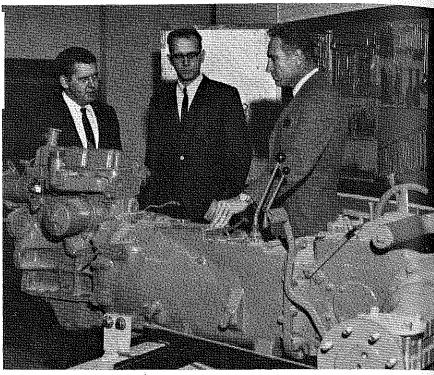
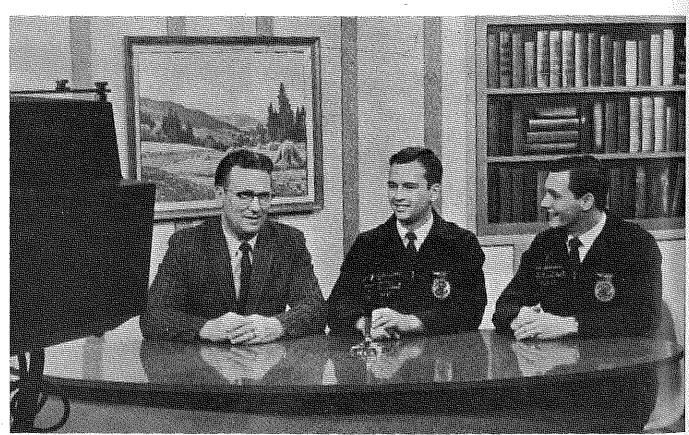
FEXINCTON KA 40206 COF OL ED A OL KA M BBACE

Stories in Pictures

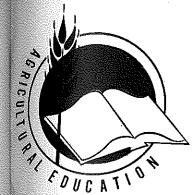
ROBERT W. WALKER University of Illinois



Troy Freeburg (center), a junior in agricultural education at the University of Wyoming, and Jim Durkee (left), Teacher of Vocational Agriculture, accept a tractor engine for the Department of Vocational Education and University High School, University of Wyoming, from Lon Covelli, Ford Motor Tractor Division. (University of Wyoming photo — Pownall)



Tom Johnson (center), Central Region National FFA Vice President, and Dan Lehmann (right), President of the Illinois Association FFA, talk with Lloyd Ummel, Farm Director for WCIA-TV, Champaign, Illinois, about vocational agriculture and the FFA. (Photo by Ronald Scherer, University of Illinois)

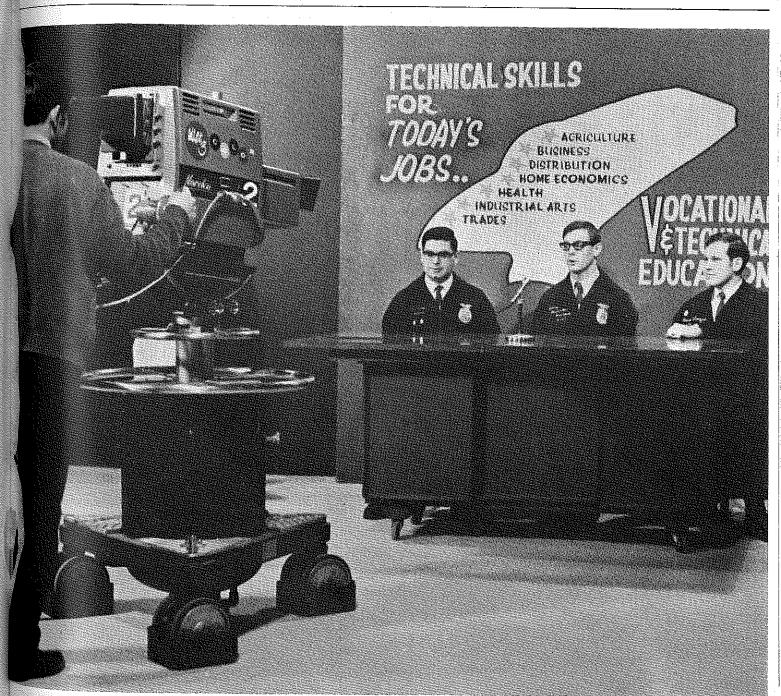


Agricultural Education

Jume 41

June, 1969

Number 12



Featuring —

PUBLIC INFORMATION PROGRAMS

AGricultural

EDucation

MAGAZINE

Vol. 41 June, 1969 No. 12

MANAGING EDITORS

J. Robert Warmbrod, Editor, The Ohio State
University, Columbus, Ohio, 43210.
DOYLE BEYL, Business Manager, Board of Vo-
cational, Technical and Adult Education,
Madison, Wisconsin, 53703.
CAYCE SCARBOROUGH, Consulting Editor, North
Carolina State Tiniversity Raleigh 27607

SPECIAL EDITORS

REGION I - PHILIP EDGECOME, University
of Massachusetts, Amherst, 01002.
REGION II — CHARLES C. DRAWBAUGH,
Rutgers - The State University, New
Brunswick, New Jersey, 08903.
REGION III - CHARLES I. JONES, North
Carolina State University, Raleigh, 27607.
DECTON IV Change Windship University

REGION IV — GEORGE WIEGERS, University of Tennessee, Knoxville, 37916. REGION V - John F. Thompson, University

of Wisconsin, Madison, 53706. REGION VI — RAYMOND AGAN, Kansas State University, Manhattan, 66502.

CARL HUMPHREY, State Department of Education, Jefferson City,

Missouri, 65101.
REGION VII — JAMES C. ATHERTON,
Louisiana State University,

Baton Rouge, 70804.
REGION VIII — DWIGHT KINDSCHY, University of Idaho, Moscow, Idaho, 83843. MAX AMBERSON, Montana State University, Bozeman, Montana, 59715. REGION IX — E. M. JUERGENSON, University

of California, Davis, 95616.

Books - GERALD R. FULLER, University of Vermont, Burlington, 05401

NVATA — JAMES WALL, Box 4498, Lincoln, Nebraska, 68504. Post-Secondary - Howard Sidney, Agricultural and Technical College, Cobleskill, New York, 12043. Research - GEORGE O'KELLEY, University of Georgia, Athens, 30601.

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

The professional journal of Agricultural Education. A monthly publication managed by an Editorial Board, Publication office at The Lawhead Press, Inc., 900 East State St., Athens, Ohio 45701.

EDITING-MANAGING BOARD

RALPH A. GUTHRIE, Illinois Board of Vocational Education, Springfield, Chairman; HOWARD H. CHRISTENSEN, University of Nevada, Reno, Vicechairman; CAYCE SCARBOROUGH, North Carolina State University, Raleigh, Secretary; MARTIN L. MITCHELL, New Hampshire Department of Education, Concord; George H. Hurt, Texas Education Agency, Austin; Doyle Beyl, Wisconsin Board of Vocational, Technical and Adult Education, Madison; J. ROBERT WARMBROD, The Ohio State University, Columbus; R. W. Montgomery, Auburn University, Auburn, Alabama; Neville Hunsicker, U. S. Office of Education, Washington, D. C.; William G. Smith, East Brunswick, New Jersey; GLEN D. McDowell, Pikeville, Kentucky; SAM STENZEL, Russell, Kansas; JAMES WALL, Lincoln, Nebraska.

TABLE OF CONTENTS

Editorials	
How Others View Vocational Agriculture	287
Public Information: Whose Responsibility?	287
What Did You Do All Summer? Delmar Johnson and Avery Gray	289
A New Approach to an Old Image Problem Alfred H. Krebs	290
Summer Activities of Teachers Earl Wineinger	292
A State Program of Public Information Jerry T. Davis	293
The Overhead Projector: A Time-Saver for Teacher	
Donald S. Heaney	294
Recruitment Efforts Show Results Ralph J. Woodin	296
Do We Hear What the Public Has to Say? J. C. Atherton	298
Barren Walls or Eye Appeal Keith Carlson	299
Students Present Public Programs Page Bakdrich	300
Modern Programs Demand Modern Public Information Activities Larry H. Erpelding	301
Book Reviews	302
Students Build Facilities Kenneth W. Milligan	
Young Farmers: A Dilemma — A New Direction E. M. Juergenson	
News of the Profession	305
Advisory Committee, Agricultural Education Division, AVA	
News of NVATA	100
Stories in Pictures	308

Subscription price, \$3 per year. Foreign subscriptions \$3.25. Student subscriptions in groups one address, \$1 for October-May. Single copies .50 cents. In submitting subscripions designate new or 18 newal and address including zip code. Send all subscriptions to Doyle Beyl, Business Manager, AGRICULTURAL EDUCATION MAG. AZINE, Box 5115, Madison, Wisconsin 53705.

Articles and pictures should be sent to the Editor or to the appropriate Special Editor.

Second-class postage paid at Athens, Ohio.

EDPRESS

Editorials

From the Editor ...

How Others View Vocational Agriculture



"One-half of all shop students in the United States are plugging away at home economics and agriculture—hardly critical crafts . . ." (Time, July 19, 1968). This comment rather clearly indicates the image of vocational agriculture and vocational education held by a writer for a prestigious weekly newsmagazine. We in agricultural education claim that such a statement describes outdated and outmoded concepts of vocational education in general and vocational agriculture in particular.

Vet the understanding of vocational agriculture portrayed by this statement is not greatly different from what others have to say about our program. For example, note how an economist questions the degree of emphasis given agricultural education in the total program of vocational education.

In 1962 . . . vocational agriculture accounted for roughly a third of the enrollment in and expenditure for federally supported vocational education programs (excluding home economics). In view of the fact that agricultural employment has been declining, not only relatively but absolutely, for a long time this degree of emphasis on training for agricultural jobs hardly seems rational. (Alice M. Rivlin. *Critical Issues in the* Development of Vocational Education. The Brookings Institution, Washington, D.C.)

Another economist admits that vocational education in agriculture is changing, yet he is heartened by the percentage decline in enrollment in agriculture relative to other offerings in vocational education.

The critics note with alarm that the absolute enrollments in home economics and agriculture continue to expand . . . Others can take comfort in the significant percentage decline in agriculture relative to other program offerings. The decline in agricultural enrollment . . . may be construed to be especially heartening.

