a comprehensive program of Vocational Education orientation.

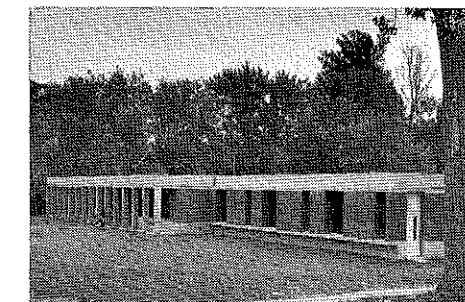
The idea is that without a knowl-



The writer of this article, Larry Myott (standing), supervises a Forestry and Conservation class during their regular summer session. Here the class is making leaf prints learning tree identification.

edge of program availability, a student cannot select a pre-vocational or vocational study. If successful, the orientation class will be offered each semester so that each ninth grade student can realize the opportunities available to him within the public school system. Approximately a week is spent on each area of vocational education. Concentration is on training facilities available with at least one experience of on-site instruction for each area.

A well planned, systematic program of vocational education can help disadvantaged pupils prepare for the world of work. Vocational agriculture combined with cooperative type education and an orientation program is working at Weeks School, a coeducational institution for court committed youth.



The Junior High School is completely co-educational with the latest equipment and excellent library facilities.

PLANNING SUMMER PROGRAMS

Editor's Note:

Although winter is approaching, this article can serve a dual purpose. First as a guide for planning your summer program for the coming year and secondly as a reminder that you should evaluate the activities of the summer just past.



up the whole world of work. It may

Vocational Education is going through a revolution that is now being generally accepted in North Carolina as Occupational Education, which includes many of the occupations that make

be described in a broad way as a four-legged table, with each leg representing one or more occupations:

- ... The production of products from soil, water and animals.
- ... Building, repairing and the manufacturing of needed goods.
- ... Processing, distribution and selling of goods.
- ... Developing aggressive leadership as well as citizenship.

The support of each occupational area

is contributing to one or more of the legs but all areas contribute to the world of work.

To do this, occupational teachers should be employed for twelve months. The Act that made vocational agricultural education possible, envisioned the need of twelve months' employment in the beginning of the program, and teachers who use the time wisely have been most effective in contributing to the social, economic and leadership

training to a large segment of the population.

In some states, some agricultural teachers' employment has been cut to less than twelve months. This has been distressing and demoralizing to teachers and others who know of the contributions that agricultural teachers have made through employment for twelve months.

It appears to the writer that administrators should view with favor the employment for 12 months of agricultural teachers who have approved activities planned for the summer.

The summer program should serve as a blueprint for the agriculture teacher by revealing what is planned for each week, and sometimes, each day. The major accomplishments should be reported each month to the principal and superintendent; and the superintendent and/or teachers should publicize newsworthy activities.

Teachers who are employed for twelve months should prepare a summer program of activities and receive administrative approval before June 1. After approval of the program, copies should be given the principal, superintendent, local vocational director, and the chairman of the advisory committee. Teachers should take into account that the superintendent, principal, local vocational director, and advisory committee are to be involved in deciding what activities the teacher includes in his summer program. The following is a program of summer activities for agriculture teachers:

1. Attend and participate in inservice educational activities
 - a. Annual Summer Vo-Ag Teachers' Conference
 - b. Workshop in such areas as:
 - Ornamental Horticulture
 - Farm Management
 - Welding
 - Tractor Repair and Maintenance
 - Insecticides and Pesticides
 - Small Engines
 - Practical Electricity
 - c. Attend Summer School for graduate credit and/or self-improvement
 - d. Attend and participate in inservice education programs.
2. Attend Summer FFA Camp with chapter members.

3. Attend FFA Leadership Schools with chapter officers.
4. Hold regular FFA meetings for members.
5. Have FFA Field Day and involve parents.
6. Plan and develop instructional programs
 - a. Make lesson plans, prepare specimens, and other teaching aids.
 - b. Obtain and organize teaching materials.
 - c. Review and up-date curriculum.
7. Evaluate programs completed previous year.
8. Supervise students' Supervised Work experiences.
9. Visit and assist Young and Adult Farmers; conduct classes.
10. Conduct agricultural mechanics instruction for community clientele.
11. Assist with Community Development Program.
12. Keep records up-to-date.
13. Repair and refurbish departmental equipment.
14. Confer with school officials on administrative problems in your program.

