Agricultural Education

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Featuring — Developing Public Understanding

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IN THIS ISSUE

The Cover

A horse drawn sleigh carries winter visitors past the Old Sturbridge Village Meetinghouse, calling to mind Christmas on the farm in years gone by. We wish for each of our readers the same joys at Christmas as those suggested in our cover picture.

Want to help improve this magazine? Send us your suggestions in our reader survey.

Editorials

Guest Editorial . . .

Get the Facts—Then Tell the Story

M. D. MOBLEY, Executive Secretary, The American Vocational Association

M. D. Mobley

The theme of this issue of the *Agricultural Education Magazine*, "Public Understanding of Agricultural Education," is most appropriate. If this important phase of Vocational Education is to be understood by the public in general, the agriculture teachers and officials of our nation must play a major role in a program to "Let the People Know."

In recent years, vocational agriculture has received much unjustified and unwarranted criticism. To set the record straight, we must let the people know the truth. The American Vocational Association in an effort to present the facts published two years ago a splendid bulletin, under the title, "Facts You Should Know About Vocational Agriculture." This publication has been given wide distribution in many states. In other states, it has had little or no distribution.

Each vocational agriculture teacher should accept as an important part of his job the responsibility of acquainting the public in general with the importance of his program and the contribution it makes to individuals and to our nation's well-being.

The Vocational Education Act of 1963 opens a whole new "Pandora's box" for vocational education in agriculture. It will permit the use of federal funds under provisions of the new act (P.L.88-210) to be used for training individuals "in any occupation involving knowledge and skills in agricultural subjects, whether or not such occupation involves work of the farm or of the farm home, and such education may be provided without directed or supervised practice on the farm." It is important indeed that vocational teachers and leaders take steps at once to see that these programs are implemented. Many such programs should be developed in cooperation with other Vocational Personnel in the fields of distributive education and trade and industrial education. In developing programs, it is paramount that Vo-Ag teachers not "bite off" more than they can "chew"—that is, to offer training in occupations in which they are not competent. Poor vocational education is often worse than none at all—because one may teach out-moded knowledge and skills that have to be unlearned.

At least two states (Virginia and Georgia) have made comprehensive occupational studies of former students of vocational agriculture. They have uncovered facts that I do not believe are generally known by the public. Among other things, the Virginia study shows that of the 9792 former students who had studied vocational agriculture for one or more years, only 1.27% were unemployed. The Georgia study—involving 9293 former Vo-Ag students—shows only .89% of those who had studied vocational agriculture one or more years were unemployed. In my estimation studies similar to those made in Georgia and Virginia should be made in every state. Facts are needed to tell the story of the value and importance of Vocational Agriculture. Unemployment among young workers in the nation as a whole is more than 13%, and it only reached this figure in July 1964. Prior to that, the percentage of unemployed among youth ran better than 16%.

In the days and years ahead, vocational agriculture teachers and officials should carry on a continuous, militant campaign to acquaint their members of state legislatures, of the National Congress and the public in general with the importance of their program and the contributions it is making to the economic well-being of individuals and our nation. □

LETTERS

Sir:

Mr. Gordon H. Berg has made important points in his article "It's Time to Change the FFA."

Before we panic and ride our mule in every direction at once, let us take note of who is providing this emphatic challenge in agriculture and related pursuits. In many cases Mr. Berg would find it to be one of our former students.

Farming is gaining in prestige. The inept are leaving the field with the result that only those highly proficient remain. To change our name would be to throw away a golden banner. The Future Farmer is respected, admired and envied. Without this image how else could we have acquired the Vocational Act of 1963?

No one is more aware of needed adjustments in their program than the vocational agriculture teacher. He is faced with the problem every day. Each year a group of seniors go out to face new and challenging situations. They return full of warmth and appreciation to commend the agriculture teacher for providing the training to make them employable.

Mr. Berg, get your head out of the clouds.

CLAXTON R. COOK
Stillwater, Oklahoma

Sir:

Dr. Hensel's tongue-in-cheek essay, "Build Prestige With Confusion Factors," presents somewhat oversimplified issues and posits some unfair analogies. First, agricultural education has not, since WW II, enjoyed a complex similar to *chronic paramissilitis* which now afflicts the sciences. It was not the mistic of scientific jargon which propelled the sciences to their present status, but rather that they provided what the public felt was the answer in meeting an apparent national crisis. Dr. Hensel's cleverly presented thesis does suggest that public understanding cannot be accomplished by programs predicated on the premise that Chapter Sweethearts, judging contests, and nailbox projects meet the needs and challenges in agriculture. In many instances our image interpreted by the public reflects (with some justification) that we are using yesterday's "tools" for today's tasks. Obviously, clothing our discipline in academic and scientific attire is not the ultimate answer. Currently, a cursory analysis of our profession and program might well show that we are less scientific than the total spectrum of agriculture which we now claim to encompass.

J. D. MCCOMAS
Las Cruces, N. M.

"The most dangerous enemy to truth and freedom amongst us is the compact majority." Henrik Ibsen.

State Farm Organizations Support Vocational Agriculture

JOHN F. THOMPSON, Assistant Instructor, Michigan State University


John F. Thompson

Have you ever wondered how vocational agriculture is "seen" by people not directly connected with it? What do they support most strongly? What would they like to see improved? A National Study* was recently undertaken to answer these and other questions. It was the purpose of this study to determine the perceptions of vocational agriculture held by leaders of state farm organizations.

Study Design

The state farm organizations selected were the Farmers Union, the Grange and the Farm Bureau. A questionnaire was developed to measure their perceptions in thirteen areas of vocational agriculture and mailed to the 435 state leaders in the Fall of 1963. An 85 percent response was obtained.

Characteristics of State Farm Organizations Leaders

Degree of Contact with Vocational Agriculture: The influence of leadership training in vocational agriculture is indicated by the fact that 103 or 35 percent of all the male officers of the state farm organizations had vocational agriculture in high school. Note in table I that only twenty-four of the leaders of state farm organizations indicated that they had had no contacts with vocational agriculture.

Summary of Findings

Perceptions of Vocational Agriculture held by Leaders of State Farm Organizations: Leaders of state farm organizations reported that the most important purpose of vocational agriculture was to train boys for an occupation in agriculture—either on or off the farm. They also believed that boys taking vocational agriculture in high school would do as well as other pupils in college.

It is interesting to note that adult education in agriculture was perceived by the leaders of state farm organizations to be an addition to the vocational agriculture teachers' job to be conducted on his own time for extra pay. The development of rural leadership was thought to be the most significant contribution of vocational agriculture to the rural community. The leaders also indicated that vocational ayriculture was an essential part of the school program; that it should continue to be offered; and that its primary contribution to the school was that it expanded the school's program, enabling the school to serve the community better.

The leaders of state farm organizations reported that vocational agriculture would be an asset to any group of prospective students, regardless of their future vocational plans. They also believed that a boy should not be enrolled in vocational agriculture simply because he finds school difficult, he is a farm boy in a high school where vocational agriculture is taught or he is a boy with no plans for a vocation. They supported the current practice of vocational agriculture of having a planned program of placement for farm experience for the non-farm boy interested in agriculture.

Classroom instruction was reported by the leaders of state farm organizations to be the most important area of vocational agriculture and contests the least important area.

An expansion of the vocational agriculture program was emphasized as the leaders of state farm organizations believed that all citizens should receive some instruction in agriculture and that there should be a one-year course in general agriculture in all high schools. They further indicated that vocational agriculture should not necessarily be confined to rural areas or to only a vocational course taught in suburban schools.

The four kinds of instruction selected by the leaders of state farm organizations to receive major emphasis in vocational agriculture were: (1) provide agricultural training to youth who are preparing to farm, (2) offer agricultural training to youth who are preparing for agricultural jobs that require college, (3) offer training in managing a farm business profitably, and (4) provide training in rural leadership activities.

The six kinds of instruction selected to receive limited emphasis in vocational agriculture were: (1) offer training to youth preparing for off-farm agricultural jobs, (2) offer training in maintaining a good farm home and its surroundings, (3) pro-

Table I

DEGREE OF CONTACT LEADERS OF STATE FARM ORGANIZATIONS HAD WITH VOCATIONAL AGRICULTURE

Contact with vocational agriculture	Farmers Union (Number)	Grange (Number)	Farm Bureau (Number)	Total
Took vocational agriculture in high school	11	25	67	103
Had an honorary FFA degree	3	15	51	69
Attended or was a member of a vocational agriculture adult class	11	30	42	83
Had vocational agriculture advisory committee experience	3	10	28	41
Former teacher of vocational agriculture	4	3	21	28
Only contact had been to live in a community where vocational agriculture was taught	13	48	19	80
No contact with vocational agriculture	1	14	9	24
Children were or had been enrolled in vocational agriculture	17	36	25	78
Had lived in a community where vocational agriculture was taught and had one or more of the above contacts	44	107	122	273
Other contacts	8	37	43	88

*Masters Thesis completed at the University of Maryland by the author with Dr. V. R. Cardozier as advisor.

vide occupational guidance in agriculture to high school youth, (4) enrolling those farm and non-farm boys and girls who like to work with plants and animals, (5) enrolling those boys and girls who are in another program of the school but would like to learn something about agriculture, and (6) offer skills in modern agriculture for those youth who like agriculture but will not be able to farm following high school graduation.

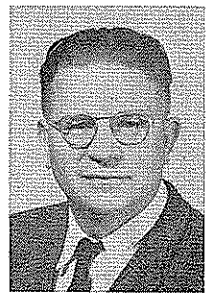
The one kind of instruction rated by the leaders of state farm organizations to receive very limited emphasis in vocational agriculture was to offer instruction to those boys and girls who want to learn to care for the non-farm home grounds.

Leaders Perceptions, by Degree of Contact with Vocational Agriculture: In six of the thirteen areas differences were found when responses were compared by the degree of contact the respondents had with vocational agriculture. In general, the leaders of state farm organizations could be grouped into one of two categories: (1) those having a high degree of contact with vocational agriculture and (2) those having little or no contact with vocational agriculture. For some unexplained reason the responses of those having vocational agriculture advisory committee experiences could not be identified with either group.

Leaders Perceptions, According to Regions: In general, the perceptions of the state farm organization leaders in the North Atlantic region were significantly different from the leaders' perceptions in the other three regions concerning the clientele to be served by vocational agriculture. The perceptions of the state farm organization leaders in the North Atlantic region appeared to limit vocational agriculture to serving only those youngsters interested in farming. Those state farm organizations leaders in the Southern, Central and Pacific regions, in general, perceived vocational agriculture as being for an agricultural clientele rather than limited to serving only those interested in farming. □

Organizational Ability Taught or Caught?

HOWARD CHRISTENSEN, Teacher Education, University of Nevada



Howard Christensen

How does a teacher pass on to his students his organizational and managerial ability? If this question had an easy solution, then, all great performers would automatically be great teachers. The teacher who, himself, is an outstanding planner, manager, and organizer may or may not be any better at teaching this particular ability than one without this ability. The ability to plan efficiently is not only a mark of intelligence, but is a result of a long period of training. Unfortunately, this ability cannot be caught like the measles on being exposed. I have been working in my spare time to develop a serum, with or without a proper scientific name, which can be injected into a high school or college student so they will have the vision of a master planner. I am afraid the development of the magic serum will hit the market about the same time as the invention of my typewriter that cannot make spelling MISTREAKS.

The teacher, as the typist, will have to hit the right keys to teach their students how to be good organizers, and managers. To develop students who have a high degree of this common but all-important ability should be a teacher's primary goal.

Clark Shaughnessy, the famous Stanford football coach, and later coach of the Chicago Bears, said at a football clinic, "With professional players, who are paid, you give them an assignment and expect them to do it without being concerned with what anyone else is doing or what the team is doing as a whole. With college players, the coach must attempt to teach his boys the full game."

Do we have some teachers who teach, for example, farm mechanics, like the professional football coach? "You do this as I tell you and don't waste time by asking questions"? Or, stated in another way, "I'll have you know the project is more important than learning anything."

Our job in Vocational Agriculture is to train students for leadership positions and instill in them a high degree of organizational ability. This ability can be taught. The success in teaching this rather hard-to-define quality depends upon the teacher's effort in studying the basic techniques required. The teacher who has had a wide range of experience in planning successful programs has an advantage over the teacher who has not. The teacher who has not had the experience and is not willing to make the effort to study is usually about as successful as the peddler trying to make sales with an empty wagon.

Major Steps in the Planning and Management of a Special Event

Before the Event

1. Think through basic objectives, problems, limitations, so that the activity can be accomplished with the greatest ease and efficiency.
2. Start planning as far in advance as possible. A test which will determine if you have done a good job of planning is to have a period of time before the event starts when you have nothing to do. In planning an activity, take the following into consideration.

a. Will all the participants complete the activity at the same time?
b. What will be the source of transportation if needed?
c. What parts of the program should all participants be together for special speakers, announcements, and work?

(Continued on Page 141)

Roy Battles

Working With the Professional Communicator

ROY BATTLES, Director, The Clear Channel Broadcasting Service, Washington, D. C.

The role of the communicator is to reach the human mind. His is the task of conveying or communicating facts, impressions, ideas and opinions. Often the ultimate goal of the communicator is to motivate desirable action. This sounds easy enough but the truth is that communicating is a very difficult complex skill. In fact, it involves the artful and scientific use of many skills and techniques. Hence, for the most part; the job of telling agriculture's story of achievement will be told, if told at all, by the professional.

Our task as vocational agriculture teachers then is to help the professional do his work for he is the man who is going to influence the total trend of public opinion and national events. Yet, if the communicator is going to be read, heard or seen, as he must, he must of necessity deal with subjects and events that are interesting—that will attract and hold attention.

So, our first conclusion is that the story of agriculture's marvelous achievements must be largely portrayed not only by the professional communicators but if Vo-Ag teachers or anyone else are to reach the communicators, they must put the story up in such a way that it will interest the communicators themselves. Let it be understood here and now that facts, figures and dull statistics are usually near the bottom of the interest barrel. They are practically worthless unless they are conveyed in terms of human characteristics, interests and desires-of the joys, thrills and heartaches that are part of many lives—of the desires, hopes and aspirations of the class of people you are trying to reach—that they are conveyed so that they are compatible with the basic opinions, prejudices and social customs of the readers, listeners, and viewers. The vocational agriculture instructor then who is interested in helping farmers and the agribusiness world to tell its story must pay prime attention not only to the basic story itself but more particularly to the gimmicks or the human aspects of the story which will make it acceptable to the communicator to use in the first place. In short, you must help the communicator find the raw ingredients that he may use in developing an acceptable finished product.

Personal Contacts a Necessity

Here is how the Vo-Ag teacher can communicate with the communicator, and, by communicator, I am thinking of the editors and their representatives, the reporters and commentators, the speakers and their writers, radio and television personalities, the advertiser, the photographer, etc.

The first rule is simply this. There is no substitute for personal contact and personal friendship, or at least personal professional acquaintanceship. Personal contact is by the far the most effective way of communicating. Personal contact is the greatest motivator known to man. Use it to the maximum degree possible. Make it your business to know the communicators. Make it your business to systematically deliberately, yet delicately and skillfully cultivate them on a sincere basis. Even the less effective means of reaching these important people, such as the written word, the telephone, etc., is far more effective when preceded by a personal relationship. Face to face, person to person, man to man contacts are superior to any other method of reaching the human mind. This sort of relationship is truly the fully effective motivator of action. This is not to discredit the other vehicles of communication. They all have their place. I'm simply trying to say that when you are known and respected by the communicator, when you are appreciated and enjoyed by him, then your influence is generally infinitely greater than is otherwise the case. This of course does not mean making a pest of yourself. Once the relationship is established it must be handled with the best tact and skill that you can possibly muster. And even then unless you deliver the goods in the form of good usable newsworthy stories now and then you may lose much of your effectiveness.