In fairness to vocational agriculture, it should be noted that . . . there is an increasing concentration in such specialized courses as farm mechanics, forestry and conservation, and "agri-business," departing substantially from the traditional farm orientation . . . Although one cannot condone, one can understand the wish of educational specialists to maintain a toehold in their traditional domain. (Gerald G. Somers. "The Response of Vocational Education to Labor Market Changes." Vocational Education, a supplement to the Journal of Human Resources, Volume III, 1968.)

(Continued on next page)

Guest Editorial . . .

Public Information: Whose Responsibility?



Decisions are generally based upon known facts. Battles have been lost because not enough pertinent information was available when needed. Vocational agriculture has lost some battles in the past half century that could be attributed to a lack of public understanding.

A 1969 picture of vocational agriculture would tend to reflect the rewards of our efforts in public information programs in the states. People who never see the storm clouds rising generally get wet, while

others anticipate storms and are better prepared for inclement conditions. A public information program could be likened to an umbrella, it doesn't solve all of the problem but it covers most of the area. Vocational agriculture has accepted for too many years the idea that public relations Is everybody's job. Everybody's job is no individual's re-

Leon W. Boucher, Associate Professor of Agricultural Education at The Ohio State University, is a member of the Public Information Committee of the American Vocational Association.

sponsibility unless some organizational framework is identified and an action program is implemented on a statewide

At the first national public information institute for vocational and technical education personnel conducted in Atlanta, Georgia, in 1967 it was reported that twelve states employed public information specialists for vocational education. Can we assume the other thirty eight states have some plan of action with delegated responsibility for public information? What does the public understand about vocational agriculture? Have the states conducted research relating to the image of vocational agriculture? The publics are generally told what they should know about vocational agriculture. Seldom do the tellers find out what is already known or misunderstood by the publics concerning this part of education. With the aid of computor technology, states should devote some research effort to ascertaining the publics' understanding or misunderstanding of vocational agriculture and plan information programs accordingly.

A fair hearing would be difficult to achieve unless the revised story was told. Too many are using too much of the terminology characterizing 1928 agriculture. Expanded pro-

(Continued on next page)

From the Editor . . .

has been broadened, maintain that the findings of an seventies is the story the publics should be receiving. analysis of 1960 data still exist.

. . . a reasonable question is whether the decline in farm occupations has been accompanied by changes in the number of young persons enrolled in vocational programs that provide training for farm occupations.

In 1963 these legal requirements were modified to permit greater flexibility in the content of vocational agriculture education . . . Although the scope of the program has been broadened, we believe the basic relationship shown in the 1950-1960 data still exist . . . It appears that enrollment in vocational agriculture was not particularly sensitive to fluctuations in employment opportunities.

. . . although the data tell us nothing about the benefits of vocational agriculture education to the student, or about the transferability of the training to other occupations, they do suggest that, in 1950 and 1960, there were many more young men enrolled in vocational agriculture classes in high school than could expect to find employment in farm occupations for which the training would be specific and which would be economically rewarding. (James D. Cowhig and Calvin L. Beale. "Vocational Agriculture Enrollment and Farm Employment Opportunities." The Southwestern Social Science Quarterly, March 1967.)

What are the implications of these statements for public information programs in agricultural education? Why do apparent misunderstandings about the nature and purpose of vocational agriculture persist? Are we failing to describe agricultural education accurately and completely? Are persons outside the profession ignoring or misrepresenting the facts? Regardless of how we answer these questions, the fact remains that persons outside the profession frequently do not see vocational agriculture as we see it. What should be our response to what we consider to be blatant misunderstandings of the nature and purpose of vocational agriculture?

From many possible responses, I propose two are especially appropriate. One is that we write in the same publications and speak in the same forums as they do. We must take the initiative to achieve this, and we must be prepared to defend our position for what we say or write by way of clarification or rebuttal will not go unchallenged.

Another appropriate response is to insure that valid and reliable data about vocational agriculture are available. If appropriate data and information are not presently being collected, we must see that they are. It is particularly important that valid data be made available to persons outside the profession who make analyses of programs similar to the appraisals of vocational agriculture quoted. The primary responsibility for insuring that complete, accurate, and valid data and information about agricultural education are made available rests with the profession. We have abdicated this responsibility too long to federal and state agencies.

Our response to appraisals of vocational agriculture such as those quoted should be made with the clear understanding that the statements are made by knowledgeable persons. We do ourselves or the profession little good if we respond assuming that they have an ax to grind or that they are trying to scuttle vocational agriculture. We must remember that they see vocational agriculture from a different perspective. Could it be that they are simply drawing some rather plausible conclusions from the available data and information about vocational education in agriculture?

288

Guest Editorial . . .

Still other economists, noting that vocational agriculture grams of vocational agriculture to meet the needs in the

Whatever the present image of vocational agriculture persons in the program have made it so. Is vocational agriculture getting a fair hearing in the market place of public opinion? What is being said is directly proportional to what is known about the program.

A public information program should be planned, organ nized, staffed, coordinated, budgeted, and evaluated. A chain is as strong as its weakest link. Which link of the program is missing or in need of repair?

Most states have failed to staff a position of public information coordinator. This void negates progress in many of the other functions of a program. Teachers are where the action is; they have the story to tell the public. Their stories cannot reach the many publics without some organized and coordinated efforts.

Every state director of vocational education should have a public information officer on the staff. This person could coordinate the efforts of the information specialists of each of the vocational education services in the state. The information specialist would be appointed by the state supervisor of the service and would be allotted sufficient time for this important aspect of the total program.

The information specialists of each vocational service could secure through the teachers organization of that service representatives to serve on a public information committee. The teachers committee would be responsible for identifying. organizing, and implementing a public information program for the state for that particular service with the help of the public information specialists and public information officer

Some suggestions for public information activities for vocational agriculture include:

- —A monthly newsletter to teachers, administrators, legislators, congressmen, and other state supervisors and teacher
- —A speakers bureau composed of one or more teachers per county to speak on local service club programs. One state reported over 30,000 persons hearing the story of vocational agriculture through the speakers bureau.
- -Develop promotional brochures needed for explaining opportunities in expanded programs.
- —Arrange for radio, television, and news coverage of special events such as the state FFA banquet, state teachers conference, state FFA Week, and awards presented within
- -Plan and conduct an evaluation program. Secure public opinion in order to measure the effectiveness of the public information program.

THE COVER PICTURE

Television programs are an important public information activity in Mississippi. Bobby Stokes, Jerry Alexander, and Louis Hogue (left to right), officers of the Mississippi Association FFA, describe vocational agriculture in Mississippi. (Photo supplied by Larry Hoque, Mississippi Department of Education)

-JRW

WHAT DID YOU DO ALL SUMMER?

DELMAR JOHNSON and AVERY GRAY Supervision, Indiana Department of Public Instruction

How many of your fellow teachers, your administrators, or people in your community ask, "Well, what did you do all summer?" How do you answer the question? Do you really have a clear picture of what you should accomplish? Do you have a plan? Do you evaluate the success of your summer program?

Perhaps the key question is: What are you doing to inform the community about your summer program? Perhaps too many teachers are just "visiting."

WHY THE SUMMER PROGRAM?

A teacher of vocational agriculture is employed for twelve months because of the need for instruction the yearround. The summer program is an important phase of a program of vocational agriculture. It offers many opportunities for a teacher to do an effective job of supervision and teaching on the farm, on school land laboratories, in the school greenhouse, or on the job in local business firms.

Everyone affected by the summer program should help in planning the program. In reality, however, the teacher with the help of the advisory council and the school administrators must complete the final plans.

WHAT IS PLANNED?

A well planned program of work for the summer provides a basis for an effective instructional program for high school students, young farmers, and adults. Summer is also the time to visit Prospective students and their parents, train FFA officers, secure and file new reference materials, revise long-time programs, prepare course calendars, and make lesson plans and agriculture mechanics laboratory plans. The teacher also secures needed equipment and supplies and orders magazines and books. In order for a vocational agri-

culture teacher to perform these and the many other duties, it becomes necessary for him to do a good job of planning the summer program.

GUIDELINES FOR PLANNING

We find the following list of activities helpful to teachers in planning and evaluating the summer program of work. For each of the activities listed, the teacher should record what is planned and what is accomplished. For example, for the activity "visiting regularly enrolled high school vocational students," the following information should be recorded: number of students enrolled, proposed number of teaching visits per student, total number of teaching visits, approximate length of each teaching visit, approximate total hours required, and number of days needed for on-farm teaching.

Directing the High School Phase of Vocational Agriculture

- -Visiting regularly enrolled high school vocational students
- -Visiting prospective high school students
- -Meeting with and preparing for the advisory council
- —Directing the activities of the FFA

Directing the Adult Phase of Vocational Agriculture

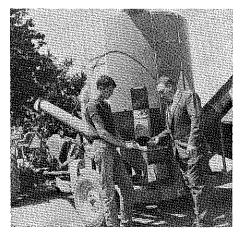
- -Visiting enrolled adult or young farmers
- —Visiting prospective adult or young

Preparation for Teaching High School and Adult Classes

- —Preparing lesson plans
- —Preparing teaching aids
- -Preparing courses of study
- —Collecting materials
- -Checking, repairing, and inventorying equipment



Bill McVay (left), teacher of agriculture at South Whitley, Indiana, instructs a farmer in tissue testing during the summer.



edward Smith (right), vocational agricultureteacher at Hagerstown, Indiana, checks the ration prepared by a student during the

- -Preparing orders for needed supplies and equipment
- -Conducting and summarizing surveys or studies
- -Filing and storing materials
- —Duplicating educational aids
- -Study the individual records of students

Professional Improvement and Public Relations Activities

- -Attending technical agriculture field days and workshops
- -Attending graduate courses for professional improvement
- -Attending teachers' conferences and other professional meetings
- -Informing the public and adminis-

Vacation

- -Number of days for vacation
- -Percentage of total time for vacation

A New Approach to an Old Image Problem

ALFRED H. KREBS, Teacher Education Virginia Polytechnic Institute

sive to "buy" from the standpoint of

time and magnitude of effort required.

We in agricultural education will have

We love to talk about "the good old days" when, as teachers of agriculture, we knew all the school board members and enrolled the sons of all the local power structure figures in vocational agriculture. Our special public relations efforts in those "good old days" were highly successful largely because they were undergirded by an excellent program which touched the lives of a high percentage of the population and of the power structure. The problems of vocational agriculture today should be lesson enough that a new day has dawned. A new approach to the public relations task is essential. Under the leadership of AVA Agricultural Education Division President Ralph Bender, and with the active support and assistance of the AVA staff, that needed new approach has been born.