Many teachers have greenhouses which require considerable work, but at the same time could provide a teaching program for boys and girls, as well as others in the community during the summer. Those teachers who do not have adequate facilities need to work with the administration in getting such.

Teachers should consider establishing forestry programs at or near the school. Forestry and/or horticulture programs contribute to the elimination of pollution about which there is so much concern.

In addition, teachers should survey the basic needs of the school area. These surveys play an important part in placement and follow-up.

Where the teacher in North Carolina has been employed for twelve months, the school morale is good. The teacher is in contact constantly with the leadership in the community. Consequently, he can serve as a liaison between the administration and the people, and he can interpret the efforts being made to improve the total educational enterprise to the public.

News to Me

Enrollments in Agri-Business

The secondary enrollments in agri-business reached an all-time high of 550,822 in 1970, or an increase of approximately 14,000 over FY-1969. Of this enrollment 338,173 were enrolled in production agriculture classes and 212,650 in off-farm agri-business classes. The percentage of students enrolled in off-farm agri-business courses in 1970 was 38 compared to 30.2 in 1979 and 10.7 in 1965. —*NVATA News*

RETURN OVER FEED INDICATES PROFIT

The dollar return over feed cost and the return for \$100 of feed can show whether or not a livestock business is profitable says a University of Minnesota agricultural economist, Truman R. Nodland. Return over feed is the amount available to the farmer to pay for labor, housing, equipment, power, interest, and miscellaneous cash costs.

In dairying, farmers should receive \$200 of return for \$100 of feed in order to cover all dairying costs including a modest amount for labor. In hog production, a farmer has to receive \$135-\$140 of return for each \$100 of feed consumed by hogs to break even. In general, other classes of livestock range between these two extremes.

Dr. W. Howard Martin announced his retirement as of June 29, 1971. Dr. Martin has had an illustrious career as a leader in agricultural education. At the time of his retirement Dr. Martin was a Professor of Higher, Technical and Adult Education at the University of Connecticut. He had previously served as a teacher of agriculture and Head of the Department of Agricultural Education in his native Vermont. His colleagues will miss his creative and incisive leadership.

Secretary of Agriculture Clifford M. Hardin signed an agreement with the Future Farmers of America pledging cooperation in the Build Our American Communities program that is now a feature of vocational agriculture classes and the out-of-school program of Future Farmers.

Future of Dairying

Experts differ in their predictions for the future of the dairying industry. One USDA economist predicts dairy surpluses will decrease while a university dairy specialist thinks increased government purchases will enlarge the dairy surplus stockpile.

Recently, a leading dairy journal noted editorially that "the outlook statements by land-grant college economists, and even the USDA outlook, must be accepted with the full knowledge of the limitations under which the projections are made."

However, dairy industry experts do agree on certain points, basing their predictions on the status quo. By 1980 they expect the following changes to occur:

Half of the 400,000 dairy farms will be gone with small dairy farms practically extinct. Commercial dairy farms with sales over \$10,000 will double.

Cow numbers will decline about 30 percent to nine or 10 million with production per cow increasing by 30 percent to 12,000 pounds annually.

Number of cows per farm will triple and the average number per dairy farm will be 75.

Larger herds and increased production per cow will quadruple milk production per man from 250,000 pounds at present to around one million pounds.

The dairy industry will launch aggressive advertising, promotions, public relations, merchandising, educational and new programs. This will reduce competition from imitation dairy products and increase per capita consumption of low fat dairy products.

Films On Environment

"THIS BLOOMIN' WORLD". About man's awareness to his environment and the problem (pollution) when he becomes complacent. Both beautiful and depressing scenes in full color. 19 minutes. Available on free loan. Write to Audio-Visual Distribution, Eastman Kodak Company, 343 State Street, Rochester, N.Y. 14650.