Developing Dependability

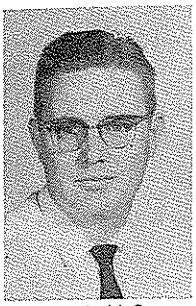
If you perpetually come up with trivia, dead news, dull ideas, nothingness, the communicator is liable to write you off as a potential source of information and feature material. Put yourself in his shoes before you try to sell him a story. Know something about his needs and interests and try to cater to them. And, remember, that while there is great danger in playing favorites there are ways of tipping off the right people to an occasional scoop—a scoop that just fits the type of fellow you are trying to reach, and it generally doesn't do you any harm when a communicator discovers someway, somehow through a tip you might have provided, that he has a real good scoop. Here is a basic truth about communications in general. Few truly professional communicators attempt to communicate for mass consumption. They may appear to be so communicating but communicators who know what it is all about realize that ideas and opinions — facts and viewpoints are conveyed mostly on a person to person basis. Hence, the advertisements, the editorials, the broadcasts and the feature stories are developed to reach the thought and opinion leaders in the various segments of our society. They are designed to reach the influencers. Then on a person to person basis the masses of people hear about it. They hear about it from the influencer. These are the people that attain their viewpoints and opinions by word of mouth contact from others . . . these thought leaders . . . the influencers . . . are the people in the neighborhood or in circles of contact who for some reason or other are the real conveyers of ideas and information.

Yet you must realize that most people including the communicators themselves are a bundle of opinions . . . a package of in-built attitudes,

neither of which are easily or quickly changed. In short, everyone has his own set of prejudices, his own set of likes and dislikes . . . his own conditional responses of one type or another. Yes, even communicators have a strong tendency to select only that which is compatible with what they basically believe — to select on the basis of that which reinforces their original opinions and which gives them added ammunition to expound their basic philosophies or prejudices as the case may be.

The lesson is I guess that those of us who make our living teaching vocational agriculture must realize and understand these basic characteristics of the human mind and guide our behavior in such a way that will be compatible to the long time best interest of those who make their living in the world of food and fiber.

And, to do that means developing and implementing with the greatest of thought, your plans and techniques for reaching the communicators . . . and if need be in gradually helping them to understand agriculture . . . including a helpful, sympathetic attitude about this great and basic industry. □



Duane A. McCune

KANSAS HIGH SCHOOL GRADS WANT AREA VOCATIONAL-TECHNICAL SCHOOLS

DUANE A. McCUNE*

More than 70 per cent of the respondents to a study in this Kansas community would attend an Area Vocational-Technical School if they had the opportunity. To determine the feasibility of establishing such a school, questionnaires were mailed to 244 male graduates of the 1950 to 1963 classes of the Dickinson County Community High School of Chapman, Kansas. Useable returns were received from 148 persons.

Responses to the questionnaires indicated that 106 of the 148, or 71.64 per cent, would attend an Area Vocational-Technical School if this training were available.

It was found that 41.20 per cent of those replying were directly connected with farming and 31.1 per cent were full-time farmers. A need for training in farm management and accounting for their present jobs was cited by 23.6 per cent.

Farming and ranching was listed as the occupation of highest interest in 40.4 per cent of the replies by these graduates. Those who checked more than one interest in occupations selected 48.8 per cent agricultural related occupations.

It was found that 79.28 per cent would prefer to attend classes during the winter. There were 11.3 per cent of the graduates who could attend classes all seasons and 22.6 per cent who indicated they would attend more than one season.

The best time of day to attend classes seemed to be from 7:00 p.m. to 10:00 p.m. This time was selected by 93.32 per cent of those who would attend. This seemed to indicate difficulties in having classes for post high school students from 9:00 a.m. to 4:00 p.m. in this location.

It was found that 51.94 per cent felt the maximum time they could attend would be from 10 to 23 weeks. There were 27.4 per cent who checked 3 to 9 weeks as the maximum time and the remainder selected 24 weeks or more. It could be assumed from this data that the length of time the majority could attend might be shorter than the time needed for adequate training in some areas of an Area Vocational-Technical School program.

The response to distance they would travel showed that 42.44 per cent checked 10 to 19 miles and 24.5 per cent selected 20 to 25 miles. There were 20.82 per cent who would travel more than 25 miles and 9.44 per cent who felt they would travel less than 10 miles. It might be assumed from this study that the majority would travel 20 miles to attend this school.

The study showed that 88.56 per cent were willing to pay tuition and 3.78 per cent of the replies were undecided about tuition.

It was felt that further studies to include a larger population should be made in this community and also additional studies be made in other areas to see what additional needs and interests could be found in connection with vocational-technical training. It was also felt that a study of this nature should be made to determine the interest and needs of students in high school toward training in the Area Vocational-Technical School. □

*Mr. McCune is Vocational Agriculture Instructor at Dickinson County Community High School, Chapman, Kansas.

From Former Issues

Writing of successful teachers in the January 1939 issue, William H. Kilpatrick, said, "His secret lies along three lines. First, he must be sensitive to the way the student feels and thinks. He must understand the difficulties and the embarrassments of each student. Never must he do anything to make the student feel ashamed if he doesn't know the answer or to indicate that he has asked a foolish question.

"The good teacher will look to the practical mangement of the classroom. He will work out every detail of his management in advance. He will never make assignments that will swamp the students or for which the books are not available. He will seat the students carefully, giving the deaf and the short-sighted, special consideration.

"Finally the teacher will be sensitive to significant current problems; he will help to clarify today's situation in whatever subject is under consideration. And he will point the way to future developments. In my classes in education, for instance, we are working on schoolroom methods half a generation in advance of those of today. I mean, it will take popular practice a half-generation to catch up with the best available theory." □

"Reading maketh a full man, conference a ready man, and writing an exact man." Francis Bacon.

Your Communication Is Showing

CLIFFORD L. NELSON, Department of Agricultural Education, University of Minnesota

Clifford L. Nelson

Public understanding of the vocational agriculture program comes from many sources. A complete understanding is seldom found because of the broad nature of vocational agriculture and the usual emphasis of the mass media on the FFA part of the program. Thus the majority of public information and the impressions of the broader aspects of the program emanate from the instructor and the visible activities of the program.

The teacher is a professional communicator. He is engaged in systematic communication of knowledge, attitudes and means of attacking problems. He is involved in this process not only with students but with community members and professional colleagues. Whether he is aware of it or not, the public's image of him and the vocational agriculture program is derived from the efficacy of the communication. The use of the mass media is only one means of providing the public with this information.

Potential Contacts

Every school day the typical teacher communicates with more than 100 students and the majority of the professional and uncertified personnel in the school. The teacher communicates informally and in the formal classroom situation. Besides his contact with the parents of his students through project visitations he is involved with the adults and young farmers of the community as a resource person and teacher. The teacher is also in extensive communication with that segment of the community that is not the direct clientele of the school. This takes place while doing business with local concerns, while taking part in civic and community affairs, attending church and even when associating with neighbors.

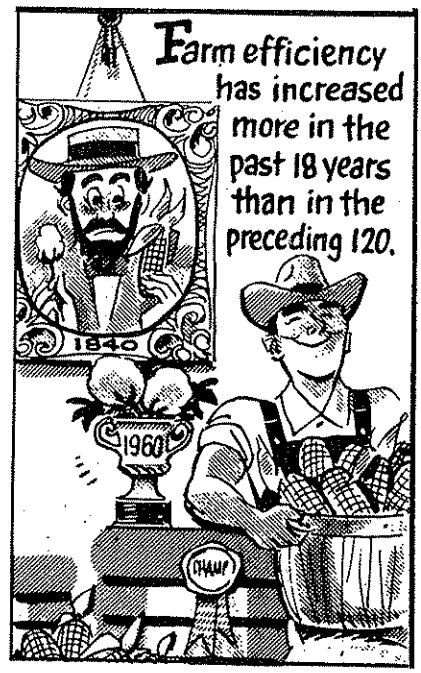
What is the character of this communication? Personal communication takes place mainly by face-to-face discussion, however this communication is mediated by several factors not usually kept in mind. Our communication is flavored and enhanced by gestures, facial expressions and voice inflections. These mannerisms or gestures will add or detract to the impressions we wish to create.

Our appearance is also a means of communication. We contribute to our professional image with our grooming and clothing. A vocational agriculture teacher who always teaches and attends meetings in a tie and coat, for example, conveys, if only by inference, his feelings about the class or meeting he is attending. This can be carried to an extreme but one must not forget its importance, especially to colleagues within the school. How many of you have heard comments about agriculture teachers that are not professionally dressed?

Promptness Important

Our use of time is an important type of communication. If we are always prompt for appointments, meetings and classes we let people know that we feel that these activities are important. If we are constantly late the public receives the impression that we feel these obligations are not important to us.

We project our personality and attitudes with our participation in community affairs. If we are faithful and contributing members in civic and religious activities, we show evidence of our reliability.



The community activities of the FFA also reflect on the vocational agriculture program and the agriculture teacher. When the FFA members are serious and hard working in public programs and displays, the entire vocational agriculture program profits. Conversely, poor representatives of the vocational agriculture program will ruin many years of conscientious public relations.

Don't Miss Professional Meetings

Good relations with our fellow teachers and particularly with school administrators will foster understanding of vocational agriculture. The agriculture teacher that consistently misses staff and professional meetings will find that fellow teachers and administrators are not likely to be interested in the program. These people are a most important part of the public that we need to inform about vocational agriculture. These people are called on, just as the vocational agriculture instructor is, to comment about all segments of the school and to speak with authority on any program of the school.

The most important means of gaining public understanding is by the development and effective implementation of a continuing vocational agriculture program. This program must be comprehensive in its service to the community. It cannot be limited to high school, young farmers or adult farmers alone.

The program must also serve the non-agricultural part of the community. Then and only then can the public begin to understand the value of our program.

To gain public understanding of vocational agriculture we must communicate effectively in all channels. This particularly includes the mass media but we must remember that the public's complete image of our program depends on all of the impressions we create personally and publically as a fellow citizen, teacher and member of the community. □

View From the Outside

H. M. HAMLIN*

H. M. Hamlin

I have long believed that none of us knows what would really be best for him if he were pursuing his own self-interest in an enlightened way. This is true of groups as well as individuals. Much that organized groups of farmers have sought and got in recent decades has not helped them; much that they have not sought would have helped them. Even agricultural educators do not always want what would be good for them or, more important, good for the people of this country, in the long run.

One reason that we cannot envision our own best future is that we are tied closely to local situations and associations. During the past two years I have lived and traveled in a part of the United States in which I have not lived previously and have associated primarily with economists, general educators, and vocational educators outside the field of vocational agriculture. In the summer of 1964 I returned to teaching. Working with 48 graduate students at the University of Minnesota, nearly all of them teachers of vocational agriculture, I tried to convey to them my impressions as to what is currently important in agricultural education as viewed from a new perspective.

Conducting Agricultural Education in an Urban Society

Perhaps the most significant thing that has happened to public school education in agriculture is that it must now be conducted in a society dominantly urban. Higbee's book, *Farms and Farmers in an Urban Age*,[1] is well titled. There are, of course, still thousands of communities that are primarily agricultural, but no state any longer derives the major portion of its income from farming. In the United States as a whole in 1960, only 3.7 per cent of personal income was from farming. Income derived from payments by the local, state, and national governments was five times the income from farming (18.6 per cent). Income from private sources other than farming was 21 times income from farming (77.7 per cent). The percentage of personal income derived from farming varied from .4 per cent in Rhode Island to 25.2 per cent in South Dakota. In 23 states it was under 5 per cent, in 40 states under 10 per cent. It was over 20 per cent in only two states: North and South Dakota. In some states with a great deal of farming the income from it was an almost nominal part of total personal income: New York .8 per cent, Ohio 1.8 per cent, Illinois 2.4 per cent, California 3.4 per cent. In 13 southern states, traditionally regarded as agricultural, income from farming was 5 per cent of total income. In the great agricultural states, Iowa and Kansas, farm income was an eighth or less of total income.[2]

These data, taken by themselves, are misleading. Payments from government increase the income farmers receive. Many businesses, industries, professions, and services would not exist except for farming. The data are presented only to help in understanding the indifference to farming and education for farming of a large part of the population, whose income is not from farming and often is not seen as deriving indirectly from farming even when it is. The urban population must be reminded regularly of the critical importance of farming and of education for farming.

Public school education in agriculture must have, more than ever, the support of farm people and those directly associated with them, but it will rise or fall according to the verdict of the urban population, who must see that the education of farmers in agriculture is important to them and who must themselves receive direct assistance from agricultural educators.

Education's New Significance

Venn has recently brought acutely to our attention the fact that education is now interposed between man and his work for nearly everyone and not merely for the few who have had to meet educational requirements to qualify for special kinds of work.[3]

Teachers of agriculture have a greater responsibility than ever to alert their students to the limitations they face without adequate schooling and to inform them of the educational routes to satisfying employment in agriculture and related occupations.

Education's New Dimension

Probably the most important educational innovation of this century has been the area school. Included in this category are public and private junior and community colleges, vocational schools, and technical institutes. Introduced sporadically in the first years of the century, many states have now authorized statewide systems of area schools. Sooner than most of us have expected, area schools are likely to be as common and as much a part of public education as elementary and secondary schools and colleges. Already there are in 13 southern states an average of 33 area schools per state, public and private, operating or authorized. These institutions are here. It is up to us in agricultural education to find out how to fit into them and how to relate agricultural education in the local schools to them.

Area schools are developing much too haphazardly. Each state is producing its own version or allowing communities to develop theirs. Innovation and variation are necessary in a developing program, but lack of foresight, planning, and use of others'

(Continued on Page 139)

*Since retirement from the University of Illinois, Dr. Hamlin has served as special consultant in vocational education, North Carolina State Department of Public Instruction, and for 17 months as member of the staff of the Department of Agricultural Economics, N. C. State, conducting a study for the Twentieth Century Fund of the economy of 13 southern states and the utilization of human resources in these states. His permanent address is 2133 Ridge Road, Raleigh, N. C.

[1] Edward Higbee, *Farms and Farmers in an Urban Age*, The Twentieth Century Fund, New York, 1963, 183 pp.

[2] The Advisory Commission on Intergovernmental Relations, *Measures of State and Local Fiscal Capacity and Tax Effort*, pp. 15-16. The Commission, Washington, D. C., 1962.

[3] Grant Venn, *Man, Education, and Work*, American Council on Education, Washington, D. C., 1964, 184 pp.


A. W. Tenney

How Agricultural Education Can Cooperate With Other Vocational Education Services

A. W. TENNEY, Division of Vocational Education,
U. S. Office of Education, Washington, D. C.

Editors Note . . .

Closer working relationships among vocational educators of all services have been developing for many years. Among the unifying forces has been the general recognition that this is the best way to meet the educational needs of our clintele. The state vocational associations, the appointment of state vocational directors and the larger schools offering several types of vocational education have all contributed to more cooperative efforts involving more than one service. The most recent development emphasizing cooperative vocational programs has been the National Vocational Education Act of 1963.

Workers in Agricultural Education have much to offer and much to gain by working closely with other vocational educators as opportunities present themselves. To get some specific information on these possibilities we asked Dr. C. W. Tennery of the U. S. Office of Education to answer five questions on this subject.

We believe his answers represent information which all of our readers should consider as they think of future developments in agricultural education.

1. What are the implications of the National Vocational Education Act of 1963 for teachers in vocational agriculture working in cooperation with coordinators and teachers of other vocational services?

The Vocational Education Act of 1963 has a number of implications for teachers of vocational agriculture as they work with other teachers of vocational education and guidance counselors to meet the needs of students enrolled in agriculture. The new Act makes it possible to provide instruction in all occupations below the college degree level. This means that it will be possible to develop many new programs of instruction for persons who have entered or who are preparing to enter any occupation that will require basic training in agriculture. These occupations will vary widely and so will the amount of agricultural instruction required for job entry. Some of the occupations will require much instruction in technical agriculture and a small amount of instruction in other vocational fields; others will need major emphasis placed in areas such as distributive education or office occupations and with limited instruction in agriculture. It will be increasingly necessary to study the needs of individuals for training and to attempt to develop programs that will meet these needs. This should be the major objective. The lines of division between the different vocational services must be eliminated as far as possible in order to meet these specific needs. The challenge should be to provide the most effective instruction possible to serve all persons whose future occupations will require skill and knowledge in agricultural subjects.