A New Approach

The new approach focuses on public information rather than on public relations. It is based on the premises that we have for too long been talking only to persons who didn't need to be convinced about the value of the vocational agriculture program, that hard facts about the vocational agriculture program are needed to convince those who "just don't know" that the program is valuable, that the public information effort must be a continuing effort, and that the effort is too expen-

serves as Chairman

of the Public Infor-

mation Committee

of the Agricultural

Education Division,

American Vocation-

al Association.

Alfred H. Krebs

portance sible whe portance sible whe cational agriculture dot convince those now" that the public insust be a continuing effort is too expensions and the converse of the con

to do it ourselves.

To tackle this task, President Bender appointed a working committee of three persons representing the vocational agriculture teachers (NVATA), the state supervisors (NASAE), and teacher educators (AATEA), plus several consultants. The task of the committee

To provide leadership and coordination in securing, preparing, and disseminating information regarding agricultural education.

was defined as follows:

The program originally outlined was modest. The committee planned to promote the preparation and dissemination of various kinds of publications about vocational agriculture and to attempt the compiling and dissemination of hard data about the vocational agriculture program. It is the second idea that has received the greatest attention to date. It appears to contain the promise of providing for vocational agriculture a service of far greater importance than was even dreamed possible when the committee was formed.

Vo-Ag Facts

Basically, the "Vo-Ag Facts" idea is extremely simple in design and execution. Each state has been asked to designate a public information committee with the chairman responsible for working with the national committee. The state committees, under the guidance of the national committee, are to assemble and send to the national committee facts about the state vocational agriculture programs. The national committee is to process the facts received, duplicate them in the form of a fact sheet, and mail the fact sheet to the states. The state committees then mail the fact sheets, containing information about the home state and

other states, under their own covering letter, to all state persons who should get them — state advisory committee members, national legislators, state legislators, news media personnel, agricultural leaders, and major public school personnel. Not only should this help keep the persons on the mailing lists aware of the contributions made by the vocational agriculture program, but it should provide them with facts useful in preparing speeches. These persons should also learn that the program is effective nationally as well as in their own state.

As the idea began to blossom, some possible by-products of the effort took shape. One possible by-product of the effort could be a periodic "Vo-Ag Fact Book", a compilation of all facts processed in a particular period of time. With facts classified by states, an interested person would have little trouble locating information of most interest to him. A second possible by-product could be having available for members of the profession who need to testify before Congressional groups upto-date information about various aspects of the vocational agriculture program.

Team Effort

Although the vo-ag fact idea is simplicity itself in design with a farreaching value potential, it can succeed only if teachers, supervisors, and teacher educators work as teams with their state public information committees to provide the information and to duplicate and disseminate the "Vo-Ag Facts" to persons in their states. As the project grows, financial support beyond that provided by the AVA will also be needed. If properly supported, the project can generate a kind of up-10date data bank about the vocational agriculture program never before available on a national scale. The result should be a far greater understanding of and appreciation for the vocational agriculture program and a general strengthening of the agricultural education profession.

Although the vo-ag facts idea is the project receiving greatest attention from the Public Information Committee of the AVA Agricultural Education Division, other projects designed to acquaint non-agricultural educators with agricultural education are being developed. The focus for each project is on creating an informed public. The effort is national in scope and it must include all in agricultural education to be successful. State committees will be asking all in agricultural education for help.

This new approach to the public image problems of agricultural education to fit the changing socio-economic and educational scene is long overdue. With just a little effort by all, agricultural education—vocational agriculture—can remain an important part of that educational scene.

ARTICLES ABOUT VOCATIONAL AGRICULTURE

The Christian Science Monitor recently published a series of articles describing the broadened program of vocational agriculture. The series of articles appeared in ten consecutive Saturday editions beginning on January 4, 1969. The articles under the general title, "Farm Boy Quits the Dell," were written by Dorothea Kahn Jaffe, staff writer for The Christian Science Monitor. Topics of the ten articles are:

- —A new crop of skills
- —Vo-ag courses open doors for farm youth
- -Forest is farm boys' classroom
- —Conservation taught from a plane
- But more teachers are needed
- -Youths need skills
- —Canada updates vo-ag courses
- -Urban youths study agriculture
- Practice farm work leads to city jobs
- Vo-ag's message: Young man, the land still needs you

VO-AG FACTS*

Of the 105,930 students completing high school vocational agriculture programs in the United States in 1966, 38 per cent were placed in programs of continuing education, 13 per cent entered the armed forces, 42.5 per cent were placed in jobs, 5 per cent could not be classified, and only 1.5 per cent were unemployed.

* * * *

The number of persons served by vocational agriculture programs in the United States for the period 1965 to 1967 is indicated by the following data.

	1965	1966	1967
Secondary (H. S. Students)	516,893	513,185	508,675
Post Secondary	2,054	5,390	8,093
Adult	367,287	371,989	413,454
Special Needs	1,295	556	17,436**

**12,488 of this enrollment are included in the secondary enrollment figure.

* * * ;

During 1966-67, there were 153,255 high school and post-secondary students preparing for employment in off-farm agricultural occupations. Enrollment of high school students in programs leading to employment in off-farm agricultural occupations in 1964-65 and 1966-67 are as follows.

Off-Farm Agri-Business	1964-65	1966-67
Agriculture Mechanization	7,836	39,359
Agriculture Supply	18,434	18,107
Agriculture Products (Processing)	23,136	8,652
Ornamental Horticulture	3,827	17,695
Agriculture Resources	ĺ	6,527
Forestry	2,304	6,517
Other Agriculture	,	8,580
Total	55.681	105 437

New programs to train off-farm occupations are underway in approximately 40 per cent of the 8,700 schools offering vocational agriculture in the United States.

*Prepared by the Public Information Committee, Agricultural Education Division, American Vocational Association.

Themes for Future Issues

July Policy and Policy-Development in Agricultural Education

August Guidance in Agricultural Education

September Instructional Programs in Agricultural Mechanics

October Instructional Programs in Ornamental Horticulture

November Instructional Programs in Agricultural Supplies

THE AGRICULTURAL EDUCATION MAGAZINE

SUMMER ACTIVITIES OF TEACHERS

EARL WINEINGER, Supervision Kansas State Board for Vocational Education

The value of summer program activities of vocational agriculture teachers has long been recognized. However, the increased demand on the vocational agriculture teacher's time during the summer has created many problems including a general concern as to how to provide the best vocational agriculture program during the summer months. In some schools the summer months have been poorly used or even abused by teachers. In these situations administrators question the value of summer employment of vocational agriculture teachers. Consequently, agricultural educators are justifiably being asked to clarify the importance of summer programs of vocational education in agriculture.

Features of Summer Programs

I undertook a study to identify the summer program activities of vocational agriculture teachers that were associated with the characteristics of the total vocational agriculture pro-

gram. Vocational agriculture teachers from fifty-four Kansas schools who conducted at least a two-month summer program and who had been at their current location for at least five years participated in the study.

Summer program activities which were found to be associated with the characteristics of the total vocational agriculture program included:

- -Number of summer supervisory visits per high school student with a farm experience program
- -Total number of summer supervisory visits of high school students with occupational experience programs
- —Summer farm experience program
- —Number of summer FFA chapter
- —Number of summer FFA officer
- -Attendance at state FFA camp
- -Exhibiting a local agriculture mechanics exhibit

There is no substitute for

on-farm instruction if the

teacher wants to make

teaching relevant. On-farm

supervisory visits are im-

portant summer activities

teachers.

- -Preparing for an agriculture mechanics exhibit at a state exhibit
- -Attendance at summer vocation. al agriculture teachers' conference -Number of summer news articles
- published

The following characteristics of the total vocational agriculture program were found to be significantly related to the summer program activities of

- -FFA award classification (National chapter award program)
- -Total high school vocational agriculture enrollment
- -Percentage of high school farm boys enrolled in vocational agri-
- -Percentage of vocational agriculture graduates entering an agribusiness occupation
- -Farm experience program units per student
- -Percentage of vocational agriculture graduates entering production agriculture occupations

Characteristics Not Related to

istics of teachers and schools.

- -Total years of experience of the
- ture teacher
- worth of high school students
- —Full or part-time departments
- -Percentage of vocational agriculschool educational institutions
- -Graduating institution of the vocational agriculture teacher

A State Program of Public Information

JERRY T. DAVIS, Supervision California Department of Education

the most undersold programs in secondary high schools across the nation is tues? Usually to ourselves or to our own people, the agriculturists of Amer- personally involved. ica. We know that this is an ever diminishing number and yet we continue to talk to ourselves.

we put our publications in the hands of other agriculturists. We seek help from and involve the people we know and can depend on most, those who already understand our program. In short, much of our public information program is a closed circuit mutual admiration society.

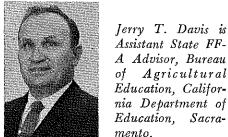
New Audiences

In California, we are expanding our public information program by applyvolvement with new ideas to reach tions man on their staff. The result

One of the most valuable yet one of new audiences. With all the new communication media available, nothing has replaced the oldest and most efthe program of vocational education ficient method — word of mouth. The in agriculture. We know its value and idea is to get more people talking continually extoll its many virtues. about a worthwhile educational pro-To whom do we extoll its many vir- gram. We find that the best way to start them talking is to get them

In an effort to capture the attention of any audience and start them talking, it is fair to use every modern At conventions and major meetings and sophisticated method available. we feature outstanding agriculturists; It is fair to draw on the talent of every person willing and able to help. It is fair to use every technique possible to keep costs at a reasonable figure. It is fair to hitch a ride on any idea that will evoke a favorable reaction. It is fair to involve everyone possible to implement your public information program. Involvement is the golden key.

Using the technique of public involvement last year, friends of our program attended our State Fair FFA Awards Breakfast. They had budgeted ing the old technique of maximum in- for TV time and had a public rela-



Jerry T. Davis

was a video-taped eight minute program on fifteen TV stations around the state. Involving programmers for one of the major networks, we were able to get students of vocational agriculture in thirty TV appearances with an estimated audience of 7,000,000 people. Work is currently being done on a half-hour movie involving student projects and their relationship to establishment in farming. The budget and talent necessary to develop the movie will again be supplied by people

Ierry T. Davis is

Assistant State FF-

of Agricultural

Education, Sacra-

mento.