"PEST CONTROL AND THE ENVIRONMENT." New color film produced by Cornell University's College of Agriculture. Features principles of pest control, research developments and the relation of pests to food production and environmental quality. Available for purchase or rental. For more information write to Film Library, Roberts Hall, Cornell University, Ithaca, N.Y., 14850.

"AGRICULTURE AND THE ENVIRONMENT". A new 20-minute slide presentation (68 color slides) produced by Geigy Agricultural Chemicals, explaining what agriculture has done to correct pollution problems including soil erosion, fertilizers, animal wastes and pesticides.

Available on loan-free or for sale at cost (\$15.00). Write to Vernard

Film Distribution, 113 N.E., Madison Ave., Peoria, Ill. 61602. (Geigy representatives are available to make the presentation when scheduling permits).

FAYETTEVILLE, Ark.—Dr. James A. Scanlon, Associate Professor of vocational education at the University of Arkansas main campus, will journey to Turkey in September to serve as co-director of the Seminar on Agricultural Education for West Asian Countries.

Sponsored by the United Nations through its Educational, Scientific and Cultural Organization (UNESCO), the Seminar will involve representatives from each of 12 West Asian countries in an intensive study of new educational methodology and media, with special emphasis on developing countries.

Dr. Scanlon holds a B.S. degree from Southwest Texas State, an M.Ed. from the University of Arkansas, and a Ph.D. degree from Cornell. He lives with his family in Greenland, where he serves as mayor.

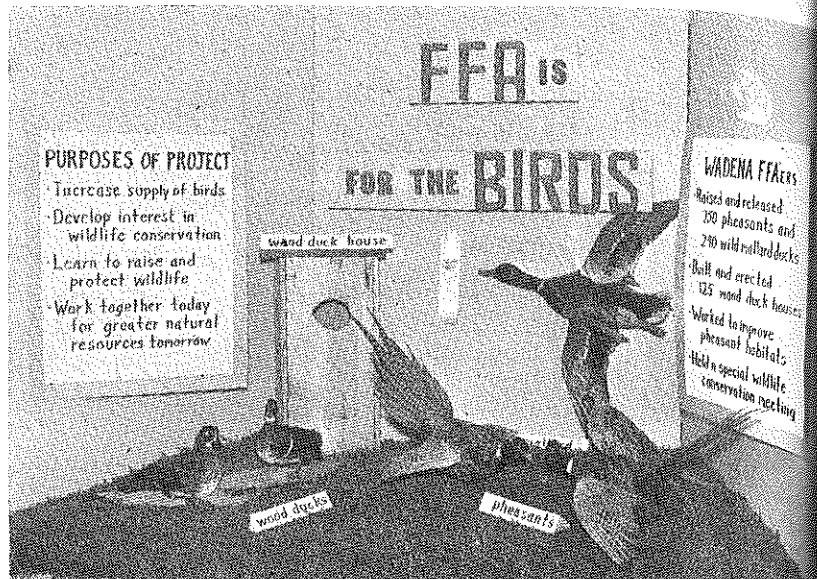
New PCA Movie Available—"Credit, A Capital Idea" is the title of the recent movie produced by PCA's as a public service. The new color film is a 13½ minute, fully animated, production on using credit profitably. Prints are available through District FICB's.

Themes for Future Issues:

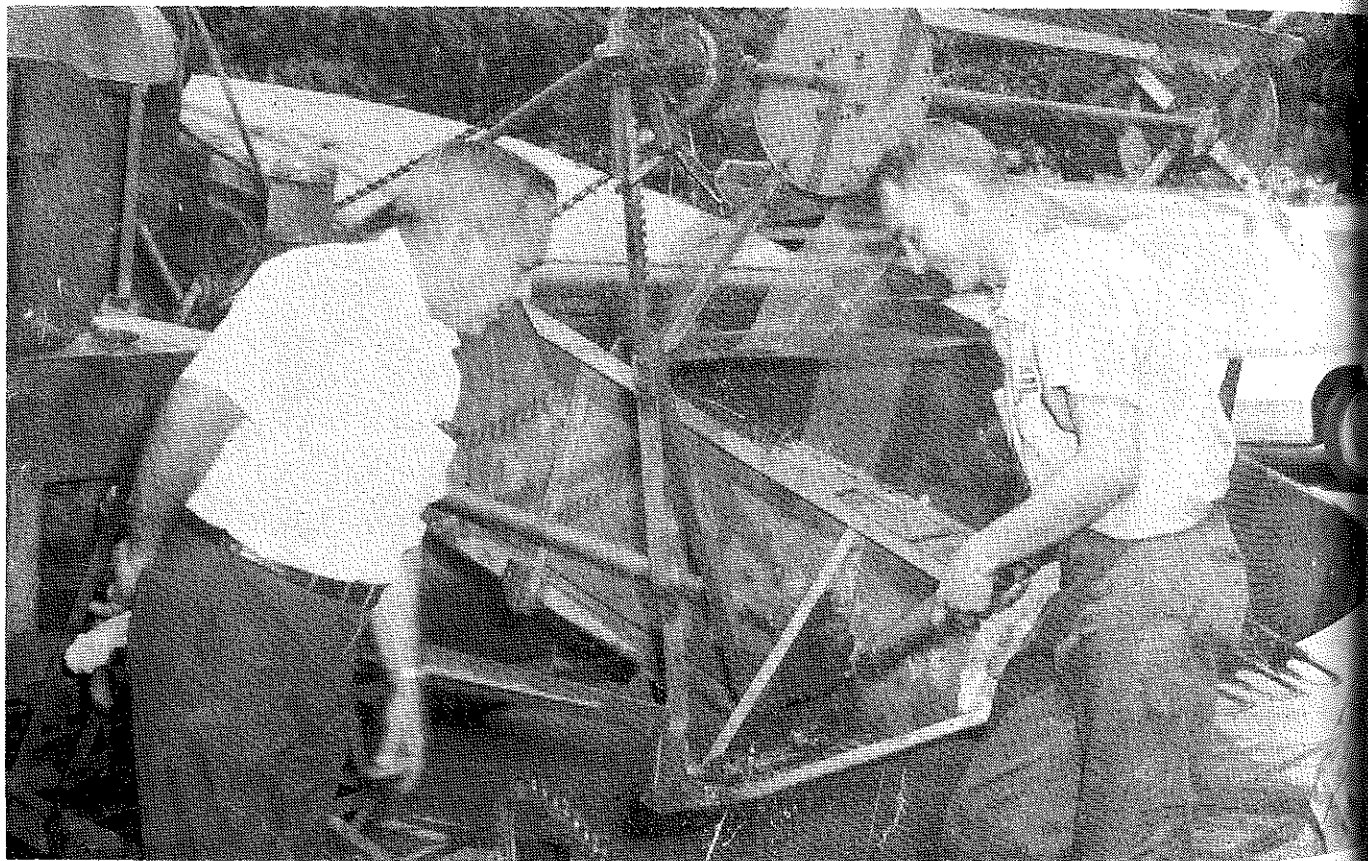
- February—The Farm Management Approach to Teaching Vocational Agriculture
- March—Competencies or Careers in Agriculture
- April—Serving the Out-of-School Group
- May—Innovations in Agriculture Education
- June—Teaching Methods

Stories in Pictures

Robert W. Walker
University of Illinois



Conservation of renewable natural resources, game and wildlife are everybody's concern. The Wadena, Minnesota FFA in cooperation with more than 140 conservation, fraternal, sportsmen, farm, agribusiness, and school groups participated in local programs. Major objectives are to preserve and improve environment, increase wildlife numbers, and work together for improved natural resources in the future. (Photo furnished by W. Kortemaki).



Charles Workman, right, a 1969 graduate of Greenbrier East High School, Lewisburg, West Virginia, shows his Vocational Agriculture instructor Nelson Dailey, how to properly lubricate a farm machine. Charles completed four years of Vocational Agriculture and one year of Agricultural Mechanics and is employed by Kyle's Garage where he does a considerable amount of farm machinery repair. (Photo by Guy E. C. Program Specialist.)