Coordinators and guidance counselors can assist vocational agriculture teachers in planning the types of instruction needed by youth and adults.

2. What are some of the experiences of other vocational educators which might have value to new programs in vocational agriculture?

In many communities teachers will be expected to provide, in addition to training for farming, instruction for other agricultural occupations, including placement for supervised work experience. If this is done, the teacher of vocational agriculture must assist in determining opportunities for employment in the occupation and plan carefully the training objectives for the students. The teacher during the period of time that he serves as a cooperative instructor would instruct and help place students, perhaps during the senior year, in other agricultural occupations for experience and training. Only students who desire to prepare for occupations other than farming would be permitted to enroll in such cooperative programs. Since teachers in some of the other services have had much experience with this type of instruction, they can provide good counsel to teachers of vocational agriculture as programs are developed in this area.

3. What are the advantages to teachers of vocational agriculture working with other vocational services from the standpoint of the local school?

Teachers of vocational agriculture, like other teachers, are employed to serve young people in the school and in the community. Those to be served should be uppermost in the mind of school administrators. All teachers should utilize every opportunity to work together toward serving students in the most effective manner. In thousands of communities the secondary school is small and is limited in the faculty it can employ. It becomes a challenge, therefore, for teachers to work together, as far as possible, in meeting the needs of youth and adults. The outcome of the instructional program will be much more effective when all teachers work together.

4. What are some examples of programs which have been developed that involved personnel from more than one service?

Only limited information is available on the cooperative work that has been done by personnel from the different vocational education services. During the past quarter century, teachers of vocational agriculture and teachers of home economics have cooperated closely in many projects. Classes have been exchanged and essential instruction has been given in both homemaking and agriculture. Much cooperative work is being done at the present time by teachers of vocational agriculture and teachers of distributive education. They have been working together on training programs for certain occupations where training needs can best be met by some instruction by both services. Teachers of vocational agriculture and teachers of trade and industrial education classes have also worked closely together on many projects, such as welding and major overhaul of farm machinery. Expanded cooperation of this type can be expected

under the new Vocational Education Act of 1963.

5. What are some examples of future cooperation between services?

In order to provide effective instruction, cooperative programs between the different services will need to expand rapidly in the years ahead. The field of agri-business offers unlimited opportunities for vocational educators to work together as they attempt to meet the wide range of needs of persons employed in this broad field. The objective should be to have the best instructor available to provide the teaching that is needed. Most teachers of vocational education have heavy teaching schedules. They will find it difficult but challenging to adjust their schedules so they may provide special types of instruction needed by the students. It probably will be advisable for teachers to work together on committees to study job opportunities, competencies required for entry in the jobs that are available, the most effective ways to provide the instruction needed and how each teacher concerned can render the most effective instructional and guidance assistance to the persons who need this training.

6. How should teachers of vocational agriculture proceed to develop cooperative programs?

Teachers of vocational agriculture should proceed in developing cooperative programs only after this has been carefully discussed with local school administrators and with a representative of the supervisory staff in vocational agriculture. Before projects of this type are started, careful planning should be done on the State level to coordinate such new developments. When a local program is launched, the most effective practices known should be used. It is a waste of time for teachers to experiment on techniques that have already been proved effective or ineffective by teachers in other communities or other States.

The teacher of agriculture should analyze clearly the need for cooperative work with the other services in the school. He should hold one or more conferences with the other instructors to consider carefully the advisability of working together on a common project. It may be advisable to invite a lay committee to give counsel on the project being launched. This can bring to bear impartial judgment, assistance, and appropriate materials and equipment that may be made available through the assistance of companies, organizations and individuals in the community.

It is impossible at this time to discuss adequately this important topic. It is recognized that more effective programs can be developed through cooperative effort. This topic merits additional thought by teachers, supervisors and teacher educators. The educational needs of the individual and his opportunities for employment must be the focal point for these programs, if they are to serve as a firm foundation for making right decisions and sound constructive plans. □

View from Outside

(Continued from Page 137)

experiences is inexcusable. One of many neglects in organizing area schools has been the omission of agricultural education from most of them.

There is a creative job to be done by agricultural educators in planning the role of agricultural education in area schools so that it will survive and thrive in them indefinitely. It should command the interest of the best of the younger generation of agricultural educators who will live to see their visions fulfilled.

There is also a major task in determining the relationships of area schools to the established programs of agricultural education in the local schools. As area schools develop, education beyond the high school will become nearly universal. Opportunities for many types of post-high-school education, supplementing those now available in the colleges, will arise. Almost everyone, including college graduates, will find in the programs of comprehensive area schools something of value to him. Much of high school education will be directed toward preparation for post-high-school education in all of its ramifications.

With many types of occupational education available in area schools, it can be expected that much of the specialized education for occupations will be postponed until after the high school period. With area schools to share their responsibilities, a more feasible task is left for the local schools. What is it?

1. They can do a much better job than they have done in providing education basic to specialized occupational education and in providing general education. In doing this, agricultural educators may share. Agricultural education is properly a part of the general education of all. A background in agriculture can be developed in the local schools upon which specialized agricultural education in the area schools and colleges can be built.

2. They can provide much better occupational counseling. In this also agricultural educators will need to share.

3. They can provide a broad program of practical arts including not merely industrial arts but general education in agriculture, business, distribution, home economics, and other practical fields. Such a program would be designed to teach the practical things all could use, to assist in acquiring an understanding of occupations and useful work, and to provide background for occupational education. It should begin in the preschool and certainly should not be deferred beyond the first year of the junior high school.

4. They can provide useful skills and understandings for those who will leave school at or before high school graduation. Notable examples are education in farming, homemaking, and office practice.

5. They can introduce to clusters of occupations, providing the beginnings of occupational education for those who will specialize further in the area schools and colleges.

6. They can, with the help of the area schools, offer far more adult education than they are now offering, using the local facilities and staffs to do all that can be well done locally. Area schools in Minnesota and North Carolina are now helping local schools to accomplish far more in adult farmer education than they have ever before achieved. □

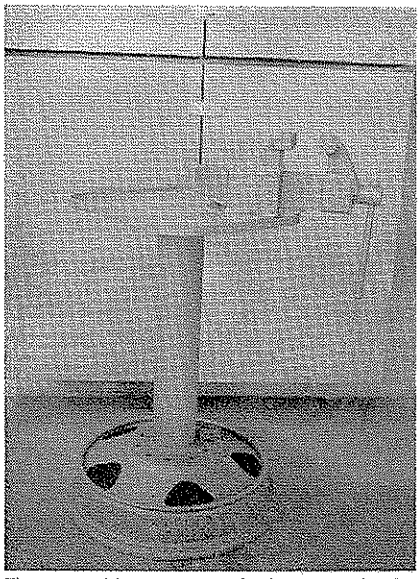
Editor's Note: A second section of "View from the Outside" will appear in next month's issue.

Teacher Shortage in 1953

In an editorial in April, 1953, there was this statement: "For some time now, attention has been directed to the great shortage of teachers in various fields not excepting the field of vocational agriculture. There is a general public awareness of the shortage, but little seems to come from the warnings. Granted, there are a number of reasons for the lack of young men and women turning to teaching as a profession, either temporarily or as a long-time occupation. The general economic situation providing ready employment at attractive wages in such wide variety of opportunities today is one of the most frequently cited reasons."

Home Made Shop Storage

LAYLE D. LAWRENCE
Teacher of Vocational Agriculture,
Medicine Lodge, Kansas

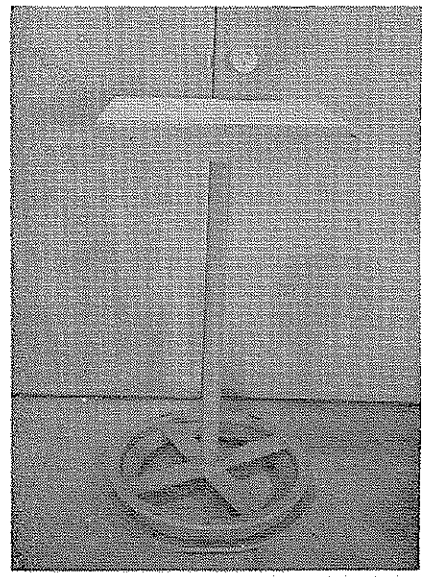


This portable vise was built primarily for classroom demonstration work, but has proved to be one of the handiest items in the shop.

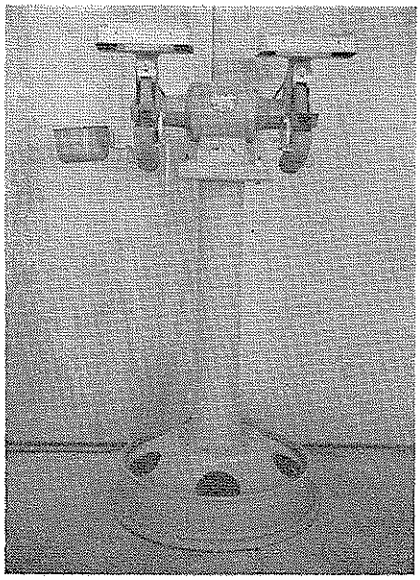
Layle D. Lawrence

Vocational agriculture instructors are often faced with the problem of providing shop storage facilities and equipment to meet the needs of the local situation. All too often, commercial firms cannot supply the items required to fill a particular need in the vo-ag shop; thus the vo-ag instructor must use his own ingenuity and skill in developing usable and convenient school shop equipment.

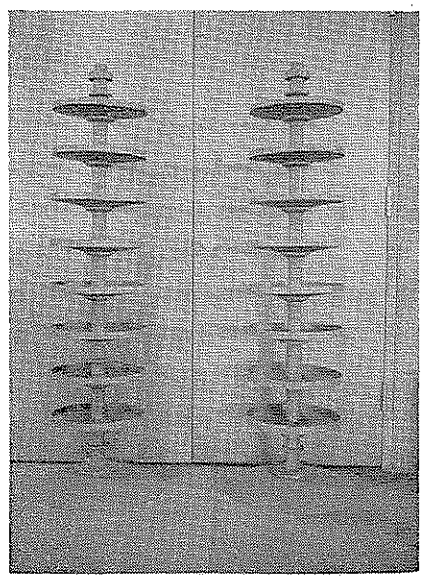
The items illustrated have been constructed by the author and are being used in the Medicine Lodge vo-ag shop at the present time. Several of these items have been duplicated or modified by students for use in their home farm shops. □



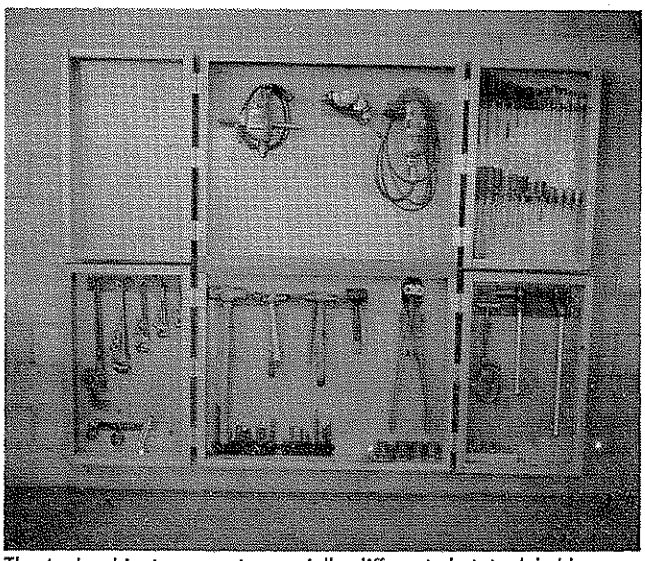
Oxy-acetylene welding practice tables require little space when not in use. Six firebrick in an angle iron frame provide the work surface.



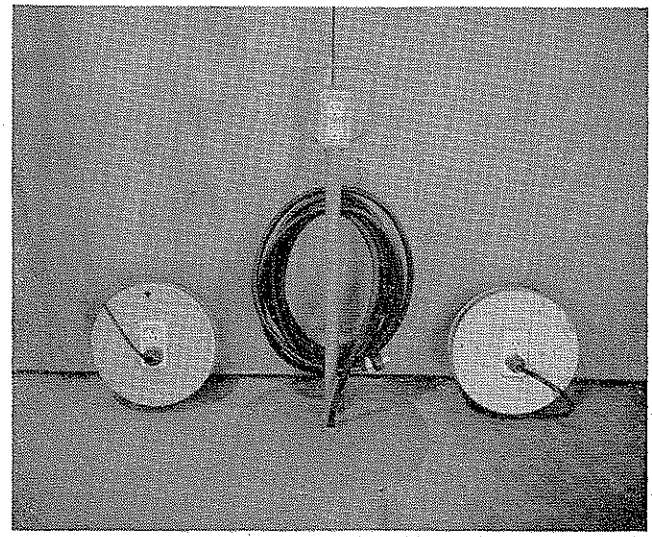
Grinder stands have truck wheel bases. This type of equipment allows for flexibility in the shop areas.



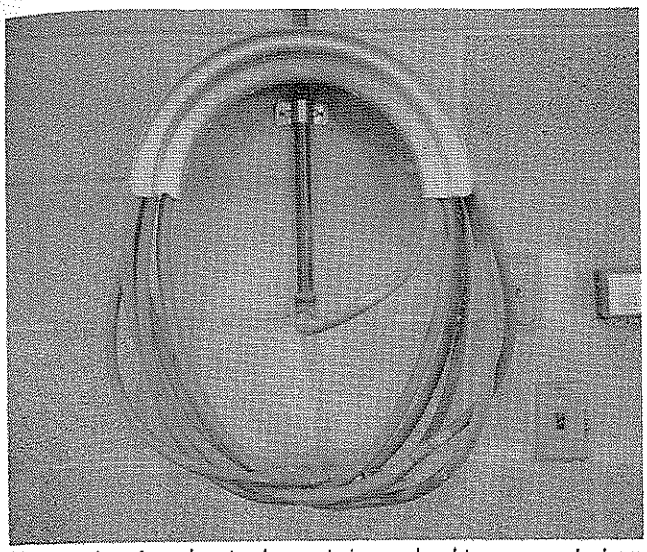
These nail and bolt storage racks have been made from tandem disk sections with one-way disk bases. Twelve gage metal strips were rolled and welded to the disk edges to provide depth.



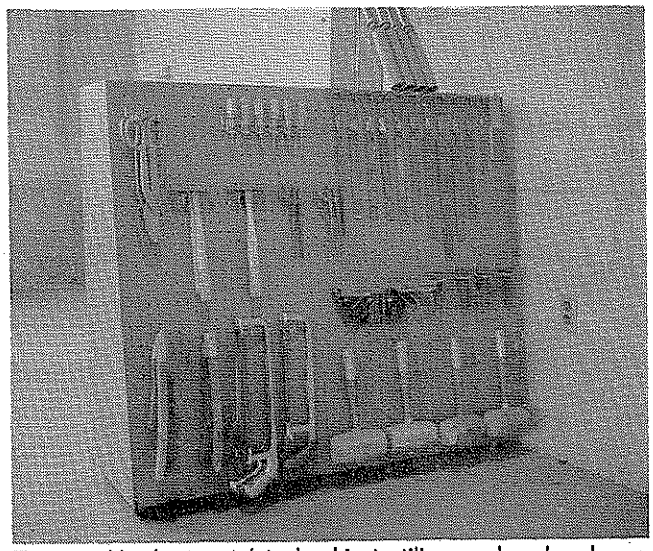
The tool cabinets are not especially different, but tool holders are made from 3/16" flat metal strips with 3/16" to 1/2" studs welded in from the back side through drilled and countersunk holes.



These ideas solved the extension cord problem. The reels are made from plywood circles with switch box centers.



Hangers for air and water hose, chains, and cable were made from automobile wheels cut in half and mounted on the walls.



This portable sheet metal tool cabinet utilizes pegboard and pegboard fixtures and has storage space inside for sheetmetal and soldering supplies. Note the soldering iron holder and the 3/16" welding rod handles brazed to the file tangs.