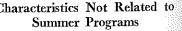
Involvement of People

involved with our program.

The use of TV, video-tapes, and movies is good but only second best to actual person-to-person contacts. The major thrust of a public information program should be toward involvement of people. We have several programs designed specifically for this purpose. One of the best examples is our project competition.

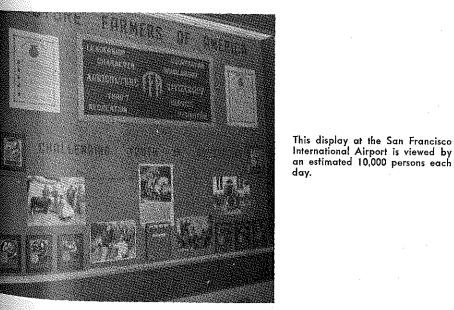
We have long realized the value of student projects in programs of vocational agriculture. The value of the instructional program reflected in the student project requirement is an easy one to communicate to the public and consequently a natural for a program of public information. Using the student project as a basis for involving the public with our program, we have

(Continued on page 295)



The summer program activities conducted by teachers were found to be independent of the following character-

- vocational agriculture teacher
- -Salary of the vocational agricul-
- -Farm experience program net
- —Area of the state
- ture graduates entering post-high



JUNE, 1969

THE AGRICULTURAL EDUCATION MAGAZINE

292

THE OVERHEAD PROJECTOR: A TIME-SAVER FOR TEACHERS

DONALD S. HEANEY California State Polytechnic College

Audio-visual aids can help reduce the teacher's load and contribute to better, more worthwhile educational experience for the student. The overhead projector is not a new audio-visual device. The armed forces used the overhead projector extensively during World War II. Recently it was discovered by educators and is becoming a very useful tool in the classroom.

The overhead projector may be considered as an extension of the chalkboard. All of the drawings, charts, definitions, and outlines a teacher uses during the year which is put on the chalkboard can be preserved on acetate transparencies and used again and again. Material added can be removed by erasing with a cloth. The use of the grease pencil, translucent pens, and pencils make this possible. It can be adapted to almost any situation arising in a classroom.

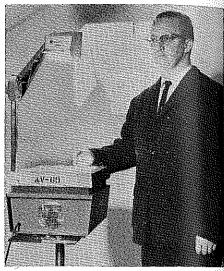
A Versatile Teaching Aid

By making a master to be used with the many different types of thermal copy machines a transparency can be made and then the masters stored for future reference, thus a lot of teacher preparation time is released to be used elsewhere. Instead of recreating on the chalkboard each time, the material taught can be put on masters and transparencies made to be used with the overhead projector. The overhead transparancy is one of the audio-visual devices which permits the teacher to use his creative ability. The teacher has the opportunity to teach the way he wants. The teacher uses the vocabulary best suited for the situation. He writes or draws an explanation to drive home an idea. Some of the other audiovisual tools are rather expensive to use. The inexpensive cost of the sheets of plain acetate, marking pencils, transparency masters, overhead projectors, and even the commercially prepared transparencies compared to video tape and 16mm colored film makes the overhead very inexpensive.

Obtaining Transparencies

There are three main methods of obtaining transparencies: First, creating your own masters and making the transparencies by using thermal copy machines or by the diazo process; Second, purchasing commercially prepared masters and then making your own transparencies; and third, you may purchase the commercially produced transparency. A number of companies are preparing materials specifically for agriculture, however, they are still few in number. The commercially prepared transparencies are quite expensive. The commercially prepared master used by the teacher to make his own transparency and the developing of your own masters and transparencies are by far the most economical. With the numerous translucent pens and pencils, tapes, and different types of acetate it is possible for the teachers to make transparencies as attractive as those commercially prepared.

Persons at Washington State Univerversity have produced transparency master sets to be used by the teachers of that state. Clemson University through their Vocational Education Media Center is doing something very similar for South Carolina teachers. Vocational Agriculture Service at the University of Illinois has a number of overhead transparency masters listed in their catalogue as does the Agricultural Education Teachers Material Center at Texas A&M University. Vocational Education Productions at California State Polytechnic College has recently published five sets of transparency masters to be used by vocational agriculture teachers.



Donald S. Heaney demonstrates the use of he overhead projector in the classroom. Dr Heaney is Agricultural Education Media Con-sultant, California State Polytechnic College, San Luîs Obispo, California.

Using the Overhead Projector

What are some ways in which the overhead projector can be used? You can supplement lectures, slides, movies, charts, filmstrips, or other audio-visual materials with the overhead just as you do with the chalkboard. However, the overhead has many advantages over the chalkboard. You face the classroom at all times, you can use color to reinforce your point, you can erase the material that has been filled in leaving the basic picture or diagram to be filled in again, and by turning the switch on and off you can control the students attention It is possible to supply motion by using a polarized wheel that is on the market.

Many teachers who use the lecture method record their lectures on rolls of acetate and then reinforce their voice visually by showing the class the manuscript word by word on the overhead projector. The student is then able to copy down what he may have

missed. The rolls can also be used with reproduction lend themselves to the sequential diagrams, charts, or whatever you want to be included in your lesson plans. They can be stored, revised, and used with other classes or in other years.

Things that lend themselves for overhead transparencies are those things which can be reduced to outlines without much detail. Examples include feaching the parts of animals, plants, and machinery. One method is to have an outline of the animal or plant and as you discuss the material with the class fill in the parts with a grease pencil or translucent pen or pencil. Another method is to use overlays, that is, other sheets of acetate that have the parts or materials on the acetate and place them over the original. The two methods can also be used with diagrams, charts, and with any of the many applications of overhead transparencies in classroom instruction. Tool, plant, and animal identification, inforcing his learning and retention. blemishes and diseases, making feed rations, anatomy and physiology, and

use of the overhead projector.

Teacher Prepared Materials

Use of the overhead projector allows the vocational agriculture teacher to develop materials best suited to his situation. When necessary, commercially produced materials can be obtained. Instead of redrawing or rewriting material on the chalkboard time and time again it is possible to make a transparency master which can be made into a transparency and then both can be stored and used as the need arises thus releasing the time it takes to put the material on the board. By using the thermal copying machine it is also possible to make a spirit master from the transparency master. You can then ditti enough copies for your class and as you make your point or fill in the information the student can be doing it to his own copy thus re-

The use of the overhead projector use of his knowledge, his subject mat-



Examples of overhead transparency master sets available to vocational agriculture teachers.

allows the teacher to make the best ter, transfer of the knowledge to the student, and his time. It can provide color and motion to a situation creating a proper learning atmosphere. It enables the teacher to obtain a file of worthwhile, inexpensive, and very useful materials. Material then can be arranged, revamped, and revised as the need arises. The overhead projector does not replace all other audio-visual devices. It does, however, highly complement them and more or less replaces the chalkboard as a more worthwhile, useable, and diversified tool.

A State Program of Public Information

(Continued from page 293)

a well developed competitive activity in which every vocational agriculture student may participate. Each school may enter four to ten students in the final competition. All projects are judged by local people to determine school finalists. The finalists then compete with other schools in their section (about nine schools) for a gold or silver rating. At the sectional level, a team of judges, including a member of the sponsoring organization, rates the projects. After projects have been judged the second time, the sponsoring organization honors all of the chapter finalists at a banquet held somewhere in the section. At the banquet slides of the projects are usually a part of the program.

Also invited to the banquet are the teachers and administrators from each of the high schools. This procedure is carried on in each of our twentyseven sections of the state. The opporfunity to involve people is great. One of the best parts of our program be-People who need to understand better our vocational program.

FFA Activities

In 1968 as part of their training in a leadership workshop, each of our regional officers wrote to his State Senator and Assemblyman and invited them to attend a luncheon as his guest. On the day of the luncheon, the officers visited the capital and observed the legislature in session. Our FFA president spoke to the legislature and received a joint resoluton from the Senate and Assembly commending the FFA. At the luncheon, the officers had an opportunity to visit with members of the legislature from their own district and acquaint them with the program of vocational education in agriculture. The expense for the luncheon was borne by friends of our program.

A recent effort in our program of public information is to achieve maximum exposure for the state officers. They make a mid-year tour of the state to visit friends of the FFA and comes a show window for many of the put on special programs when requested. They travel extensively around

banquets and conducting leadership workshops for chapter officers. Travel expense to chapter functions is paid for the requesting chapter.

Conventional methods to teach and inform the public concerning our total programs are used too. At the San Francisco International Airport, a display shows various aspects of the FFA program and their relationships to agriculture. The display is viewed by an estimated 10,000 people daily. The cost of the display is carried by friends of our program,

The idea of involvement of people to increase their understanding of the vocational agriculture program is the same idea that all successful local schools are using. It works equally well on a state level. People like to be identified with the fine youth we have in vocational agriculture. A little cooperation and guidance on our part can make a public information program that is effective. Try measuring the effectiveness of your state program of public information by the number the state speaking at parent and son of people who are actually involved.

RECRUITMENT EFFORTS SHOW RESULTS

RALPH J. WOODIN The Ohio State University

The supply and demand for teachers of vocational agriculture in 1968 could cause a politician to "point with pride" but at the same time he might also "view with alarm." He could point with pride to a 26 per cent increase in the number of teachers qualified during 1968 as compared to 1965, but he would be forced to view with alarm the fact that the number of teaching positions during the past four years has increased more rapidly than the supply of teachers.

The table accompanying the article provides information regarding the supply and demand of teachers for the 1968 school year in comparison to the previous four years. Some records were set in 1968 in number of positions in teaching vocational agriculture and the number of persons qualified. The number of new positions added during the year was the highest of any previous year. An encouraging note was that fewer replacements were required during the year, resulting in the lowest percentage of turnover of teachers than in any of the previous years.

Dr. Louis M. Thompson of Iowa State University reports that during the four-year period from 1965 to 1968 enrollments in baccalaureate programs in Colleges of Agriculture in State Universities and Land Grant Colleges increased from 41,757 in 1965 to 50,717 in 1968, representing a 21.5 percent in-

Vocational Agriculture Teaching Positions, Teachers Qualified, and Numbers Entering Teaching

	1965	<u> 1966 </u>	<u> 1967</u>	1968
Total positions	10,378	10,325	10,221	10,606
Replacements required during year	1,003	1,077	1,104	942
New positions added during year		265	232	323
Teachers needed but not available	120	162	232.	141
Teachers qualified	1,038	1,151	1,233	1,314
Number of those qualified entering teaching	671	706	742	809
Percent of those qualified entering teaching	64.6	61.4	60.2	61.6

of time, the number of students majoring in agricultural education increased even more, Agricultural education enrollments were up more than 26 per

Sources of Information

Ralph J. Woodin is Chairman of the Professional Personnel

Recruitment Committee of the Agricultural Education Divi-

sion, American Vocational Association. Dr. Woodin is Profes-

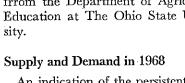
sor of Agricultural Education, The Ohio State University.

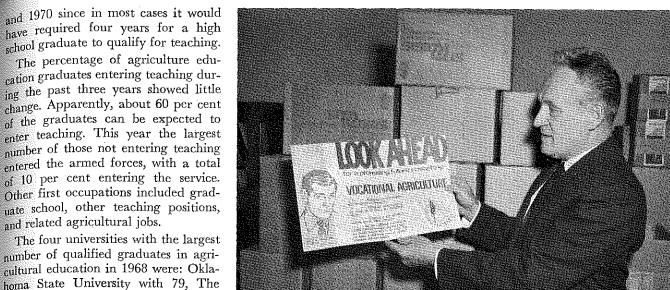
The data presented in the table were obtained from state supervisors and teacher educators in each state. Each state responded giving the number of teaching positions in the state, the number of replacements needed, the number of new and additional positions which had developed during the year, and an estimate of the number of teachers which would be needed by 1970. Teacher educators reported the number of graduates qualified for teaching and crease in enrollment. During this period the first positions assumed by those

qualified. Replies were received from 50 states and from 76 different teacher education institutions. The survey was made as of August 1, 1968, at which time most teachers had signed contracts for the coming school year. A complete report of the survey "The Supply and Demand for Teachers of Vocational Agriculture" is available frrom the Department of Agricultural Education at The Ohio State Univer-

An indication of the persistent teacher shortage is shown by the fact that on August 1 there were 141 teachers needed but not available. At that time 65 departments could not open because of the shortage of teachers. Several supervisors indicated that there would have been a larger increase in the number of new departments of vocational agriculture in their states had teachers been available.

The number of persons qualified for teaching vocational agriculture grew from 1,038 in 1965 to 1,314 in 1968, representing an increase of 276. This suggests that the recruitment effort of the past few years is beginning to payoff. A significant increase from this effort, however, should show up in 1969





A new recruitment poster which has been mailed to each teacher of vocational agriculture in the nation is examined by Dr. Ralph E. Bender, Vice President for the Agricultural Education Division of the American Vocational Association. The cartons in the background contain 12,000 copies of the poster as they were received from the printer ready for mailing from the Department of Agricultural Education at The Ohio State University, Columbus, Ohio. The preparation and distribution of the recruitment posters and brochures is a project of the Professional Personnel Recruitment Committee of the Agricultural Education Division, AVA. (Photo by Ralph J. Woodin)

teaching of off-farm agricultural occupations.

Sixty-five per cent of the teachers taught both high school and out-ofschool classes and only 2 per cent of the teachers were teachers of adult and young farmer classes only.

In terms of types of schools in which teachers worked: 94 per cent were in general or comprehensive high schools; 2.6 per cent in vocational schools; and 2.8 per cent in area, post-high school, or technical institutes. Seventy-one per cent of the teachers were in single teacher departments.

This year's survey indicates that there is no question but that a shortage of teachers still exists and that continued efforts in recruitment must be made. The goal for recruitment should be about 1,800 teachers qualified per year as compared to 1,314 in 1968. This would provide a supply of teachers sufficient to meet the current shortage and permit some selection of those who would teach. To meet such a goal requires continued effort on the part of all segments of the agricultural education profession.

Some change in the responsibilities of feachers of vocational agriculture were shown in 1968. More than one-third of the teachers taught either full time or part-time in new occupational programs in agriculture such as Agricultural Supplies, Agricultural Mechanics, Agricultural Products, Ornamental Horticulture, or Agricultural Resources. Twenty-nine per cent taught such courses on a part-time basis and nearly 6 per cent were engaged in full time

and related agricultural jobs.

Ohio State University with 56, Texas

A&M University with 49, and Texas

Technological University with 47. Tex-

as produced by far the largest number

of graduates of any state with a total

of 241 persons qualified by eight insti-

A record was set in 1968 in terms

of new positions added during the year.

A total of 323 new positions were add-

ed. Generally these new positions repre-

sent the opening of new departments

or the addition of teachers to form

multiple teacher departments. The 323

new positions do not represent a net

gain of 323 positions since some depart-

ments were probably closed during the

Among the states which added the

largest number of new teaching posi-

tions in vocational agriculture were:

Ohio with 29, Minnesota with 26, and

North Carolina and Texas with 25

each. Texas was the state with the

largest number of vocational agricul-

ture teaching positions with 1,155; fol-

lowed by North Carolina with 607.

Illinois with 518, California with 482,

and Oklahoma with 392.

Types of Teaching Positions

INNOVATIVE PROGRAMS IN AGRICULTURAL EDUCATION

Innovative Programs in Agricultural Education describes new programs in agricultural education throughout the United States. High school programs in horticulture, agricultural mechanics, forestry and conservation, agriculture and distribution, and cooperative education in agricultural occupations as well as programs in area vocational schools are described. Innovation programs are also described pertaining to programs for persons with special needs, post-high school and adult programs, and teacher education.

The publication was prepared by the Publications Committee of the Agricultural Education Division of the American Vocational Association. Copies are available at 35 cents each (10 per cent off on orders of ten or more) from the American Vocational Association, 1510 H Street, N. W., Washington, D. C. 20005.



Ralph J. Woodin

DO WE HEAR WHAT THE PUBLIC HAS TO SAY?

J. C. ATHERTON, Teacher Education Louisiana State University



J. C. Atherton

destined to spend the remainan age of zooming, continually accelprogress. The problem this presents is one of choice-remain static and be-

come obsolete in a relatively short period, or adjust continually to the situation and be a leader in the area of projection and implementation. Our destiny is tied inextricably with the reactions we make to change and to the wishes of those with whom we

Mistakes are a part of the life of most individuals who have the task of working with the public. It is most difficult to master the art of predicting the reactions of people. The program of work of the teacher of agriculture is comprehensive and quite varied. These activities range from those which are largely window dressing to the highly essential. There is a real problem that one may major on the items of minor importance and overlook largely those things which are really basic to success in the educational venture.

Listening to the Public

History tells us that the mighty Titantic sent various distress signals following its collision with an iceberg. All ships within the range of possible assistance normally race to the scene and give aid to the stricken vessel. Yet, in the case of the Titantic a ves- the more distant future. Some of the sel was only a few miles away but it pitfalls may become more obvious if made no move to offer assistance. The one's ears and eyes are attuned to reason—because of a sleepy wireless those around him.

It seems that we operator, the message requesting help was not received. Many persons perished as a result of this failure to hear der of our lives in the urgent request.

Could it be that many of us in the field of education are sleeping also and erating technical fail to hear the message the larger community is attempting to convey to us? Is it possible that our "wireless" has been turned off or tuned to the wrong channel? This is a present and real danger. A danger we can ill afford to overlook, Icebergs may be floating freely in the lanes of travel followed by the vocational educator. It is quite likely that some of these may be ignored much as the one which caused the vast destruction in the North Atlantic several decades ago. Sensitivity to the desires and interests of others is an ever present and vital need of those who serve the public.

> Tradition tells us that success depends upon one keeping an ear to the ground, a shoulder to the wheel, and his nose on the grindstone. While it is largely impossible to accomplish these three feats simultaneously, there is a message in this ancient saying. It tells us that three elements are involved in progress-industry, persistence and a sensitivity to those round about us. Each is vital in the operation of educational programs in the community.

> There is some wisdom in the observation that it is on rare occasions that a man will trip over a gold nugget while strolling with his head in a cloud of wishful thinking. It is much more profitable to watch where one is stepping not only at this moment but also what is coming up in the immediate future as well as to observe

Recognize and Act

Perhaps it should be said that one cannot follow the whims and desires of all with whom he comes into contact. But, all of these messages are not urgent. Many are ill conceived and are the results of shallow thinking if any thought at all is involved. Still the communication of importance is there and it is imperative that the educator receive it, recognize it, and act intelligently upon it. Failure to do so may be a means of courting disaster.

The message of the community properly acted upon can be of immeasurable assistance to the agricultural educator. For example:

-One is able to visualize problems before they reach the "boiling" stage. Having recognized the situation one is forearmed and may be able to arrive at a suitable solution while things are still relatively calm and relationships are tranquil.

—One is permitted to take the initiative and act rather than being forced to react to a situation which is at the point of getting out of hand. The choice of time, place, and method rests with the educator. He holds the initiative if proper measures are instituted in time.

-Most situations are subject to a variety of methods of attack if cared for soon enough. One is allowed to utilize the circumstances to advantage because of the early warning given. A solution can be secured more easily and more profitably when one is permitted to utilize the procedures he deems best to meet the situation.

—The teacher is in a position to anticipate problems or to become aware of them prior to the time that an emergency arises. This permits corrective measures to be taken while the difficulty is in its infancy. Proper an-

THE AGRICULTURAL EDUCATION MAGAZINE

ncipation reduces the probability of have much to say. surprise and of embarrassment.

The Community Speaks

The community speaks in a variety of ways and through the various elements which make up the group. Some of the more common of these include:

Pupils: Enrollment in vocational agriculture, degree of participation in educational activities percentage of active FFA membership, personal discipline of individuals, holding power of the department, and enthusiasm of the students are indicators of the atfitude the group has toward the teacher and the subject. Each of these may

—Faculty and school administration: The attitude of the faculty toward agriculture, the type of students guided into the program, cooperation given, restrictions placed upon the teacher and his activities, and the degree of financial and moral support and the "extra" duties given the teacher are expressions of the views of one's associates,

-Parents: Parents express their views in a variety of ways in addition to the vocal. These include degree of encouragement given their children to enroll in vocational agriculture, enthusiasm for the program, cooperation with the department and its activities, tell a story. Collectively, they may supervised experiences, and the pro- programs of vocational agriculture.

viding of facilities for use in teaching certain aspects of agriculture.