Prediction of Academic Success at Virginia State College

EARL V. ALLGOOD*

Earl V. Allgood

High school rank in class, verbal ability and quantitative ability were found to have high predictive value for college success at Virginia State College. These three accounted for two-fifths of the variation in first semester grades of freshmen students.

The sample for the study was comprised of 893 freshmen students enrolled in three academic divisions (Land-Grant, Liberal Arts, and Teachers) at Virginia State College during 1960-61, 1961-62, and 1962-63. The study sought to determine relationships between five pre-admission variables and first semester grade point averages of freshmen students as a basis for establishing a selective admission policy. Four placement tests were used along with the other variables to develop probability tables for counseling with freshmen students.

The pre-admission variables were: (1) high school rank, (2) sex, (3) per cent of a student's high school class going to college, (4) verbal score on School and College Ability Test for Eleventh Grade Students, and (5) quantitative score on School and College Ability Test for Eleventh Grade Students.

For selective admission of first semester students, the findings indicated that: (1) predictions from the data of the three academic divisions combined were as accurate as differential predictions by separate divisions, and (2) high school rank, verbal score, and quantitative score were the best variables for the formulation of probability tables. The three measures accounted for 38.9 per cent of the variability in first semester grade point averages.

The use of tables of probability of academic success can enhance the objectivity of a selective admission program at Virginia State College. The counseling of new students may be aided by predictions of academic success based on a combination of the significant pre-admission and placement measures. □

*Dr. Allgood is now Associate Professor at Virginia State College at Petersburg. This is a brief report of his Dissertation study at Pennsylvania State University.

Organizational Ability . . .

(Continued from Page 133)

d. Consider time for extras, as well as safety.

3. Plan the activity as a whole with all segments of the activity included.

4. Make a tentative plan in writing before consulting with others.

5. Get advice from others. "Beware of people who cannot see the whole picture," but get critical constructive help. Often you are not after advice as much as support. Meet the group together. This avoids the tendency of some people to feel slighted by not being consulted first.

6. Develop a final written plan. This should include time, activity, meeting place, person in charge, etc.

7. Select leaders carefully.

8. Advertise the plan so that everyone will know what is to be done.

9. Teach leaders their jobs. Try to determine weak spots and correct them before they happen.

10. Collect materials and keep them together.

11. Organize various groups to work independently of each other.

12. Use facilities that you can control. Rely on your own group before using outsiders.

13. Assign, before the event, the clean-up jobs as well as other important duties.

During the Event

1. Keep yourself free. Have alternate plans ready if there is a failure.

2. Conserve your energy.

3. Be in the spot where there is apt to be trouble.

4. Listen to gripes, but don't take them too seriously. This indicates the need for proper planning and getting everyone to understand the plan.

After the Event

1. Evaluate success and failures. See that materials are returned to the owners.

2. Give recognition to those who assist in the work.

3. Save written programs, lists, important items, or materials; these help to make a record of what was done. Write suggestions for improvement for next year. Start planning for next year as soon as the event is over. □


J. C. Atherton

Program Appraisal

J. C. ATHERTON, Teacher Education, University of Arkansas

The story is told that a couple from the far backwoods attended the county fair. They visited the booths and exhibits and at the close of the day they had a dime each and decided it was time to go home. On their way through the fairgrounds they passed the merry-go-round and the man insisted they ride it. His wife steadfastly refused so the husband bought a ticket and boarded it. The little lady waited for her husband and in a few minutes the ride was over. As the husband returned to his wife she said, "Well here you is back where you started, broke. And you ain't been nowhere either."

Our program in vocational agricultural education can become like this. Without proper direction it may go in a circle and accomplish little although much time and effort have been expended in the process. And then, we may feel that we are doing a good job but have little basis for our judgment.

Indicators of Progress

How can we know the degree to which we are effective? Will we find the answer in the number of hours we work, the enrollment in the department, shop projects completed, winnings in the local livestock show, and similar things? Perhaps we may. However, the answer should come from a complete overview of our entire program and its results based upon a comprehensive evaluation and not a casual piecemeal observation. Bread or a salad does not constitute a complete balanced meal however good the item may be. Neither does one activity make up in its entirety the community program of vocational agriculture.

Every community program in agricultural education should have some specific objectives and these should be the basis for program evaluation. Since objectives guide a school in its life and its work, the community should assist in constructing these guidelines. Likewise, the community as a whole should help determine the relationship the department of vocational agriculture bears to the rest of the school and to the community. The community should assist in these and similar problems.

The organization of the department of vocational agriculture and its program of work should not just happen. It should be set up because there is a job to be done that no other existing agency is doing well.

Identifying Objectives for the Program

In the conduct of its operations the department of vocational agriculture needs resources. The decision to provide these resources and the professional leadership required should be a community function. Decisions made on these matters should be based upon sound information. The community may look to paid professional workers for this information and recommendations for action.

After securing the needed information the community should tell what they desire of the program in vocational agriculture. This should be used as a basis for goal setting and program planning and then later for guidance in measuring success. The community has the responsibility for providing objectives and some of the required leadership.

The teacher of agriculture must lead the community to determine its objectives relative to the agriculture program. Without objectives, the department is in danger of becoming an aimless study group. Goals must be set to measure progress of the department toward its objectives. The community guides the instructor in the goal setting and assists in efforts toward their achievement. The importance of the teacher in this activity is paramount as it is generally conceded that the department will function no better than its leader.

The community should provide also other forms of resources including the needed financial support. It is the responsibility of the community to provide the resources required to carry out any program it establishes. When goals are set and activities planned, this obligation should be given due consideration.

A significant task of the community which is often overlooked is that of reviewing regularly the work of the teacher of agriculture and of the department in the light of its goals and objectives. The teacher and the community often use little time and effort in formal program review and evaluation. It seems, however, that the main hope of the future lies in properly understanding where the program is and where present efforts are leading.

The agricultural department can not afford to lose its way or to misuse the opportunities given it by the school and the community. An evaluation may be beneficial in getting the teacher back on the right road and in suggesting better ways of accomplishing objectives. It may indicate certain strengths in the work, also.

Preparing for a Departmental Evaluation

Before an evaluation study is undertaken, much preliminary work must be done. A vast amount of factual information must be collected and organized for use by the group. Without this information it would be extremely difficult if not impossible for the local community to adequately appraise the local program and to develop plans for its improvement.

An evaluation study of the community program in vocational agriculture should focus the attention of the public upon the agricultural education in the community and the needs in this area. The better informed the public is in this area, the better it is able to give considered advice about its improvement. Some of the questions that should be asked in this evaluation include:

1. What are the objectives of the agricultural education program?
2. What are the short range goals? The long-time goals?
3. Are these objectives feasible and desirable?

(Continued on Page 157)

RESEARCH STUDIES OF PAST TWO YEARS ARE LISTED

The continuing research effort in agricultural education is shown by the fact that 278 studies were completed during the past 2 years. The titles of these studies are listed in The Agricultural Education Magazine as a service to our readers since the U. S. Office of Education no longer publishes "Summaries of Studies in Agricultural Education." We regret that space does not permit including a short abstract of each study, however a copy of the complete text of each research report can be obtained by writing to the library or department address given.

We hope that this list of titles will assist our readers in locating recent studies in which they have a special interest as well as indicating some trends in research now being conducted.

We are indebted to the research committees of the Agricultural Education Division, of the American Vocational Association the past two years for this list of titles. Serving on these committees have been Glenn Z. Stevens, chairman, G. L. O'Kelley, Jr., Gordon I. Swanson, Walter T. Bjoraker, F. T. McQueen, J. D. McComas, Verdine Rice, S. S. Sutherland, and Duane M. Nielson, Editor.

Studies Completed in 1961-62

ALDRICH, GLENN CONAN. Aspects of Occupations Which Rural Boys Consider Important in Choosing an Occupation. Thesis, M.S., 1962. 52 p. Library, Washington State University, Pullman.

BAHNER, PAUL E. Dairy Management Practices Used by Farmers in the Mahanoy Joint School District and Their Relationship to Quality of Milk Produced. Paper, M.Ed., 1962. 25 p. Department of Agricultural Education, The Pennsylvania State University, University Park.

BAKER, JAMES KENNETH. Differences in Selected Characteristics Between Departments of Vocational Agriculture in Oklahoma That Exhibit Livestock on the State Level and Those That Do Not. Thesis, M.S., 1962. 37 p. Library, Oklahoma State University, Stillwater.

BASS, B. C. A Study to Determine Some of the Academic Achievements of Students at Virginia Polytechnic Institute Who Studies Vocational Agriculture While in High School. Nonthesis, 1961, Virginia Polytechnic Institute, Blacksburg.

BEITZ, MYLES R. Factors Relating to Attendance of Farmers in Agricultural Education Meetings. Field Study, M. V. Ed., 1961. 48 p. Department of Education, Iowa State University of Science and Technology, Ames.

BENDER, RALPH EDWARD. Occupations of Ohio's Vocational Agriculture Graduates. Nonthesis Study, 1962. 9 p. Department of Agricultural Education, The Ohio State University, Columbus.

BENTLEY, RALPH R. and REMPEL, AVERNO M. Peer-Selection vs. Expert Judgment as a Means of Validating a Teacher Morale Measuring Instrument. Nonthesis Study, 1961. 16 p. Division of Education, Purdue University, Lafayette.

BENTLEY, RALPH R. and REMPEL, AVERNO M. The Relationship of Selected Factors to Teacher Morale. Nonthesis Study, 1962. 10 p. Division of Education, Purdue University, Lafayette.

BISHOP, JOHN EDWARD FRANCIS. Factors Influencing Occupational Choices of Winterset Vocational Agriculture Graduates. Thesis, M.S., 1962. 116 p. Library, Iowa State University of Science and Technology, Ames.

BODY, FREDERICK LOGAN. Vocational Agriculture Programs in Ohio's Larger High Schools. Thesis, M.Sc., 1962. 124 p. Library, The Ohio State University, Columbus.

BOWYER, NORVIN L. Evaluation of Strawberry Production in Upshur County, West Virginia, for Use by Vocational Agriculture Students, 4-H Members, Rural Areas Development Clientele and Others. Problem, M.S., 1962. 36 p. Library, West Virginia University, Morgantown.

BURT, HOMER O., JR. An Evaluation of Resource Units as a Teaching Aid in Vocational Agriculture. Thesis, M.Sc., 1961. 90 p. Library, The Ohio State University, Columbus.

BYRAM, HAROLD M. The Michigan Phase of the National Study of Young Farmer Instruction in Vocational Agriculture. Staff Study, 1962, Educational Research Series, 4. 66 p. Bureau of Research and Publications, College of Education, Michigan State University, East Lansing.

CAMPBELL, ROBERT NEFF. A Study of the Vocational Education Choices of Junior and Senior Boys in the Clark County Ohio High Schools 1959-60. Thesis, M.Sc., 1961. 110 p. Library, The Ohio State University, Columbus.

CARDENAS, MARIO L. and McCOMAS, J. D. The Cooperative Relationships Between County Agricultural Extension Agents and Teachers of Vocational Agriculture in New Mexico. Staff Study, 1962. 67 p. Agricultural Education, College of Teacher Education, New Mexico State University, University Park.

CAPRA, LUIS CAMARA. Factors Affecting Instruction in Vocational Agriculture for Adult Farmers in Puerto Rico. Thesis, M.S., 1962. 120 p. Library, Virginia Polytechnic Institute, Blacksburg.

CLOVER, EVERETT L. Opportunities for Establishment of Young Farmers in Farming in the Webster City Community School District. Thesis, M.S., 1961. 123 p. Library, Iowa State University of Science and Technology, Ames.

COLEMAN, JAMES VERNON. Determining the Parents' Concept of the Degree of Importance of Competencies and Understandings Which Should be Taught in Farm Mechanics in Vocational Agriculture in the Wynnewood High School. Master's Problem, 1962. 60 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

COLEY, WILLIAM HAROLD. A Study of High School Guidance Activities Regarding Vocational Agriculture Students in Tennessee. Thesis, M.S., 1962. 57 p. Library, Department of Agricultural Education, University of Tennessee, Knoxville.

COOK, DONALD EUGENE. Occupational Status of West Virginia University Agricultural Education Graduates, 1951-1961. Thesis, M.S., 1962. 64 p. Library, West Virginia University, Morgantown.

COURTNEY, E. WAYNE. A Comparison of Knowledge and Experience Levels Required in Three Agricultural Occupations. Ph.D. Dissertation, 1962. 80 p. Library, Purdue University, Lafayette.

CRAIG, DAVID G. An Analysis of Opinions Expressed by Vocational Agriculture Instructors in Certain Public Relations Areas. Thesis, M.S., 1959. 171 p. Library, University of Wisconsin, Madison.

CRAIG, RICHARD P. The Relationship Between 4-H Club Experience and Achievement in Selected Areas in Vocational Agriculture. Master's Problem, 1962. 28 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

CUNNINGHAM, JOE VAN. Use of Time by Students Enrolled in Ohio High School Vocational Agriculture Classes. Thesis, M.A., 1962. 123 p. Library, The Ohio State University, Columbus.

DAVIS, ALTON RAY. An Analysis of Selected Factors Associated with Level of Performance in Farming. Problem Option, M. of Ag. Ed., 1961. 71 p. Library, North Carolina State College, Raleigh.

DEVAUGHAN, ZED FARRIS, JR. Scientific Concepts Taught Oklahoma Vocational Agriculture Students. Master's Problem, 1962. 49 p. Department of Agricultural Education, Oklahoma State University, Stillwater.

DOUGLAS, DALE BURTON. An Evaluation of the Educational Objectives of Vocational Agriculture by Idaho School Administrators. Thesis, M.S., 1962. 51 p. Department of Agricultural Education, University of Idaho, Moscow.

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New Attitudes Needed

D. D. OLIVER, Teacher of Vocational Agriculture, Abingdon, Virginia

D. D. Oliver

The school along with the home and church must mould individuals that possess desirable or undesirable, positive or negative attitudes.

The Teachers Responsibility

Let us consider the school and its role in the formation of attitudes. Since the teacher is the predominant influence in his classroom, it is his responsibility to create an environment that is favorable to the development of appropriate student attitudes. The teacher must acquire professional competence and exhibit a positive attitude before he can develop positive thinking and acting students. He must be friendly, sincere, honest, hardworking, and possess a desire to participate in continuous educational experiences that are geared to meet his needs and the needs of his clientele. A self-inventory will prove invaluable in helping a teacher to rate himself and to map plans for professional improvement.

A Program Essential

In addition to professional growth and improvement, the teacher of agriculture must formulate and put into action a program of work that will propagate and create a favorable environment for the growth of desirable attitudes on the part of his clientele. The "acid test" of the instructional program for vocational agriculture is whether or not it is meeting the needs of the in-school and out-of-school groups in the community. This program should be developed locally by the agriculture teacher with the assistance from such sources as the advisory council, farmers, students, parents, faculty, teacher-educators, supervisors, and other professional agricultural workers. This educational program must be based on the needs of the students, the existing agricultural situation and the trends in agriculture. This program should coordinate mathematics, the life sciences, and the physical sciences in practical experiences carried out on the farm. The educational program of the student will be enriched as a result of the understanding and experience derived from participating in a program of this type. During the past few years, the concept of the industry of agriculture has changed to include the businesses that process, market, and distribute agricultural products and the businesses that supply and service agriculture, as well as the business of farming or the production of agricultural products.

Attitudes Needed

A teacher must exhibit a positive attitude when it comes to public relations. Someone has said that no one ever sold a product with an apology. Our vocational agriculture program is sound and needs no apology for its existence. If the program fails to meet community needs, then the teacher of agriculture has failed. Public relations is nothing more than winning friends and influencing people. It is essential that we give our best and base our public relations program on the best tool possible—the truth.