—Community: The community speaks in many ways including the verbal oratory, the printed word, general attitude, law enforcement records, employment of former pupils, church attendance, follow-up records of former students, public health records, and similar sources.

A healthy program of education in vocational agriculture takes into account the attitudes and needs of those it serves and of those who are instrumental in providing for its ongoing. Hearing what the community says about the program and proper interpretation of these messages are vital arrangements for children to secure to the building of strong and viable

Barren Walls or Eye Appeal?

KEITH CARLSON Vocational Agriculture Teacher Belmond, Iowa

If a parent comes into your class- program, room or laboratory can they tell what is taught in vocational agriculture? Why should blank walls greet students and visitors in the agricultural mechanics laboratory? Instead, we should

An example of this is the electrical distribution system installed in cooperation with the Wright County REC at the Belmond (Iowa) High School. Four large pictures painted by the use this space to post interesting dis- high school art class depict different plays which tell a story about your areas of a modern farmstead. These



Keith Carlson

were attached to the walls in the agricultural mechanics laboratory. Wires were attached to each of these pictures to illustrate how the electrical current reaches the farm buildings. These wires were from a meter loop attached to a corner of the building. The meter loop in turn was wired to a discarded transformer hung in the center of the room from a roof support pole.

What are the advantages of this display? Gray walls no longer greet visitors to the laboratory. Their attention is caught by the colorful display of a modern farmstead. In addition the unit on electrical safety now contains a training aid that easily illustrates how and what happens to electricity as it comes to the farm.

Only your imagination limits how you can make the laboratory more interesting and educational. How many square feet of dull walls are in your agricultural mechanics laboratory?



Wall space in the agricultural mechanics laboratory can be used effectively to inform visitors about what is taught in vocational agriculture.

STUDENTS PRESENT PUBLIC PROGRAMS

PAGE BAKARICH Teacher of Vocational Agriculture Willcox, Arizona

formation activities that I use is a currently being studied in vocational public program where several students present to a group, usually a service club, a program depicting some phase of vocational agriculture or the FFA. The primary objective of this public relations activity is to portray the vocational agriculture student as a highly competent individual who is rapidly developing vocational skills and interest in his community.

Organizing Programs

The organization of the committee responsible for public programs includes a general chairman who sends out a letter to each of the organizations in the community explaining the program and soliciting a date. In addition there is one committee chairman for each program to follow up the letter by phone or in person. It is then this student's responsibility to develop and present the program. Motivation for participation is enhanced by a leadership awards program that requires each winner to participate in a minimum of three public appearances. Students enthusiastically accept the responsibility and competition is keen to win the chairmanship of a program committee. Many students win assignments on their own by influencing parents or relatives who are members of groups overlooked by the general chairman.

Early in the school year each student develops a presentation for use in a program. Freshmen work around the creed, motto, aim and purposes, the emblem, and short essays on other phases of the FFA. Sophomores develop parliamentary demonstrations and explain the supervised work experience program. Juniors and seniors prepare speeches up to six minutes in length and occasionally use them in the chapter public speaking contest.

One of the most effective public in- All groups emphasize topics that are agriculture.

Presenting Programs

Using several boys with short, snappy presentations prevents monotony. Using audio-visuals provides interest and using students of different ages shows a normal progression and development. Everybody loves a freshman, "they're so cute," and one or two older students lend quiet confidence and tend to pull the show together.

The department has nearly two thousand color slides, a host of filmstrips, and an 8 mm film, "The Willcox FFA in Action." The students are ing.

taught to use all the projectors including the overhead projector for their presentations. Although rehearsal is a must, programs have been presented at the drop of a hat. A service club called at 10:30 a.m. for a luncheon program. When a radio program the superintendent had planned failed to materialize, he asked at 8:30 a.m. for a thirty minute radio program at 9:30. At 9:30 the program was on the air and the superintendent was well

This public information activity has a tendency to expand. A local homemaker's club so enjoyed the parliamentary procedure demonstration they asked the students to present it at their annual county meeting. The public information officer for the local REA was impressed by one of the slide presentations and asked to use the slide series on his television program.

The students participating in this activity have a tremendous impact on interpreting the program to the community. In addition they are gaining valuable experience in public speak-

Jack Browning, vocational cox (Arizona) High School makes a presentation to the Willcox Rotary Club.



Subscription Notice

All subscription orders for THE AGRICULTURAL EDUCATION MAGAZINE should be sent to:

Doyle Beyl, Business Manager THE AGRICULTURAL EDUCATION MAGAZINE Box 5115 Madison, Wisconsin 53705

For groups, list in alphabetical order giving the complete mailing address and zip code for each. Make checks payable to THE AGRICULTURAL EDUCATION MAGAZINE.

. Байтандын октионен октионен катын октионен октионен октионен октионен октионен октионен октионен октионен октион THE AGRICULTURAL EDUCATION MAGAZINE

Modern Programs Demand Modern Public Information Activities

LARRY H. ERPELDING Kansas State University

"Why can't this community understand that vocational agriculture is not only preparing boys to farm, that agriculture is not a dying industry, and that we are not wasting the taxpayers' money!" Here is one teacher's reply. "Gentlemen," he said, "First, we need to stop thinking defensively. We must think of our programs in positive terms. Second, we need an upto-date public relations program that completely and adequately describes modern programs of vocational agriculture. The public will like what it ses and hears."

This story points out the key to our public relations problems. Vocational agriculture needs more exposure. Agricultural teachers must show and tell the community about the benefits afforded by vocational agriculture programs. The right kind of public information program can be very effective in gaining the understanding and cooperation of the community.

Before we plan a public relations program we need to be aware of the problems facing the vocational agriculture program in the local community. We should listen for feedback from each of our publics. Parents, prospective students, local businessmen, and school administrators have different attitudes, opinions, and misunderstandings about our work and responsibili-

Critical Problems

If we are to have an organized and efficient public relations program, we need to ask ourselves this question: What are the most critical public relations problems facing the local vocational agriculture department? Simlar questions were asked all vocational agriculture teachers in Kansas whose FFA chapters were awarded the Gold Emblem award in 1968. Let's take a



Larry H. Erpelding

Larry H. Erpelding is a former teacher of vocational agriculture at Newton, Kansas. In 1967 he served as regional advertising manager for the National Future Farmer. Mr. Erpelding began graduate work at Kansas State University in 1968. Presently he teaches agricultural mechanics in the Department of Agricultural Engineering, Kansas State University.

question: What are the five most crit-teachers submitted the following list ical public relations problems confronting vocational agriculture departments today? The most frequently mentioned problems were:

- -lack of support by the administra-
- -people believe agriculture only means farming
- -people believe agriculture is a dying industry
- -other high school teachers object to the large number of contests

The teachers indicated that the following factors have tended to cause these public relations problems: lack of time to prepare information for press, radio, and TV; vocational agriculture programs slow to update to meet the needs of the community; and the name "vocational agriculture" has an unpleasant connotation for many people.

Public Information Activities

After determining which public or publics have a misunderstanding about the program, we should key our efforts to that group. Each public has a definite set of characteristics and interests. We should organize the public information program to capitalize on their special interests.

What were the most successful publook at some of the responses to this lic relations activities? The responding

of public relations activities that have been successful.

- —newspaper articles
- —annual banquets
- —fair entries
- -radio programs
- -advisory councils
- -window displays
- -FFA contests
- -Dad's and Mom's nights
- —open houses
- -Greenhand initiation
- -personal contact with local busi-
- -programs for local organizations
- —chapter farm
- —chapter good will tour
- -newsletter

A close look at these activities reveals that each contains one or two elements required to make any public information activity successful. The activity presents information and provides for involvement by a certain public. People in the community who know the story and are involved will promote the program because they are an intregal part of it.

One teacher put it this way. "Our main support comes from the agriculturally orientated businesses on Main

(Continued on next page)

BOOK REVIEWS

GERALD R. FULLER, Special Editor University of Vermont

COMMERCIAL FLOWER FORC-ING by Alex Laurie, D. C. Kiplinger and Kennard S. Nelson. New York: McGraw-Hill, 1968, Seventh Edition, 514 pp. \$14.75.

This is an up-to-date edition of a book that was first printed in 1934. Commercial Flower Forcing has been an important reference book to all phases of the floriculture industry for over thirty years. Many universities, junior colleges, and vocational schools have used this book as a basic text for introducing the student to the producing and marketing of flowers and plants grown in the greenhouse.

In the new edition of Commercial Flower Forcing the authors treat thoroughly all the latest methods of producing and marketing flowers and plants grown in the greenhouse as well as relating the practices and tech-

niques used to the scientific principles involved. The book provides the proper relationship of principle, concept, and practice in regard to the following areas: greenhouse construction and heating; air-conditioning and plastics; soils; gravel culture; fertilizers; reproduction; greenhouse ills; major commercial crops; minor commercial crops; bulbs, corms, and tubers; flowering pot plants; foliage plants; wholesale marketing; and cost of production.

Commercial Flower Forcing is an excellent book as a text from high school through college. The content is clear, concise, and easy to follow. It is a valuable reference book for commercial greenhouse operators. Garden club members would find this an excellent book for basic study.

> Alice Dries Danville (Illinois) Junior College

FOOD PROCESSING TECHNOL OGY, A SUGGESTED TWO YEAR POST HIGH SCHOOL CURRICULUM, U.S. Office of Education, Division of Vocational Education. Washington, D. C.: U.S. Government Printing Office, 1967 97 pp. 50 cents

This publication is an excellent reference designed to help those who are building new food preservation technology programs or evaluating existing ones. The curriculum presented emphasizes canning food more than any other processing method. It does not include milk and dairy products. dictary foods, or artificial and filled foods. In view of present trends and outlook, more instructional time might be given to prepared-convenience foods

The authors point out the vital importance of a competent and enthusiastic faculty. Field experience and participation in professional, technical and trade organizations strengthen a teacher. The authors state, "A Bachelor's degree is a mandatory requirement—a Master's degree is highly desirable." They also point out that an effective industry-wide advisory committee to assist the administration

and food processing technology staff is extremely worthwhile.

The curriculum presented, the course outlines, and the suggestions for the physical layout and facilities provide excellent foundations on which to build. The bibliography and materials and suggestions in the appendix are well done and of great value. The authors of the "basic materials" for this publication are employed at the New York Agricultural and Technical College at Morrisville, New York. Their recommendations are based on many years of effective teaching in a food processing technology program.

This guide has parts of particular importance to high school teachers of agriculture and guidance counselors, junior colleges planning on establishing or improving the food processing technology program, senior colleges accepting students with food processing technology training, and faculties teaching food processing technology. The bibliography presented should be of value to college libraries.

George C. Cook Agricultural and Technical College Farmingdale, New York

CALL FOR PAPERS RESEARCH SECTION, AMERICAN VOCATIONAL ASSOCIATION

The Research Section of the New and Related Services Division, American Vocational Association, invites papers for presentation at the AVA Convention, December 1969, Boston, Massachusetts.

Papers reporting research studies (empirical or theoretical discussions) should be submitted to Douglas Sjogren, Human Factors Research Laboratory, Colorado State University, Ft. Collins, Colorado 80521.

Papers reporting developmental (including pilot and demonstration) projects should be submitted to Edward Morrison, Center for Research in Vocational and Technical Education, The Ohio State University, 1900 Kenny Road, Columbus, Ohio 43212.

Papers reporting evaluation studies or projects should be submitted to Alan Robertson, Educational Program Evaluation, State Education Department, Room 471, Albany, New York 12224,

All papers must be received by August 15. Each paper must include (a) the name, title and address of the author(s) (with the presenter given first), (b) the title of the paper as it is to be listed in the program, (c) a 300 word abstract of the presentation, (d) the audio-visual equipment needed for the presentation, and (e) two, self-addressed post cards.

More than one paper may be submitted. Notification of the disposition of each paper will be given by September 15. All presentations at the convention will be limited to twenty minutes.

Address questions to any of above named individuals or to the Research Section Program Chairman, Jerry Moss, Department of Industrial Education, University of Minnesota, Minnesota, Minnesota, 55455.

Modern Programs Demand Modern Public Information Activities

(Continued from page 301)

Street. Businessmen such as the bank representatives, livestock buyers, coop managers, and hardware store owners have helped our program tremendously by passing their observations to patrons. I feel that you have to sell your program locally to key men who will in turn do the job for you. However, they must be kept well informed."

Although professional organizations and institutions cannot organize a complete public relations program for the local teacher, these organizations can provide helpful information and assistance. The majority of the teachers surveyed indicated that they use information or materials from the following agencies: Office of Education, National FFA, teacher education institutions, state staff for vocational agriculture, National Vocational Agricultural Teachers' Association, and the Kansas Vocational Agriculture Teachers Association.

Although a majority of the vocational agriculture teachers felt local public information programs were the concern of the local teacher, many of the teachers stated they would like to have more assistance from the agencies listed. Specific help was desired in promoting vocational agriculture through newspapers, radio, and television, making available full-time public relations personnel, and providing information and statistics to teachers for use in public information programs.

Effective Programs

While public relations may help solve some of our problems, it cannot and should not be used to cover up weak areas in the program. The prerequisite for any sound public relations program is a well established and adequately presented vocational agriculture program.

I propose the following six essentials for the development of an effective public relations program.

- -A well-organized vocational agricultural program that meets most of the needs of the community.
- -Identify your publics even those not closely connected with your department.
- —Identify the characteristics, interests, and problems of each public.
- —Organize your public relations program to capitalize on the specific characteristics of your public. Develop activities that provide information and require involvement.
- -Work first with the publics most important to your cause. They will help sell your program to other publics.
- -Continue to analyze your publics and their attitudes toward your program and act before problems arise.

Students Build Facilities

KENNETH W. MILLIGAN, Teacher Great Barrington, Massachusetts

The accompanying picture explains of the area. The FFA offered to conour situation better than words. When we moved into our new Monument Mountain Regional High School, the need of a greenhouse for plant science instruction was evident. In twenty years we had changed from an animal

tribute one thousand dollars toward the cost of a greenhouse.

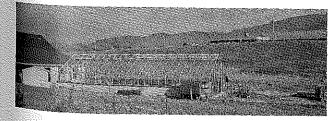
The school administration found the cost of a new greenhouse too high. The Agriculture Department and the FFA decided to build its own facility. science department to an emphasis on A local florist sold us an 18 feet x plant science in order to meet the needs 100 feet greenhouse already taken

> THREE MILLION ON THE HILL (the new Monument Mountain Regional High School, Great Barrington, Massachusetts), but PENNIES FOR A GREEN-HOUSE.

down for \$600. With the help of federal funds, we reconditioned an old barn (shown at the left in the picture) and prepared an area for the greenhouse. A local contractor, a former vocational agriculture student and FFA President in 1945, graded the site without charge. That is only one example of the contributions people in the area have made. Those contributions include money, materials, and services from individuals, businesses, and service clubs.

James L. Collins, the plant science teacher in our department, was in charge of the construction. He did a tremendous job and deserves much credit. The students showed much enthusiasm for the project. In some cases, students who have been dragging their feet for three years suddenly came to life and acted like men. These boys know it is their greenhouse; it was not handed to them.

The entire foundation is in place. As the picture indicates one-half of the greenhouse has been enclosed.



JUNE, 1969

A DILEMMA --- A NEW DIRECTION YOUNG FARMERS:

E. M. JUERGENSON, Teacher Education University of California, Davis



The need for and development of young farmers' groups, post-secondary classes, alumni clubs, and similar organizations over the past quarter century is well known to persons familiar with voca-

tional agriculture in this country. Each state has its own idea of how to meet the needs of out-of-school rural young people and has made efforts to set up organizations to do so with varying degrees of success.

Without a doubt, educational agencies need to maintain contact with former vocational agriculture students and FFA alumni. In fact we need to maintain contact with all young men in a community interested in agriculture and the educational process. These persons are often adrift during one of the more critical and formulative periods of their lives, especially in regard to vocational choice or establishment in an occupation.

Have Organizations Failed?

In this matrix, Young Farmers' groups was born to "bridge the gap" between the above-mentioned segments of young persons as well as between young men just out of high school and adults found in a wide variety of agricultural organizations, agencies, and agricultural industries. In different areas of a state, various organizational patterns developed to meet the needs of out-of-school youth ranging from FFA alumni chapters to an assortment of agricultural groups loosely organized and often clustered around a night course taught by an agriculture teacher.

While the need seems apparent, and the cliche to "bridge the gap" so adequately fits, by and large the

groups have failed as organizations. A need of great proportions has not been filled. The vast majority of rural youth have no rallying point from which to plan and develop their fu-

It is true that among Young Farmers' chapters there are a few glowing exceptions from the standpoint of both growth of membership and imaginative programs. However, the overall picture leaves much to be desired. Rather than an increase in members and chapters, there are decreases or at best only a static situation. For example, there are over 230 communities in California offering agriculture in secondary schools, yet there are less than 50 Young Farmers' chapters. Many of these are only of token value. In junior colleges the picture is brighter, although with a captive audience the group tends to function more as a department club rather than to "bridge the gap." The reason cannot be for lack of effort or genius on the part of either members, teachers, or state staff supervision.

New Purposes

The trouble must then lie in the basic concept of the movement. While the major reason given for organizing is education, the record shows that success is found where the group is generally linked to filling a social need for its members. This need of rural youth can be just as much a responsibility of the state staff in agricultural education as is that one accepted as education. However, if the reason for organizing is only social, then it seems questionable whether institutions should be involved.

In developing objectives, formal education in Young Farmers' chapters need not be neglected but held as a secondary goal to a more important objective that reaches all rural youth meeting. Periodic meetings in a pat-

and binds them in a single commitment — the objective of service Warmbrod's comments in the March 1969 issue of The Agricultural Edu. cation Magazine are worth noting whenever a new group or merger of groups is being considered. He warns that "A national organization can be justified only on the grounds that it serves unique educational purposes that are not or will not be served by existing local and state organizations for post-secondary students." However, it is time for a change and a new look at Young Farmers' organizations based on what the record shows. The new look should encompass service first, with formal education as evidenced by classes, demonstrations or resource persons as one of many secondary objectives.

Service as a function is natural when developed around the Future Farmers of America organization in high school Many Young Farmers are former members of FFA, but most significant is that all persons involved in both groups have a common bond in the agricultural industry and in the basic desire to help others. Most teachers of agriculture have experienced the situation where it is easier to get someone to help them in their program than in getting that same person willing to receive help from the same teacher even though need may seem apparent.

Service Club Concept

Thus the Young Farmers should function as the regular and designated sponsor, godfather, or perhaps even advisory council to the FFA in high school. The Young Farmers then become a service club in agriculture designed especially for young men in rural and urban communities who for social reasons need to mingle with their contemporaries but also must have a useful cause and reason for tern similar to that of most service clubs could form the framework around which the organization can function. The main purpose would be to do everything possible to foster and assist the local FFA. Programs at each meeting could provide useful information, stimulation, recreation, and meet the with the major concern of doing everything possible to foster the local FFA.

Successful meetings generally are regular, short, on time, and develop around a meal. Each meeting includes a timely and interesting program which can meet the educational func-

tion needed by the group. The local FFA president can maintain liaison by attending and reporting on school activities. Further service is provided when Young Farmers serve as judges of local competitive activities in agriculture and by bringing the rest of the group up-to-date which will contribeducation function while blending it ute to an interesting meeting and give members a meaningful way of serving. Many Young Farmers groups are already providing these services to local FFA chapters. However, the important thing is the reason and philrecognized function and not just an own personal good.

The nine former vocational agri-

culture students in West Virginia pic-

tured on this page have several experi-

ences in common; they all carned a

B. S. degree in agriculture at West

Virginia University, they all taught

vocational agriculture (for a total of

71 years, all in West Virginia except

9 years), and they all earned the

master's and doctoral degrees.

occasional activity.

People will rise to the occasion to help others and thereby satisfy the gregarious instinct and desire to serve mankind. Frequent meetings conducted as a service club will provide this opportunity and enable members to improve their skills of communication, working with each other, and handling groups. These activities tend to develop a self-motivating group less dependent on the local teacher. Finally, a cause-oriented group stands a much better chance of success than one that osophy for doing it so it becomes a is being administered to people for their

News of the Profession



University.

berland, Kentucky.