After looking at the professionally competent teacher that has helped to develop students having positive attitudes, let us briefly consider the teacher who has failed to critically look at himself. This teacher is satisfied with the degree he earned at some time in the past. He sees no value in additional training or keeping abreast of technological changes. For him, appropriate learning has stopped because he is satisfied with status quo. His negative attitude has blinded him and has blockaded the needed adjustments in his program to meet changing community needs. This teacher has painted an image in his community that has given vocational agriculture a "black eye." "Mr. Negative Teacher—U.S.A." may remain on the job and draw his monthly compensation, or he may be fired and move to another community. The sad part of this picture is that a vital job has been left incomplete and our youth and adults have lost a heritage that they were justly due.

The professionally competent agriculture teacher will exhibit a positive attitude, will continue to learn, will formulate an instructional program that meets the needs of his clientele, and will strive to become a respected citizen of his community. □

Four Suggestions for Writers for the "Magazine"

1. Write articles which will interest teachers of vocational agriculture.
2. Avoid a provincial or "one-state" point of view.
3. Unless you are writing an editorial, keep your own personal opinion in the background, concentrating on *what, when, where, who,* and *why.*
4. Document your ideas. References to research, to books and periodical articles often lend necessary support to your own ideas.

J. Robert Warmbrod

Reimbursement Policies Influence Young Farmer and Adult Farmer Education

J. ROBERT WARMBROD, Teacher Education, University of Illinois

States have long recognized the effectiveness of fiscal policies as means of influencing and promoting educational programs in local school districts. The use of special state funds for promoting instruction in agriculture in public secondary schools was begun three decades prior to the time federal funds for vocational education in agriculture were appropriated. Federal legislation—from the Smith-Hughes Act to the Vocational Education Act of 1963—designed to strengthen and improve the quality of vocational education is an application at the national level of this principle of using fiscal policies to maintain, extend, and improve vocational education and to develop new programs of vocational education.

Expansion and Improvement Needed in Young Farmer and Adult Farmer Education

There is little argument with the contention that young farmer and adult farmer education in vocational agriculture should be expanded and improved. The President's Panel of Consultants on Vocational Education reported that in 1960-61 only 3.6 persons were enrolled in out-of-school programs of vocational agriculture for each 1,000 population, 20-64 years of age. The Vocational Education Act of 1963 emphasizes the need for vocational education for youth and adults who have completed or left high school. The appropriations authorized by this Act will make available to the states greatly increased amounts of funds, a part of which should be used for the expansion and improvement of young farmer and adult farmer education in vocational agriculture.

The Problem

In view of the emphasis placed on vocational education for out-of-school youth and adults by the Vocational Education Act of 1963, it is logical to raise questions concerning the effectiveness of fiscal policies as means of encouraging the expansion and improvement of young farmer and adult farmer education. Are some reimbursement policies more effective than others in encouraging the development and expansion of young farmer and adult farmer education in vocational agriculture? A study conducted by the writer of policy and program changes in vocational education in agriculture in nine selected states from 1950-51 to 1959-60 indicated a relationship between a state's policy for distributing state and federal funds to local school districts and the scope of the young farmer and adult farmer programs conducted.[1]

To ascertain whether this relationship between reimbursement policy and program development holds when policies and programs of all states are considered, information concerning reimbursement policies of the states in 1960-61 and data pertaining to the scope of young farmer and adult farmer vocational education in agriculture for the 1960-61 fiscal year were obtained for 46 of the 48 contiguous states.[2] The 46 states were categorized into two groups on the basis of policy for reimbursing local boards of education for a portion of the instructional costs of young farmer and adult farmer education. The categories of states were:

Group I (Complete Program). States which had adopted reimbursement policies which made young farmer and adult farmer instruction a part of a complete program of vocational education in agriculture. This was accomplished by one or more of the following techniques: (1) by *requiring* young farmer and adult farmer instruction as a part of an approved program of vocational agriculture (usually teachers received no additional salary for teaching out-of-school classes), (2) by making the level of reimbursement of instructional costs for teaching high school students contingent upon the out-of-school program conducted in the school, (3) by allowing a definite part of a teacher's school day to be contracted for young farmer and adult farmer education with that portion of the salary reimbursed at a higher rate than the portion of the salary corresponding to that part of the school day designated for teaching high school students, or (4) by allowing local boards of education to employ teachers

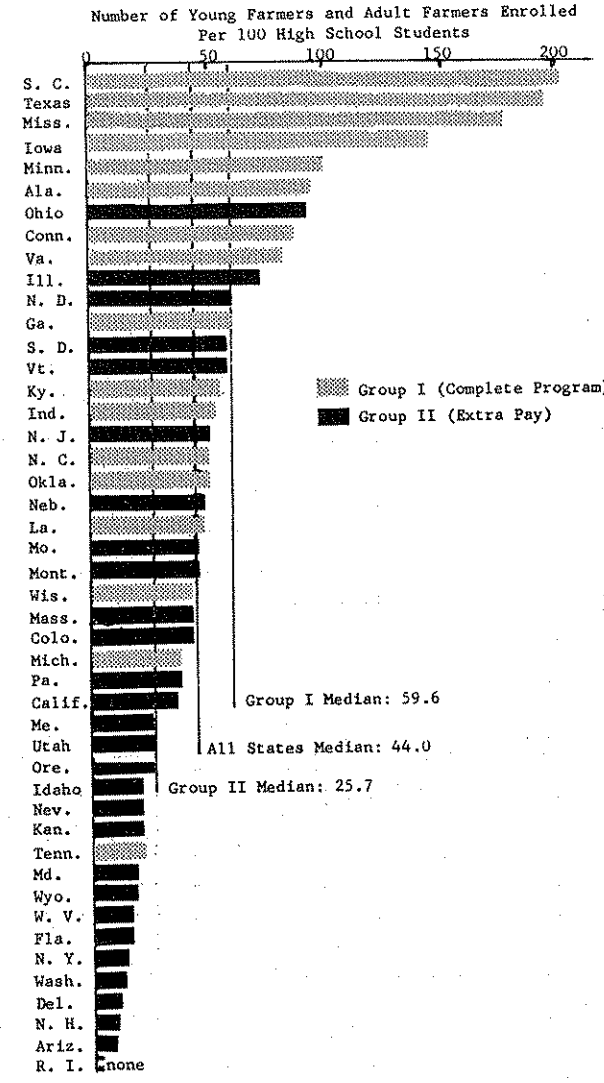


FIGURE 1. ENROLLMENT IN YOUNG FARMER AND ADULT FARMER CLASSES, 1960-61

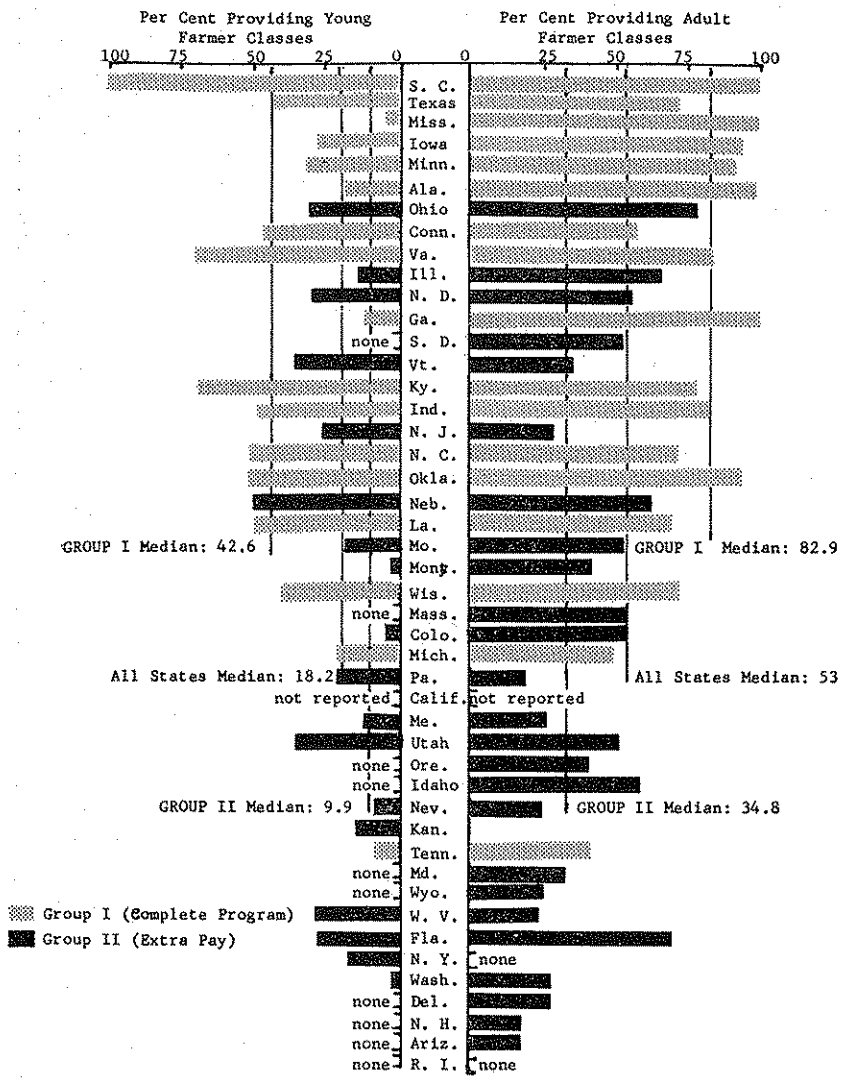


FIGURE 2. PERCENTAGE OF SCHOOLS PROVIDING YOUNG FARMER AND ADULT FARMER CLASSES, 1960-61

for teaching out-of-school classes exclusively.

Group II (Extra Pay.) States which had adopted reimbursement policies which encouraged local boards to pay teachers additional salary for teaching young farmer and adult farmer courses with reimbursement of this extra pay *separated completely* from reimbursement of instructional costs for teaching high school students. That is, the level or amount of reimbursement for teaching high school students was *not* dependent upon the out-of-school program conducted in a school.

Relationship Between Reimbursement Policies and Enrollment in Young Farmer and Adult Farmer Classes

Figure 1 indicates the number of young farmers and adult farmers enrolled during 1960-61 in each state for each 100 high school students studying vocational agriculture. The median out-of-school enrollment per 100 high school students for all 46 states was 44. Data for the 17 Group I states (Complete Program) indicate a median enrollment of 59.6 young farmers and adult farmers for each 100 high school students; data for the 29 Group II states (Extra Pay) indicate a median enrollment of 25.7 young farmers and adult farmers for each 100 high school students.[3] Hence, states with reimbursement policies encouraging young farmer and adult farmer education as a part of a complete program of vocational agriculture had a higher proportion of their total enrollment in vocational agriculture made up of young farmers and adult farmers than did the "extra pay" states.

Relationship Between Reimbursement Policies and the Percentage of Schools Providing Young Farmer and Adult Farmer Classes

Figure 2 shows the percentage of schools in each state teaching high school vocational agriculture that were providing young farmer and adult farmer classes also. For all 46 states, the median percentage of schools providing young farmer and adult farmer education was 18.2 and 53.7 per cent, respectively. In Group I states (Complete Program) the median percentage of schools providing young farmer classes was 42.6 per cent while the median percentage of schools providing young farmer classes in Group II states (Extra Pay) was only 9.9 per cent. The median percentage of schools providing adult farmer education in Group I states was 82.9 per cent; in Group II states the median percentage of schools offering adult farmer classes dropped to 34.8 per cent.[4] Thus, the relationship established between reimbursement policies and enrollment in young farmer and adult farmer classes holds also when policies and the percentages of schools providing young farmer and adult farmer education are compared.

Summary and Conclusions

The study of policies of 46 states for reimbursing local boards of education for instructional costs incurred in providing young farmer and adult farmer education in vocational agriculture revealed a significant relationship between fiscal policies and the scope of the out-of-school program conducted.

States adopting reimbursement policies which encouraged the development of young farmer and adult farmer education as a part of a complete program of vocational education in agriculture had a significantly higher proportion of all enrollees in vocational agriculture made up of out-of-school youth and adults than did states with reimbursement policies which encouraged local boards to

[1] J. R. Warmbrod, *State Policies for Distributing State and Federal Funds for Vocational Education in Agriculture to Local School Districts.* Unpublished Doctor's Dissertation, University of Illinois, 1962, 291 pp.

[2] Information concerning reimbursement policies was obtained from the writer's study. Data concerning the scope of young farmer and adult farmer education were obtained from: U. S. Office of Education, *Digest of Annual Reports of State Boards for Vocational Education, Fiscal Year Ended June 30, 1961.* Washington: U. S. Government Printing Office, 1963. p. 23.

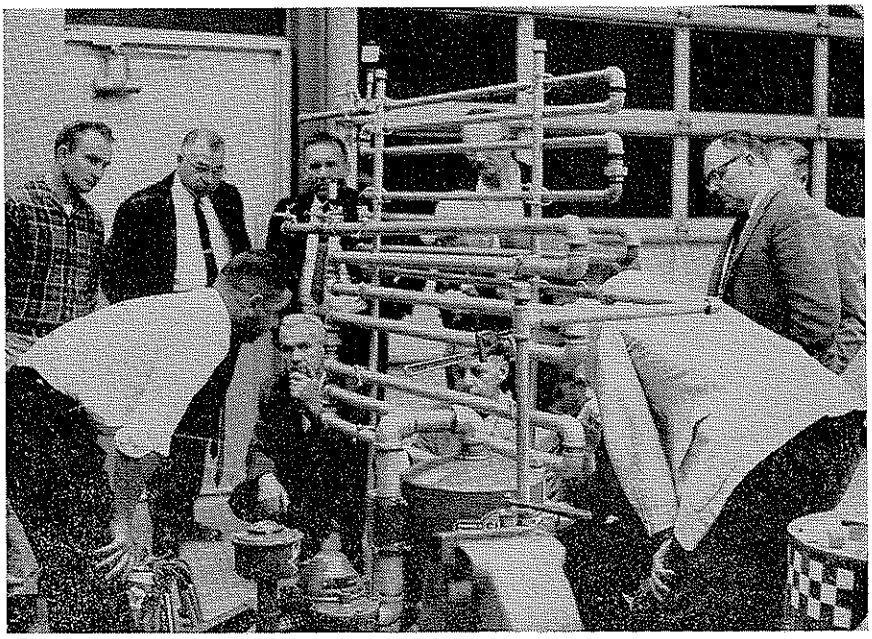
[3] The difference in the median out-of-school enrollment per 100 high school students between Group I and Group II states was tested statistically with the median test. The null hypothesis, that the two groups were from a population with a common median, was rejected. (Chi square = 13.44; $p < .01$) See Allen L. Edwards, *Statistical Methods for the Behavioral Sciences.* New York: Holt, Rinehart and Winston, 1961. pp. 387-390.

[4] Differences in the median percentages of schools providing young farmer and adult farmer classes between Group I and Group II states were tested statistically with the median test. In both cases, the null hypothesis, that the two groups were from a population with a common median, was rejected. (Young farmer classes: Chi square = 10.19; $p < .01$. Adult Farmer Classes: Chi Square = 19.55; $p < .01$).

pay teachers additional salaries for teaching young farmer and adult farmer classes. In the latter group of states, reimbursement of instructional costs for the high school program of vocational agriculture was in no way contingent upon the out-of-school program conducted. Also, states adopting policies encouraging complete programs of vocational agriculture were providing young farmer and adult farmer classes in a significantly higher percentage of all schools teaching vocational agriculture than were states with policies implying an "extra pay for extra work" attitude concerning young farmer and adult farmer education.

It is evident, therefore, that a state's policy for reimbursing local boards of education is one device that may be used to encourage schools to expand and improve young farmer and adult farmer education. The results of this study should not be construed to imply that reimbursement policy is the only, or the most important, factor involved in the development of young farmer and adult farmer education. Undoubtedly, the number of factors involved are many; however, reimbursement policy cannot be ignored as an incidental factor.