University.



oe P. Bail Doctorate: Michigan

State University, 1957; Present Posi-

tion: Professor and Chairman, Agri-

cultural Education Division, Cornell

Joseph K. Bailey Doctorate: The

Ohio State University, 1964; Present

Position: Dean, Occupational Studies,

Community College of Denver, Colo-

James C. Falkenstine Doctorate: Uni-

versity of Kentucky, 1965; (Deceased

January 1969) Last Position: Director,

Southeast Community College, Cum-

C. W. Hill Doctorate: Cornell Uni-

versity, 1949; Retired, Former Profes-

sor of Agricultural Education, Cornell



Joseph K. Bailey



James Falkenstine



C. W. Hill



James D. McComas



O. Claude McGhee

Warren G. Kelly Doctorate: University of Missouri, 1968; Present Position: Associate Professor of Agricultural Education, West Virginia University.

Robert V. Kerwood Doctorate: The Ohio State University, 1967; Present Position: Coordinator of Technical Education, Pima County Community College, Tucson, Arizona.

James D. McComas Doctorate: The Ohio State University, 1961; Present Position: Dean, College of Education, Kansas State University.

O. Claude McGhee Doctorate: The Ohio State University, 1967; Present Position: Assistant Professor of Agricultural Education, West Virginia University.



Martin McMillion

Martin B. McMillion Doctorate: University of Illinois, 1966; Present Position: Assistant Professor of Agricultural Education, University of Minnesota.

> -Item submitted by W. H. Wayman, Retired State Supervisor, West Virginia.

ADVISORY COMMITTEE

Agricultural Education Division, AVA

Members of the Advisory Committee of the Agricultural Education Division of the American Vocational Association met in Washington, D. C. on March 5-6, 1969. The meeting, which was in cooperation with the Policy and Planning Committee of Agricultural Education Division, gave emphasis to a review of developments and trends in agricultural education. Implications for additions and revisions to programs in vocational agriculture were considered. Members of the committee are:

Alexander Nunn, Loachapoka, Alabama Parke Brinkley, President, National Agricultural Chemical Association, Washington, D. C.

Jere A. Brittain, Research and Development, Uniroyal Chemical, Horse Shoe, North Carolina

Herrell DeGraff, President, American Meat Institute, Chicago, Illinois

George W. Koch, President, Grocery Manufacturers of America, Inc., New York, New York

D. N. McDowell, Secretary of Agriculture, State of Wisconsin, Madison, Wiscon-

Charles Dana Bennett, Special Consultant, Foundation for American Agriculture, Washington, D. C.

Roger B. Corbett, President, New Mexico State University, University Park, New

Douglas Hewitt, Executive Secretary, Farm and Industrial Equipment Institute, Chicago, Illinois

J. K. Stern, American Institute of Cooperation, Washington, D. C.

Tony T. Dechant, National Farmers Union, Denver, Colorado

Clyde Greenway, Director of Public Relations, The Sears Roebuck Foundation, Atlanta, Georgia

Carroll Strecter, Vice President and Editor-in-Chief, Farm Journal, Philadelphia, Pennsylvania

Louis H. Wilson, Vice President for Information, National Plant Food Institute, Washington, D. C.

The Advisory Committee approved the accompanying resolution requesting that recently adopted policy of the U.S. Office of Education pertaining to youth organizations be rescinded.

RESOLUTION

WHEREAS, the Division of Vocational Education in the U.S. Office of Education has been reorganized several times in recent years, and this reorganization has adversely affected the leadership role of the U.S. Office of Education in developing and improving agricultural education, and

WHEREAS, one-half of the time of only one person in the U.S. Office of Education is devoted to leadership in agricultural education, and

WHEREAS, agricultural education continues to serve a great need in the preparation of people for occupations in the nation's economy, and

WHEREAS, the Future Farmers of America is an integral part of the in-

structional program in agricultural education, and

WHEREAS, leadership is needed at the national level for the Future Farmers of America in order for it to function effectively as an integral part of the program of instruction of agricultural education, and

WHEREAS, recent policies issued by the U. S. Office of Education remove the leadership role of the Office of Education in promoting and coordinating the activities of the Future Farmers of America;

THEREFORE, BE IT RESOLVED that the members of the Advisory Committee to the Agricultural Education Division of the American Vocational Association request that the AVA Board of Directors take all proper steps to have the policies issued by the U.S. Office of Education regarding its relationship with the youth organizations rescinded, and

BE IT FURTHER RESOLVED. that the members of the Advisory Committee to the Agricultural Education Division of the American Vocational Association request that the AVA Board of Directors take the proper steps to have agricultural education re-established as an adequately funded and strongly staffed branch in the U.S. Office of Education, including personnel responsible for maintaining relations with the Future Farmers of America as directed under P.L. 81-740, and

BE IT FURTHER RESOLVED, that copies of this Resolution be sent by the Secretary of the Agricultural Education Division's Advisory Committee to the Secretary of Health, Education and Welfare, and the U.S. Commissioner of Education.

Members of the Advisory Committee to the Agricultural Education Division of the AVA attending the meeting on March 5-6, 1969 are (seated, left to right) D. N. McDowell; Charles Dana Bennett; J. K. Stern; Douglas Hewitt Clyde Greenway; (standing, left to right) Herrell DeGraff; Parke Brinkley; Pam Tassin, but the control of the c alternate for George W. Koch; Jere A. Brill tain; Leon Wagley, alternate for Roger B. Corbett; Louis H. Wilson. (Photo by Ralph J.

News of NVATA

JAMES WALL **Executive Secretary**



The NVATA has been quite successful in enrolling members in the organization and probably attains as high or a higher percentage of its potential membership than most organivations. This success can be attributed active state organizations.

States with the most active state organizations are those where a very close working relationship has been developed between supervisors, teacher educators, and teachers. In most instances state supervisors have taken the lead in organizing state associations and in the promotion of their activities. They have not only consulted with teacher educators in developing state plans and state conference programs but have also provided adequate time at the state conference for teachers to conduct the business of the organiza-

The NVATA has always encouraged the three groups within vocational agricultural education to work to-

gether not only at the state level but also at the national level. A fine working relationship does exist and this can be most helpful during times such as presently exist when vocational education in agriculture and the to several factors, the chief of which is FFA is being challenged from many angles.

> The following state associations have attained 100 per cent membership in NVATA for fiscal 1968-1969: Montana, Nevada, Utah, Wyoming, Oklahoma, Nebraska, North Dakota, South Dakota, Missouri, Ohio, Alabama, Georgia, Mississippi, North Carolina, South Carolina, Tennessee, Rhode Island, and Virginia.

> Here are a few of the methods used by these associations to attain 100 per cent membership.

- -Present service awards at the annual conference on the basis of the years as a member instead of the years taught.
- -Collect dues by regions or districts and use committees of two

or more neighboring teachers to urge the last few to pay their dues.

—Provide badges for those that have paid dues at the conference.

—Collect dues of all in attendance at the annual conference.

-Recognize regions or districts for being 100 per cent in membership.

-Hold meetings with student trainees to acquaint them with the advantages of joining in the work of their professional organizations.

—Use the "package plan" of collecting dues.

—Hold a panel at the state conference on the importance of paying dues and supporting state and national associations.

—Always be professional — stress the professional reasons for supporting the program.

Present all teachers with information on the state association and NVATA purposes and accomplishments.



NYATA EXECUTIVE COMMITTEE, 1969. Seated (left to right) Sam Stenzel, Treasurer; Tom Devin, Past-President; William G. Smith, President: James Wall, Executive Secretary. Standing (left to right) Fred Beckman, Region I Vice President: W. T. Black, Region II Vice fesident; Millard Gundlach, Region III Vice President: Glen McDowell, Region IV Vice resident; Travis Hendren, Region V Vice Fesident: Howard Teal, Region VI Vice President.



Students studying vocational horticulture in Connecticut learn the latest practices in greenhouse and plant management. (Photo by L. L. Turner, Connecticut Department of Education)

Itories in Pictures

ROBERT W. WALKER University of Illinois



Richard Finger (right), an officer of the University of Minnesota's Collegiate FFA Chapter, distributes tree seedlings to elementary school students as a part of the Minnesota FFA's tree seeding program. (Photo by Midland Cooperatives, Incorporated)

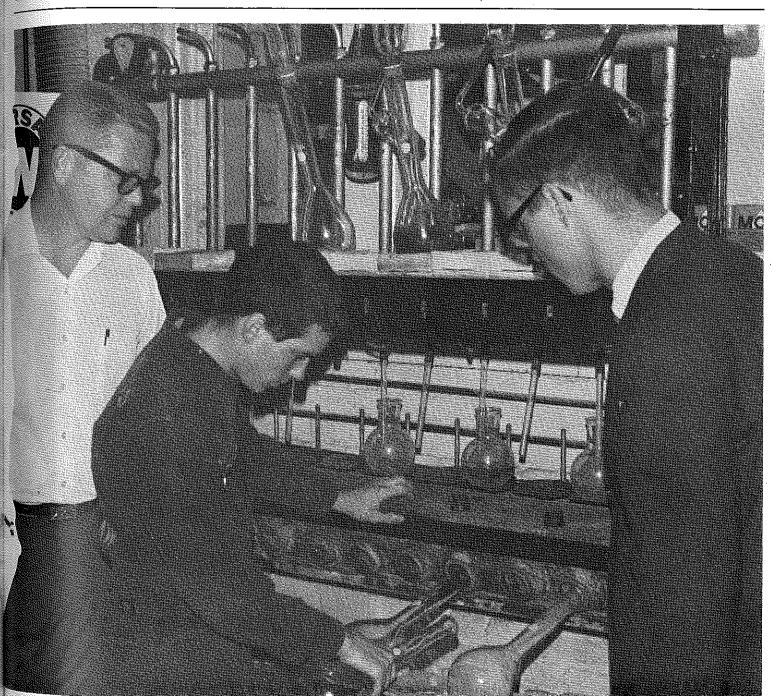


Agricultural Education

Jalume 42

July, 1969

Number 1



Featuring —

THE FUTURE OF AGRICULTURAL EDUCATION