With increased amounts of federal funds available as a result of the Vocational Education Act of 1963, states should re-examine their reimbursement policies to insure that maximum encouragement is given to the development of a complete and balanced program of vocational education in all occupations involving knowledge and skills in agricultural subjects, including young farmer and adult farmer education. □



Model Milker Pipeline and Pump

Teaching Teachers Milking Machine Operation

DOYLE BEYL, Supervision, Madison, Wisconsin

Milking time inspections have prompted many Wisconsin dairy farmers to ask for help in overcoming deficiencies in their milking equipment. To explain to the farmers the relationship between poor milker action and the incidence of mastitis, the Wisconsin College of Agriculture in the winter of 1962-63 held a series of mastitis control meetings. Having recognized some of the problems in milking machine operation, many dairymen turned to their teachers of vocational agriculture for advice and help in correcting the deficiencies.

To better prepare the teachers in Wisconsin to counsel with dairy farmers on milking machine problems, the State Board of Vocational Education, in cooperation with the College of Agriculture and several milking machine companies, sponsored a series of 18 milking machine workshops in the fall of 1963.

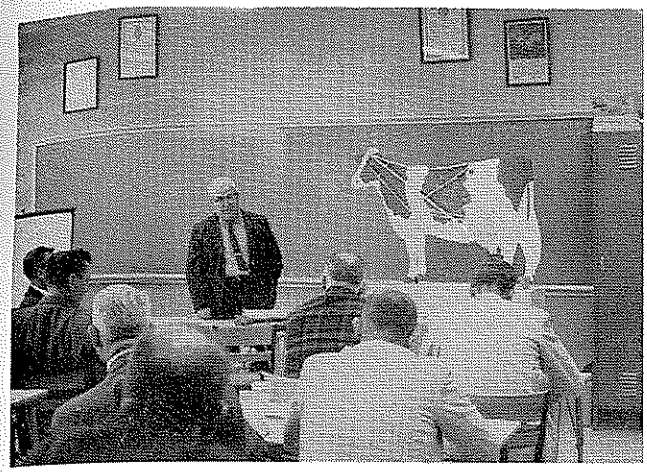
The University supplied technical knowledge and two speakers at each meeting. One large company supplied 80 feet of pipe cut into lengths which would fit the trunk of a car, a pump, a vacuum tank and a milker bucket. Testing equipment necessary to check pulsators and air flow, and a division manager who explained the equipment at each workshop was also supplied by this company. A few other companies were represented from time to time with their test equipment. Nine companies were invited to participate, however there was only one which volunteered to go all out on this program.

The State Board acted as consultants in determining what material should be covered. It was decided that proper preparation for milking and sanitizing of teats should be reviewed. This also included the physiology of milk let-down. A plywood cow with a series of neon tubes was constructed. White lights represented nerve stimulus, blue lights the pituitary gland and secretion of the hormone oxytocin, and red lights the adrenal gland and secretion of adrenalin. Proper use of the strip cup and sanitizing the teat after milking was demonstrated through the use of this model.

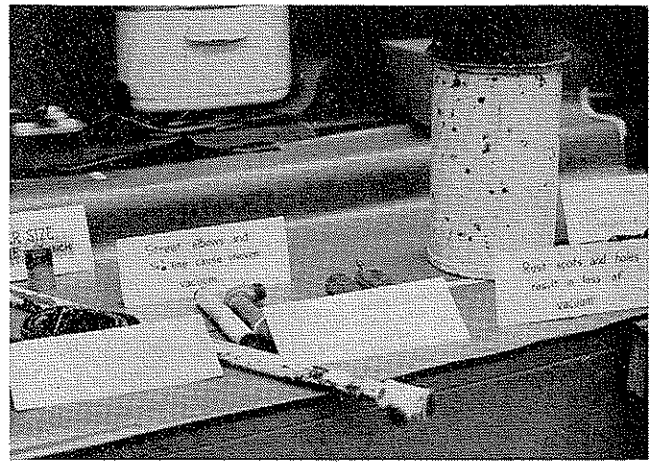
The testing equipment which measured air flow and checked pulsator action was demonstrated. Both New Zealand and American measuring systems were used. This gave the men an idea as to what could be accurately shown and determined through proper use of various testing devices.

The 80 feet of pipeline was equally divided into ¾ inch and 1¼ inch diameter pipe. It was mounted on a rack and the large number of 90° elbows gave the approximate equivalent of 80 feet of 1¼ inch pipe and 65 feet of ¾ inch pipe. This was used to demonstrate the difference in airflow at the pump and at the end of a length of pipe. About 15 milker parts which normally become defective were also exhibited.

A pilot session featured testing the equipment during the actual milking operation on a farm; however, after



Mr. Werner, College of Agriculture Explaining Physiology of Milk "Let Down" to Instructors in Agriculture.



Defective Milking Machine Equipment

this trial experience, the farm trip was cancelled in favor of the portable pipeline. It was learned that conditions from farm to farm and the effect on the herds could not be controlled, and control was essential for the achievement of desired results.

The sessions ran from 4:00 p.m. until 9:00 p.m. with about an hour off for dinner. One hundred ninety-five vocational agriculture instructors participated in the 18 workshops. Several instructors have used part of the information in their adult and young farmer classes. To date there have been at least 100 such classes in which milking machine operation has been featured. In addition, the representatives of the milking machine industry and University personnel have been called in as resource personnel for several additional meetings.

This type of workshop seems to offer much promise. It featured close cooperation between the University, Industry and Vocational Agriculture, and the results have been gratifying. □

A Tribute to Vo-Ag Teaching

LEO KNUTI, Teacher Education, Montana State College

Leo Knuti

Larry Bohl is a young man who has just devoted a decade of his work-a-day life to teaching vocational agriculture. As his teacher educator—preservice and inservice—I have observed him average a 60-hour week to his profession in which he served with distinction. As an "A" student in school he also exemplified superior efforts in his home and community life. After a decade of secondary school teaching he has decided to seek training for employment as a college teacher by enrolling at Purdue University in Agricultural Economics with a National Defense Fellowship —not available in teacher education in agriculture. Here is what Larry Bohl has to say about teaching vocational agriculture:

Today, as I spent my last day as a Vo-Ag teacher at MCHS selling Dave Melin my program, showing him my likes and dislikes, projecting unaccomplished plans, and exposing some of my "dreams" and ideas, I became overly aware of the vastness of our opportunities as Vo-Ag teachers.

True, there are always disadvantages in anything we do, but here are some points that came to mind which perhaps cause me to be somewhat reluctant to give up my role as a Vo-Ag teacher:

1. In what other teaching field does the teacher become so closely associated with, and important to the student?
2. In what other field of teaching does the teacher have an opportunity to work so closely with parents for the common good of the student?
3. In what other teaching field can you so easily design a program to meet the individual needs and desires of *each* of the students?
4. In what other field of work do you have the opportunity to alter the daily routine to suit your particular whim or fancy—thus eliminating boredom?
5. In what field of teaching or work can you observe both immediate results, as well as the lasting effects of your efforts?
6. Where might you find another job or profession which allows you to work with all the wonders of nature—from the most nonproductive soil—to the finest of human personalities?
7. What other teaching field can boast the fact that it has a definite direction and capable directors to keep goals and aims keynote in our minds as we have in Vo-Ag?
8. *And*, where else would you find such a "hard core" of dedicated men, though small in number, who work together and fight together to upgrade the profession of teaching, and especially Vo-Ag teaching as we have in MVATA?

As I ponder these points, I know how much Vo-Ag has meant to me, both as a student and as a teacher; and I know why I am proud to say I am an Ag Man!

Though my new studies and future work may take me away from the actual role of Ag teaching, I shall always consider myself to be an Ag teacher, who has gained so much from the associations with other MVATA and NVATA people. My thanks go out to each of you for your understanding, cooperation, helpful ideas, and fellowship, which has certainly broadened my limited horizons.


Lawrence W. Drabick

Educational Programs Based on Student Characteristics[1]

LAWRENCE W. DRABICK, Department of Agricultural Education and Rural Sociology, North Carolina State University

New buildings present a modern front for education, and the facilities within the walls provide teaching formats unknown in the past. But now as then, education is successful only as it relates to the needs, interests, and aptitudes of the students to whom it is directed. Teachers of vocational agriculture long have been proponents of this philosophy and have structured their programs accordingly.

In order that the student-oriented approach to education may be effective, there is need for continuing research resulting in description of the students for whom the program is designed. Only by this means is the teacher and program planner enabled to prepare a program based on fact.

A research project with this goal recently was conducted in 12 high schools representative of all rural economic areas of North Carolina. The sample was the entire senior class present on the day of the interview. The purpose of the study was to isolate socioeconomic characteristics of vocational agriculture students.[2]

Description of Vocational Agriculture Students

Perhaps the most meaningful finding of the study was that *the occupational and educational aspirations of vocational agriculture students were relatively low.* Fifty-eight per cent expected to occupy positions within the prestige range of 60-69, placing them in the category in which are found positions such as garage mechanic, plumber, and tenant farmer who owns livestock and machinery.[3]

About 12 per cent announced a firm commitment to enter college in the succeeding fall term. Contrary to findings of other studies, planning to farm had an elevating rather than a depressing affect upon college plans. Thirteen per cent of the vocational agriculture students planning to farm intended to enroll in college as opposed to 11 per cent of those not planning to farm.

The students expressed *a strong conviction of their ability to influence events in their lives.* When asked to name the major source of influence on their occupational and educational choices, 64 per cent of the vocational agriculture students claimed the occupational choice to be their own responsibility, while 79 per cent felt themselves responsible for their educational choice. The most widely recognized source of outside influence was the immediate family, which 17 per cent of the students believed to have influenced their occupational choice (nine per cent named their father) and 11 per cent recognized as an influence upon their educational decision. A teacher was named as the major influence on both the occupational and educational decision by five per cent of the students. A "friend" was seen as a major influence by 10 per cent and four per cent respectively.

Similarly, students considered *the attitudes of their parents to be favorable to the decisions they had made,* a belief which may have had its genesis in implicit parental direction of student choice. Eighty-eight per cent of the students stated their mother's attitude was favorable to their occupational choice, while 93 per cent so stipulated their father's. In relation to the educational choice, 78 per cent believed their mother to be favorable and 77 per cent indicated a favorable attitude for their father.

These students were *upwardly mobile, aspiring to higher positions, occupationally and educationally, than those attained by their parents.* The first expected occupation would be of higher prestige than that currently occupied by 42 per cent of their fathers. More than two-thirds of the sample had exceeded the educational attainment of their fathers merely by being seniors in high school. Further, 79 per cent of the students aspired to educational levels greater than those of their fathers. To some extent this latter was a reflection of low levels of attainment by the parents.

Almost half of the vocational agriculture students intended to migrate from their home community. In most cases they indicated that migration was necessary to obtain the occupations to which they aspired.

Intelligence records at the schools showed that *55 per cent of the vocational agriculture students had IQ's of less than 100.* This information is tempered by two factors: the distribution approaches a random array in terms of a mid-point of 100; and the scores were compiled by different methods at the various schools.

Comparisons with Students in Other Curricula

The lack of significant differences between vocational agriculture students and those in other curricula was more surprising than were those significant differences which did occur. For many of the variables tested, it could be assumed that the two student groups were drawn from the same population. Despite this, there were differences between the two groups, many of which may be cited only as trends, but a few of which were of statistical significance as determined by chi square.

Vocational agriculture students had lower occupational aspirations, with

[1]Grateful acknowledgement is made to Dr. C. D. Bryant, Dr. H. E. Beam, and Dr. C. C. Scarborough for their critical and perceptive comments upon this manuscript.

[2]Lawrence W. Drabick, *The Vocational Agriculture Student and His Peers,* Educational Research Series No. 1, 1963, Departments of Agricultural Education and Rural Sociology, North Carolina State, Raleigh, North Carolina.

[3]The prestige of occupations was determined by employing a modification of the occupational prestige rating device developed for the National Opinion Research Center by Paul K. Hatt and C. C. North.

the difference significant beyond the .001 level. They also were more independent in their occupational decision, according somewhat less influence to their families than did the students in other curricula. And vocational agriculture students viewed their families as strongly favorable to their occupational decision more frequently than did other students.

Vocational agriculture students had lower educational aspirations, with the difference significant beyond the .05 level. Vocational agriculture students were more independent of outside influences in making the educational decision. They accorded less influence to their families than did the other students, with the difference significant beyond the .01 level. And, they less frequently perceived their parents' attitude toward the educational decision to be strongly favorable than did the other students.

Parental attainments of students in other curricula tended to be greater than for those of students in vocational agriculture. The difference in prestige of occupation was significant beyond the .001 level. However, this must be qualified by pointing out that occupational prestige of the fathers of students in other curricula peaked both below and above the occupational prestige mode of the fathers of vocational agriculture students. Despite this, a lesser per cent of the fathers of vocational agriculture students were in occupations of high prestige. The educational attainment of the fathers of each student group were relatively low. However, the fathers of students in other curricula were more frequently college graduates than were the fathers of vocational agriculture students.

More of the vocational agriculture students expected to remain in the community in which they currently were residing. Fewer of them felt they would be obliged to leave the community to find the type of work they wished, and fewer of them had determined to leave regardless of occupational necessity.

On one final point there was a difference to which attention must be drawn. *Intelligence scores of students in vocational agriculture were represented disproportionately in the lower ranges* in comparison with IQ scores of other students. The difference was significant beyond the .01 level.

Implications for Vocational Agriculture

These findings can be translated into implications for the program of vocational agriculture. On the assumption that the findings might be repeated in a more widely distributed sample, let us make some comment about the response of teachers and program planners to those implications.

Aspirations of vocational agriculture students need to be upgraded. Granting that not all persons can or should attend college and that the lower prestige occupations must be manned for the benefit of society, there is no basic reason why students in vocational agriculture should be deficient both in educational expectations and the levels of proposed occupational prestige.

Students need information concerning the types of occupations available. And, they need knowledge about the function of educational preparation in attainment of the more desirable occupations. Such information should be part of the educational process. If not available elsewhere, by default it must be included in the vocational agriculture curriculum as a vocational teacher, the teacher of agriculture may logically and legitimately include such information in his program, even though in some situations he may be constrained to description of agriculturally related occupations.

The data force us to inquire if the scope of the educational program available is adequate to the needs of the students. Particularly is this true in view of the large number of students who will migrate. For these students it is not sufficient that they be given an education based on local needs and customs. Since they will be living in the larger society, they must be made aware of what that society is, the demands upon them which it will make, and the behaviors, customs, and beliefs prevalent within it. The scope of education must be broadened to be inclusive of the American society; a broadening to incorporate the culture of the state would be deficient. The school has an obligation to prepare the student for "life." And, for many students that life will be lived outside of the area in which his education was obtained.

In this same vein, the school must provide the vision which will enable the student to see beyond his own family. The time when children could use their family members as occupational and educational role models has to large extent passed. That students are aware of this is evidenced by the large number who expect to surpass the attainments of their parents. But, the extent to which they expect to do so is limited. For example, the greatest number of vocational agriculture students expected occupations in the prestige range of 60-69 which was precisely the range in which the majority of their fathers were found. The school can and should provide the means for students to be more aware of social and occupational opportunities, since in many cases the family cannot do so.

Those who are responsible for program development should keep in mind that the family plays an inherent, even if unperceived, role in the student decision-making process. Therefore, students should be encouraged to counsel with their parents when this is possible. And, the teacher and program director should be in contact with parents to determine their educational perspectives. Cooperation with the parents can result in a more meaningful educational experience than can be devised by the school alone. Similarly, it can improve the "atmosphere" in which learning occurs.

Of even more importance to vocational agriculture is the question of selection of students for the program. There have been accusations that the vocational agriculture program becomes a dumping ground for students unable to make the grade in other curricula. The discrepancy in IQ of the vocational agriculture and other students tends to support this point of view, as does the relatively small per cent of the former who plan to farm. It may be necessary for the teacher of vocational agriculture to accept students whom he would not choose; but if so, he should use his ingenuity to devise a program which will not suffer from their presence.

One means of accommodating vocational agriculture students of diverse interests and abilities is to provide separate "tracks" for them to pursue. This method has been found to overcome a number of problems encountered when students of varied ability and desire are found in the same program.[4] It provides the more able and better motivated to move unencumbered by the slower learners.

[4]For example, by Mr. Thomas Keith, Lafayette School, Kipling, North Carolina.

It creates opportunity to devise separate programs most suited to the needs of the individuals. Perhaps most important, it allows the teacher to perform at his optimum level, unhindered by the artificial need to teach students who are uninterested in what he has to offer and unable to maintain a reasonable pace of reception.

The data of this study indicate without question that characteristics of students differentiate between them in ways affective of the educational processes to which they were exposed. The response of decision-makers in vocational agriculture should be to structure the educational environment in such a way that all students will find it conducive to their best learning and preparation for life. □

Class Develops Farm Plan

HERBERT E. MAXEY, Teacher of Vocational Education, Buckingham, Virginia

Herbert E. Maxey

During the summer of 1963 members of the Buckingham Central High School Young Farmers Association, Buckingham, Virginia, decided that the farm planning phase of farm management should be explored and requested their teachers of vocational agriculture to conduct a series of special meetings, in addition to the regular monthly meetings, during the winter of 1963-64 to get the job done. The teachers responded with much enthusiasm.

The writer and J. J. Covey, teachers of vocational agriculture, and Jim Nolen, Agricultural Extension county agent-at-large working with the agricultural extension farm management program in Buckingham County, cooperated in organizing and presenting the course.

Selection of "Farm X"

A local farm, rather typical of the livestock-tobacco farms in the community, was selected to study in detail. This farm was referred to as "Farm X". Seven group meetings were devoted to studying and analyzing the conditions on this farm and preparing a proposed plan to be followed in the future. Between meetings the teachers spent much time and effort gathering information.

At the first meeting farm planning was studied from the standpoint of the farm operator and his influence on his farm business.

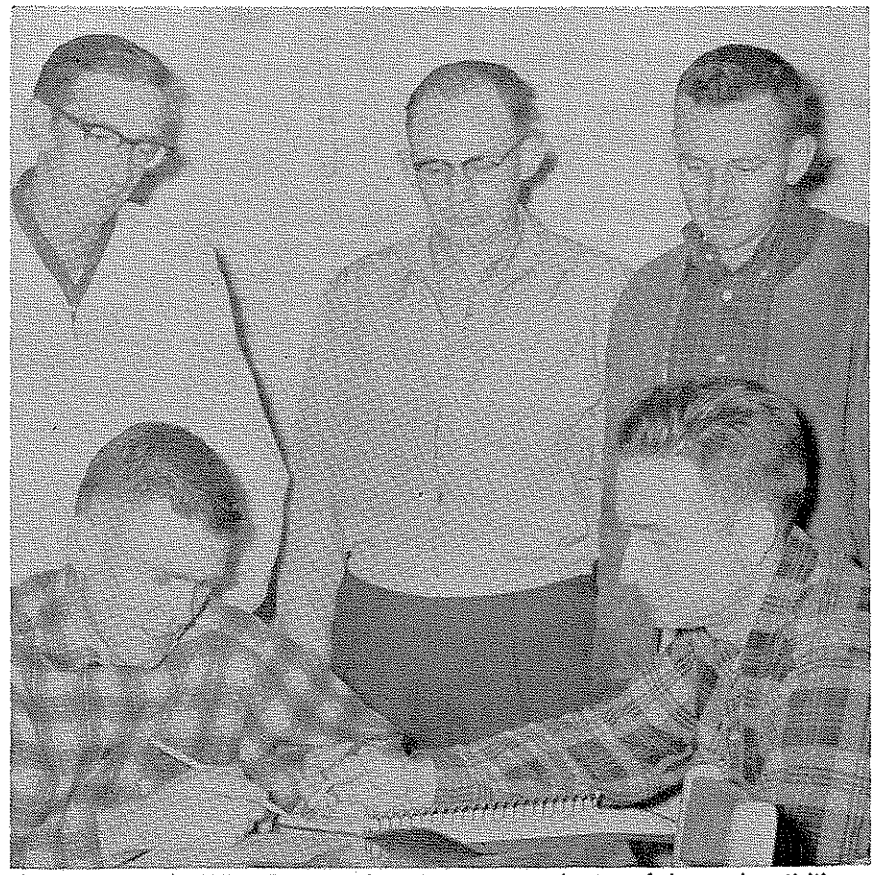
Detailed records kept by the farmer were summarized and a survey on "Farm X" was made in preparation for the second meeting and this meeting was devoted to analyzing the resources the operator of this farm had at his disposal. G. B. Wood, Soil Conservation Service technician, helped by furnishing information on soil types and capabilities. Limitations such as the allotments of certain crops, available storage space, and available capital were also studied.

A complete budget was developed for each crop enterprise considered for "Farm X". Crops included were corn for grain, corn for silage, red clover, lespedeza, wheat, barley, soybeans, and dark (fire-cured) tobacco. Working in pairs, the young farmers prepared these budgets with the assistance of the instructors of vocational agriculture. In preparing these budgets, such things were done as comparing the cost of chemical weed control with the cost of cultivating corn, and comparing the cost of fertilizer nutrients from various sources. Other items on which calculations were made included the cost per hour of operating each kind of machinery and equipment commonly used on farms in the community and determining labor costs.

Budgeting Crop and Livestock Enterprises

The fourth special group meeting was devoted to preparing a budget for each livestock enterprise considered for "Farm X". These budgets were prepared in the same manner as the budgets for crops and included the enterprises of cow-calf beef herd, feeding steers of various weights, swine breeding herd, feeder pigs, and feeding out market hogs.

During the fifth special group meeting the crop and livestock enterprises considered for "Farm X" were arranged to show a comparison based on estimated returns per acre of crop or head of livestock, and estimated returns per hour of labor.



The writer joins the Y.F.A. Executive Committee in an evaluation of the year's activities.

A proposed farm plan was developed for "Farm X" during the sixth special group meeting. This was done by selecting the most profitable enterprises and working each into a plan to the maximum size based on limitations such as acreage allotment and suitability of available soil.

The seventh and final special group meeting in the 1963-64 series was devoted to contrasting the proposed plan for "Farm X" with the system in use on the farm. Everyone who had participated in developing the proposed plan was agreeably surprised to learn that, if the proposed plan was put into use, the estimated net farm income would be increased by about $200 per month. This could be done primarily by making more efficient use of land and of the operator's labor.

Young Farmers Like This Approach

After evaluating the series of special meetings (attended by an average of ten young farmers) the young farmers and teachers agreed that these meetings had been highly inspirational and informative for all participants, both young farmers and teachers. Each of the young farmers indicated a desire for assistance as soon as practicable in preparing a farm plan for his farm. Enterprise budgets were recognized as the "backbone" of a farm plan. One of the main handicaps encountered in preparing a farm plan for "Farm X" was the lack of adequate information for compiling enterprise budgets.

Members of the Buckingham Young Farmers Association expect to continue stressing the importance of learning and using farm management practices which will increase their efficiency. The next series of special meetings will be devoted to determining the least cost rations for livestock produced in the community. □

Effectiveness of a Summer Program in Vocational Agriculture

WAYNE G. KOENE, Teacher of Vocational Agriculture, Glenwood City, Wisconsin

Wayne G. Koene

Does the effectiveness of conducting summer programs in vocational agriculture have any relationship to the overall value of the entire vocational agriculture program in the community? The answer to this question is a definite "YES" according to results of a recent study by the writer.[1]

Approximately half of the two hundred sixty vocational agriculture instructors in Wisconsin were selected randomly to serve as sources for this study. These instructors, as are all vocational agriculture instructors in Wisconsin, were required to submit two copies of their summer program plans to the state office.[2] The first copy is submitted in Spring and indicates the number of days the instructors *intend* to devote to various summer program activities such as supervision of farming programs of both all-day and out-of-school students (young farmers and adult farmers), summer conference, fairs, workshops, FFA leadership activities, public relations, summer school, vacation and other activities normally engaged in by vocational agriculture instructors in summer months.

The instructors in the sample were given a rating by three state supervisors of vocational agriculture based on the instructor's performance in conducting an effective over-all program of vocational agriculture. The ratings given to the instructors were "A", "B", and "C".

Forty-three instructors were rated in the "A" or top category, fifty-one instructors were given the middle or "B" rating, and thirty-six instructors were rated "C".

The conclusions based on the study were:

1. A direct relationship was found between the number of days the instructor devoted to making farm calls during the summer to his all-day, young farmer, and adult farmer students and his performance rating. The highest rated instructors ("A") spent an average of 31.8 days at this activity whereas the "B" rated instructor spent an average of 29.7 days making farm calls and the "C" rated instructor spent 22.9 days for this summer activity.
2. When the number of farm calls planned was analyzed, the difference between the three groups also had significant gaps.

It was found that the "A" group planned 146.3 farm calls, the "B" group planned 127.1 calls, and the "C" group planned 89.5 calls.

3. Another activity analyzed was that of departmental work in the summer months. This consisted of all the activities engaged in by the teacher in his office during this time including taking inventory, ordering supplies, filing teaching materials, preparing audio-visual teaching aids, completing records and reports.

Because the "A" rated instructors spent more time making farm visitations, it was not surprising to find that they spent the least amount of time engaged in departmental activities, 10.2 days. Conversely, the "C" group spent the most time in the office, 12.0 days. The middle ("B") group spent 11.4 days in the office working on departmental activities described previously.

4. Most vocational agriculture instructors also are involved in fairs during the summer, be it county, district or state fairs or all three. Many are also involved in FFA or NFA conventions and workshops. Some instructors participate in camping trips with their agriculture classes or FFA or NFA chapters. The study found no significant difference between the time devoted to these activities by the three groups of instructors.
5. Professional improvement activities during the summer months among the vocational agriculture instructors had a definite relation-

[1] Wayne G. Koene, "The Relationship of Summer Programs Upon the Effectiveness of the Total Vocational Agriculture Program in Wisconsin." Thesis, M.S. 1963, University of Wisconsin, Madison, Wisconsin.

[2] State Board of Vocational and Adult Education, Madison, Wisc.

ship to the effectiveness of the instructors in the community. The "A" rated instructors had 34.9% of their group participating in some form of summer professional improvement activities, mainly short sessions ranging from ten to twenty days.

The "B" group (fifty-one) instructors had 13.7% of their group attend these activities while 19.5% of the "C" group were engaged in any form of professional improvement.

6. It was interesting to note that the more experienced instructors tended to devote a greater amount of time to making supervisory farm visits to their students and other farmers than did the less experienced instructors. The range for this activity extended from 23.8 days for instructors with one to four years experience to 34.5 days to instructors with over twenty-five years experience.

This seemed to indicate that as the agriculture instructor gained experience, he recognized the value of farm calls as being increasingly important to his performance in conducting a program of vocational agriculture in the community.

The activities of the summer months are extremely important to the total vocational agriculture program in all the communities offering this education to the rural youth. Summer months should not be neglected in the vocational agriculture program for it is during this time that the agriculture instructor can be very effective with their students in relating the concepts and skills taught during the school year to actual farm situations. □

Table I

AVERAGE DAYS SPENT IN SUPERVISION OF FARMING PROGRAMS BY VOCATIONAL AGRICULTURE INSTRUCTORS

Group	All Students	Students Served: High School	Young Farmers	Adult Farmers
A	31.8	20.8	4.1	6.0
B	29.7	21.4	3.4	4.8
C	22.9	16.9	1.8	4.4

Rao K. Parker

Utah Studies Future Farmer Fund Raising Activities

RAO K. PARKER, Teacher of Vocational Agriculture, Weber County High School, Ogden, Utah

High school principals, FFA advisers and FFA chapter presidents in the 46 departments of Vocational Agriculture in Utah were questioned regarding their fund-raising activities. Following are findings and conclusions based upon their responses to questionnaires and a review of literature made by the author.

The study indicated that the fund-raising activities most acceptable to principals were: dues, chain projects, feeding projects, production projects, constructing hotbeds and cold frames, pruning fruit trees, dances, landscaping farmsteads, concession stands, controlling grubs, and repair and construction of shop projects.

It was the opinion of principals surveyed that the following activities were least desirable: mutual insurance companies, school supplies sales, roadside markets, magazine subscription sales, rat poison sales, loaning money to members, raffles, boxing and wrestling matches, fire extinguisher sales, candy sales, butchering hogs, newspaper drives, and donkey basketball games.

The study showed further that the activities most acceptable to instructors were: dues, automatic dispensers, chain projects, landscaping farmsteads, farms owned and rented, calendar programs, production projects, repair and construction of shop projects, dances, concession stands, feeding projects, controlling cattle grubs, and dipping sheep.

The majority of the instructors surveyed were opposed to the use of raffles and magazine subscription sales.

Chapter presidents rated as least desirable the following activities: mutual insurance companies, selling hotbed plants, plays and entertainment, butchering hogs, hatching eggs in chapter incubators, treating seed for farmers, mixing minerals for farmers, newspaper drives, school supplies sales, magazine subscription sales, and selling labor of chapter members.

There were no activities which the survey indicated the majority of chapter presidents opposed.

Conclusions

Every chapter should raise a sufficient amount of money to meet the needs of its budget. The budget should be based on the program of work of the chapter.

A chapter should not raise more money than is actually needed to carry out its program of work. Different chapters will vary in the amount they need, depending on how extensive the programs of work are. The average amount needed is about $4.50 per member.

Fund-raising activities should be selected on the basis of sound criteria. The following list is recommended:

a. It has educational value.
b. It provides leadership experience.
c. It is related to agriculture.
d. It is approved by the school and community.
e. It renders a desirable service.
f. It provides for fair financial returns.
g. It provides for the participation of all or nearly all members.
h. It provides desirable experience in business.
i. It helps to develop cooperative abilities.
j. It contributes to the objective of vocational agriculture.
k. It is acceptable to established businesses.
l. It does not exploit teacher or pupil time.
m. It creates little or no risk of losing money.

Chapters selecting new methods of raising funds which they have not

tried before should be careful to seek the advice of experienced people in the schools and communities.

It is wise to avoid overdoing selling activities. People become disgruntled with persistent callers selling various articles. This could bring criticism to the whole Future Farmer program.

Chapters should correlate their fund-raising activities with other organizations in the school, otherwise ill-will may develop. An example of this was when the Weber chapter and the Weber High School band, both located at the same school in Ogden, Utah, sold the identical brand of candy at the same time.

It would be unwise for a chapter to sell some article at a cut-rate price in conflict and competition with local merchants.

The use of dues is considered the best single source of raising funds. It should not be the only method used, however. Excessive dues are looked upon with disfavor by members and parents and will kill interest in the chapter.

Chain projects, feeding projects, and production projects are very desirable fund-raising projects. They are particularly good because of their educational value and the challenge they provide for chapter members in becoming more proficient in farming.

Dances are popular social activities in Utah. When they are sponsored and promoted by chapters, they can be a major source of income.

Automatic dispensers when properly cared for and supervised are one of the easier ways of raising money. They are not educational, however.

Turkey shoots, rodeos and fairs, car washing, and dances are activities which provide a certain amount of social entertainment, and are the type of activities which provide for the participation of all or nearly all of the members. They are particularly well-liked by the chapter members.

Landscaping farmsteads, repair and construction of shop projects, constructing hotbeds, and pruning fruit trees are the type of activities which rated particularly high with principals and instructors. These activities provide practical agricultural experience as well as opportunities for raising funds.

A mutual insurance company is considered a poor method for a chapter to raise money. Others considered poor are: selling school supplies, selling magazine subscriptions, newspaper drives, boxing and wrestling matches, butchering hogs, and vaccinating hogs and calves.

Chapter sweetheart contests where the sweetheart is selected by popular vote and a voter must pay a certain fee for each vote are not recommended. These contests tend to exploit certain individuals and cause ill-feelings.

Raffles should not be used, particularly where certain forms of their use violate the law. □

Indiana Teacher Retires After 44 Years of Service

PHILLIP TESKE, Teacher Education
Purdue University


Ray S. Bundy

July 13, 1964 was a memorable night in the life of Ray S. Bundy, "Dean of Indiana Vo-Ag Instructors." More than 250 adults, young farmers, FFA members, 4-H club members, former students, county fair board members, agri-business leaders, fellow educators, and others offered testimonials and gifts to Ray Bundy honoring him for his services to farm people and agricultural progress during his *44 years as a vocational agriculture instructor—38 of these years as the "Ag Teacher" at Rensselaer, Indiana.* Though young in heart and spirit, Ray had reached the age of 68 years and joined the ranks of retired teachers.

Ray Bundy received his B.S.A. degree in 1920 and his M.S. degree in Agricultural Education in 1949 from Purdue University. More than 49% of his vo-ag students are successful farmers today, with an additional 13% successfully employed in occupations related to farming.

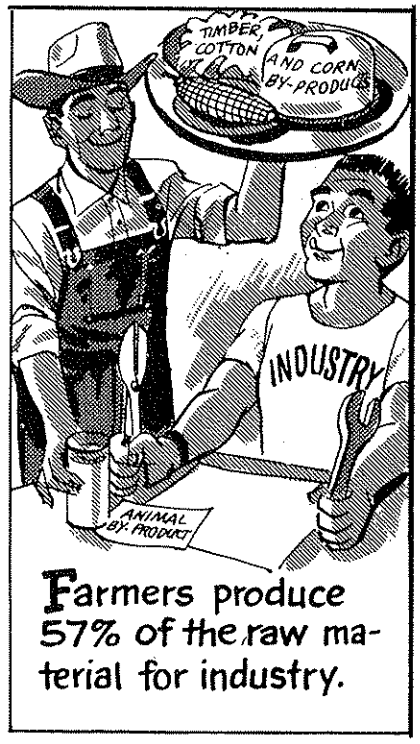
Ray Bundy was one of the first vocational agriculture instructors in Indiana to conduct adult farmer evening classes. More than 60 FFA members of the Rensselaer Chapter have attained the State Farmer Degree, with seven of these being awarded the American Farmer degree. Many of his former students have held offices in the FFA at the district, section, and state levels. For his contributions to the Future Farmers of America, Ray has been awarded the Honorary Hoosier Farmer degree, and was awarded the Honorary American Farmer degree at the 1964 National FFA Convention. □

Program Appraisal

(Continued from Page 142)

4. Are the goals established adequate to reach the objectives?
5. What are the needs of the community in the field of agricultural education?
6. How adequately does the current educational program meet these needs?
7. To what extent is the department reaching its objectives?
8. What changes are needed in goals and objectives?
9. What additional activities should be instituted? What activities should be discontinued?
10. Are there better ways of doing various activities?
11. Are available resources being used satisfactorily?
12. Are adequate resources available for conducting the program the community needs? What is needed?

Much of the dynamics and power of the vocational agriculture department is the result of community responsibility and participation in its work. In order to use community resources wisely and effectively, the teacher must foster constant evaluation and program development based upon this evaluation. □



"Blessed is he who has found his work; let him ask no other blessedness." Thomas Carlyle.

Evil events come from evil causes; and what we suffer, springs, generally, from what we have done.

—ARISTOPHANES

N.V.A.T.A. News

James Wall
Executive Secretary

The "Coffee Hours" sponsored by NVATA for student teachers attending the National FFA Convention and for Advisors attending the FFA and NFA conventions were attended by about 200 trainees and 250 advisors at Kansas City and 100 at Atlanta. Thirty-four states were represented in Kansas City. R. L. Smook, Vocational Agriculture Instructor, Rock Hill, South Carolina, won the door prize at the Kansas City advisor's Coffee Hour, a slide projector, was donated by The National Agricultural Supply Company.

* * * * *

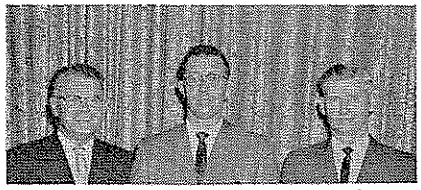
NVATA President Walter Bomeli, James Wall, Executive Secretary and Floyd Johnson, NVATA Past President, were named to Honorary Membership in Alpha Tau Alpha, during the recent FFA Convention. Stanley Richardson of Utah is president and O. E. Thompson of California is secretary-treasurer of the organization.

* * * * *

The following recommendations have been adopted by the FFA Boards of Student Officers and Directors on integration of the FFA and NFA.

1. States concerned should set up State Committees to study and work on the problem of merging the NFA with the FFA.
2. Have professional Negro educators serve as consultants at meetings of the FFA Board of Directors.
3. NFA members, meeting the qualifications of the National FFA Constitution, will begin FFA membership, at comparable degrees, on July 1, 1965, where administratively permissible, and in accordance with approved State Plans for Vocational Education.
4. The last National FFA Convention will be held not later than October, 1965, for presentation of final awards and for completion of the merging of the NFA and the FFA.
5. Selected former NFA officers, or members, should attend the 1965 National FFA Convention for special activities which will be held in connection with the merging of the two organizations. □

News and Views of the Profession



The 1964-65 Officers of the Vocational Agriculture Teachers Association of Texas are (l to r) E. A. Roquemore of Arlington, Secretary Treasurer; Waylon R. Carroll of Monterey High School in Lubbock, President and M. S. Hammack of Ferris, Vice-President. The officers are a part of the thirty-two man board of directors which will direct the activities of the 1000 member organization during 1964-65. The association maintains a full-time office in Austin, and Alton D. Ice serves as Executive Secretary of the organization.

Dr. Charles C. Drawbaugh joined the Graduate School of Education, Department of Vocational-Technical Education, Rutgers—The State University as Assistant Professor of Education on July 1, 1964.

Dr. Drawbaugh is a native Pennsylvanian and a former teacher of vocational agriculture in that state. He will teach graduate education courses and advise graduate students in the master vocational agricultural program.

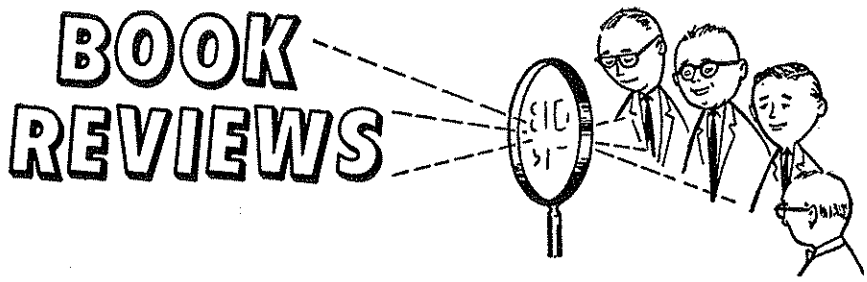
Dr. A. J. Paulus Retires

Dr. A. J. Paulus, of the University of Tennessee and special Editor, retired after 27 years of service. He has won wide recognition during his career not only for the teaching materials he has published, but also for the poetry he has included in his publications.

Paulus has prepared more than 40 different publications for teachers, and has edited "Hog Profits for Farmers."

Dr. Paulus, a native of Ohio, enrolled at Cornell University to earn Master's and Ph.D. degrees in agricultural education. He spent four years on the faculty of Clemson College and four more years with St. Thomas College. In 1937 he came to U-T at Knoxville to promote the publication and use of teaching materials.

When some 100 turned out for a reception in honor of the retiring professor he learned that friends have contributed sufficient funds to publish a booklet of the many poems he has written. □



Raymond M. Clark, Professor
Agricultural Education
Michigan State University

PRACTICAL SOIL SCIENCE. M. N. Nicol'skii. Translated from Russian by the Israel Program for Scientific Translations, 14 Shammai St., Jerusalem, Israel. P.O.B. 7145. 1963, 240 pp., price $9.00.

This is a fairly technical book on soil science dealing with the morphology of soils, soil mapping, and the compilation of a soil map, methods of determining the physical properties of the soil, chemical methods of soil investigation, methods of determination of exchangeable cations and of the absorption capacity, determination of soil acidity, and water extracts. The book deals primarily with soils of the European section of the U.S.S.R. It would have its major value in departments of vocational agriculture at the technician level in area vocational schools or community colleges.

HUNGER SIGNS IN CROPS. Howard B. Sprague, Editor in Chief, Third Edition. David McKay Company, Inc., New York, New York. 1964, 461 pp., plus xxi. Price $15.00.

Teachers of Agriculture and others interested in Agronomy will recognize this as a new edition of a book which first appeared in 1941 and which was revised again in 1949. Since the second edition appeared much has been discovered about visible signs of nutrient deficiencies in economic crops. This information has been incorporated in the new text through changes in the text itself, new illustrations, both in black and white and color, and through the addition of three new chapters on forages, small fruits, and sugar crops.

Many of the chapters have been completely rewritten so that they represent nearly completely new chapters so far as content is concerned. The text is very well illustrated with color plates and black and white photographs contributed by experiment stations and industrial organizations throughout the country. Twenty different authors have contributed to the revised edition of the book.

Teachers of Vocational Agriculture at both the high school and the post-high school levels will be interested in securing copies of this book for their libraries. It should be a valuable reference in any department of Vocational Agriculture in the country.

Raymond M. Clark
Michigan State University

SOILS OF THE SOUTHWESTERN PART OF THE KOLA PENINSULA. Polyntseva, O. A. Translated from Russian by the Program for Scientific Translations, 14 Shammai Street, Jerusalem, Israel. P.O.B. 7145. 1962. 135 pp., $6.00.

This book is primarily one of classification of soils as indicated in the title. A soil map of the area is presented together with an analysis of the origin of the soils and the factors which have been responsible for the development of soil types appearing in the area. The material is confined, for the most part, to uses of the soils for agricultural purposes. However, it is recognized that the use of the soil for agricultural purposes is closely related to the development of the area as an industrial section of the country.

Teachers of Vocational Agriculture who are interested in classification of soils may be interested in a copy of this book. It will also be of use in the study of soil science in area vocational schools and in the departments of soil science in land-grant colleges.

Raymond M. Clark
Michigan State University

EDUCATIONAL MEDIA INDEX, Vol. 9, Industrial and Agricultural Education. McGraw-Hill Book Company, New York, New York, 1964. 235 pp., $5.00; with supplement, $7.00.

This is one volume of a set of 14 volumes on the Educational Media Index. Each volume contains a subject key for all volumes; descriptive entries; title index; and a source address list. Included are references cataloged as film strips, phonotape, flat pictures, phonodisc, video-tape, programed instruction material, slides or transparencies, models, mock-ups, etc., film or kinescope, course media kits, charts or maps. The book is very well coded indicating such items as length of films, date of production, levels of instruction and many other items of importance to the teacher in selecting suitable instructional materials. The subject key classifies items under 100 major subject areas.

This is one of 14 volumes produced under contract between the Educational Media Counsel and the United States Office of Education. It is planned to issue a supplement each year to bring the materials up to date. The total set is available from the McGraw-Hill Book Company at $62.45 or at $79.95 including the 1965 supplements. Teachers, administrators, teacher trainers and others will be interested in securing appropriate copies for their respective fields of work.

Raymond M. Clark
Michigan State University

HANDBOOK OF SCHOOL LAW, Bureau of Educational Research, College of Teacher Education, New Mexico State University, University Park, 1964, $3.50.

Over 500 cases relating to school law are cited by authors, Dr. L. E. Leipold and Dean Donald C. Roush, of the NMSU College of Teacher Education. The publication includes cases and considerations concerning pupil personnel legal problems, parental contacts with the school, and teacher and school board relations. References are included which encompass: The American Legal System, Powers and Duties of the Board of Education, Personnel Administration, Liability of School Districts, Liability of School Employees, Taxation and Finance, Religion in the Public Schools, and Race Segregation in the Public Schools.

J. D. McComas
New Mexico State University

AGRICULTURAL COOPERATIVES: STRENGTH IN UNITY, Jewett, Alyce Lowrie, and Edwin C. Voorhies. The Interstate Printers and Publishers, Inc., Danville, Illinois. November 1963, pages xii + 139. Price $3.75.

The book is made up of 26 chapters dealing with different aspects of the cooperative organization, including principles, and operation at both the production and consumer levels. Types of cooperatives are described including those that serve as bargaining agencies, those that supply farmers with goods and services and those that serve consumers of many kinds of products. Principles of cooperative organization are related to the Rochdale Principles and application of these principles to the modern farmer cooperative is explained. Other chapters deal with pooling, securing certificable quality, taxation, and the organizational operation of farmer cooperatives.

The book should be a valuable addition to the libraries of departments of vocational agriculture both for use at the high school level and at the adult farmer level.

Raymond M. Clark
Michigan State University

SCIENCE AND EDUCATION, Thomas Huxley, (General Editors Gadobert D. Runes and Thomas Kiernan). Philosophical Library, New York, 1964. 381 pp. Price, $7.50.

This book is a compilation of some of Huxley's writings in science and education. The compilation includes a wide variety of writings and speeches dealing with science and education and particularly in many areas in which we are currently involved. For example, one of the articles deals with "Emancipation—Black and White." Still another item deals with "Technical Education," and another is titled "Address on Behalf of the National Association for the Promotion of Technical Education." Dates of these writings range from 1854 to 1884. Teacher educators and those preparing to teach in the vocational education fields will find this an interesting book as a reference. It would be suitable for advanced high school students for general reading, but would not provide specific subject matter to train students for occupational endeavors.

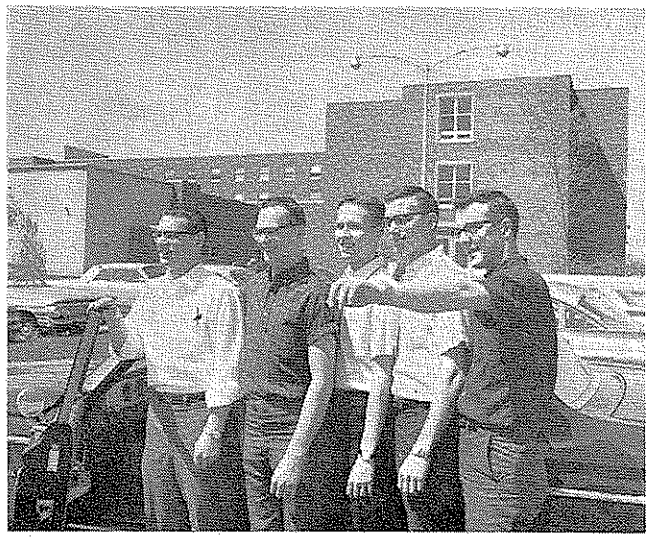
Raymond M. Clark
Michigan State University

FARM AND PERSONAL FINANCE, John Brake, et al. Published by Interstate Printers and Publishers, Danville, Illinois, 68 pp.

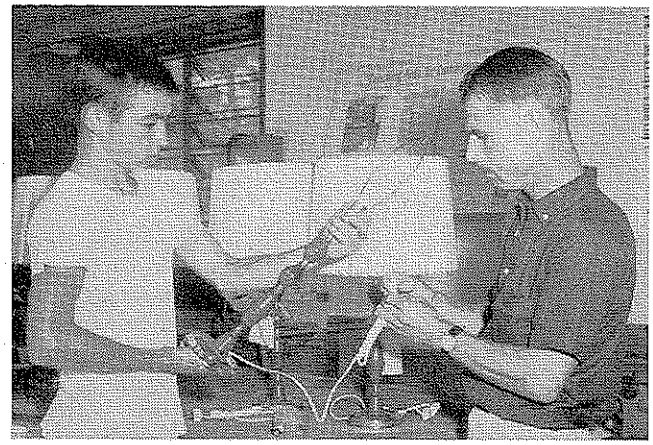
Publication of "Farm and Personal Finance" which was reviewed in the October 1962 issue of the Agricultural Education Magazine has been taken over by Interstate Printers and Publishers at Danville, Illinois. Teachers and others interested in use of this publication in their vocational agriculture classes are advised to contact Interstate for price and educational discounts.

Raymond M. Clark
Michigan State University

Stories in Pictures



A group of 3 Michigan State seniors in agricultural education visited the department at Ohio State University this spring. A similar delegation from Ohio State later returned the visit.



An FFA camper at South Carolina's State FFA Camp learns how to make a lamp under the direction of a South Carolina teacher.

Texas Future Farmers are shown grading market steers in a practice judging session.

Students of the Milton Union (Ohio) Vo-Ag class, as a part of their training in Agricultural Engineering, overhaul some farm equipment brought in by one of the members.