

CHALLENGES TO LEADERSHIP IN AGRICULTURAL EDUCATION

IN THE GOLDEN SIXTIES*

By

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*Journal of the American Association of
Teacher Educators in Agriculture*
Volume 1, Number 1, pp.1-9
DOI: 10.5032/jaatea.1960.01001

ADJUSTMENTS TO BE CONSIDERED

First it seems clear that a search must be made for ways and means of more extensive utilization in teaching of pertinent technological developments in agriculture. Last year the Federal Government spent over \$30 million on agricultural research. This was matched more than three to one in the states. The fruits of this research are being harvested and placed on the educational market at an ever increasing rate. You are well aware of how important these ever accelerating advancements are.

Many of our leaders are studying this problem of adjusting instruction in agriculture to new technology, and are telling us about what they are finding. For example, in a recent issue of The Agricultural Education Magazine two studies that are related to this problem are reported. Thompson of California studied the extent to which farmers made use of advice from agricultural businesses for fertilizer recommendations. On finding that only one-third of the farmers surveyed knew the kind and amount of fertilizers to use he raises the question whether a better job could be done in teaching fundamentals of soil and plant nutrition to farmers and sons of farmers. It is axiomatic that their teaching cannot extend beyond their own knowledge. Deyoe of Illinois reports that, of 30 selected teachers he interviewed, the more enterprising ones were conducting local surveys, making use of a wide variety of sources for keeping abreast of developments, and studying opportunities for establishment in farming. Teachers' number one problem, as reported to Deyoe, was "acquiring the 'know how' about recent changes in agriculture," and second was securing up-to-date references and teaching aids.

Many states are working out effective means of narrowing the subject matter gap. These include in-service conferences, short courses, workshops, and graduate courses, previews of new publications, and preparation and dissemination of recent informational releases to name only a few. A recent development in Michigan may be of interest here. Our Department of Information Services of the College of Agriculture decided that dependence on published bulletins alone for new subject matter is too slow for this jet age. So for the past two years there have been fewer new bulletins, but these are being supplemented by what are called Fact Sheets of more current, newer technical information. After two years of trial with county staffs of the Cooperative Extension Service these are now also being made available without charge to all teachers of vocational agriculture in Michigan who have requested them.

The related problem, that of acquiring the "know how" haunts teachers as they try to up-grade their instruction to develop deeper and broader understandings of the applications of science and technology to farming. These understandings are essential undergirdings of agricultural practices taught. Vocational agriculture must include instruction in greater depth. Teachers in the "golden sixties" will need a higher grade of instruction at the university before entering teaching than their predecessors have had. This will have to continue indefinitely with teachers in service,

*Prepared for delivery at the annual convention of The American Association of Teacher Educators in Agriculture, American Vocational Association Convention, Los Angeles, December 8, 1960. The original text has been edited for publication in the AATEA Journal.

A third quality that should be built into programs is application of instruction at the high-school level to a wider variety of occupations. Most teachers emphasize in their teaching those managerial abilities and cultural and mechanical skills that have relevance to the operation of farming enterprises, and presumably for the occupation of farming. But studies such as those by Clark and Kennedy in Michigan, Hoover in Pennsylvania, Thompson in California, and others show that there also is a wide variety of other occupations represented by employers who would like workers who are proficient in certain farming abilities and agricultural understandings. The implication, then, is that when students are taught farm practices they should be led to discover the application of these practices to a variety of the occupations in which these agricultural understandings and abilities are needed. Examples might include: feeding practices that should be understood by the feed dealer and sales person; fertilizing recommendations and practices that a farm supplier should know; and abilities needed by farm credit agents to judge soil and to analyze a farm business.

This brings us to the fourth adjustment for which ways and means should be found. It is the greater utilization of students' farming programs for guidance and instruction. One of the more widely accepted principles in the selection and planning of farming programs is that the enterprises and the activities selected should be those found in the type of farming represented on the home farm and/or in the type of farming in which the young man hopes to engage. You and I subscribe to this principle for the young man who is farming, or who hopes to farm. But how adequate is this principle for those who start thinking about other agricultural occupations, as many of them might well do?

There has been some pretty loose thinking about these occupations; their designation and their nature, and the relation of vocational agriculture to them. While it is desirable to unfreeze resistance to change and open minds for new ideas, we should be realistic in determining what is a rational position to take. Whether or not you consider the stand I take is sensible, you are entitled to know what it is.

It is now quite clear that in many businesses, professions and industries involving products from, and supplies, services and education for farmers it is either desirable or essential that the worker be experienced in farming and have an understanding of some of the subject matter of agriculture. One of the purposes of vocational agriculture, then, should be to provide those experiences that (1) will aid students to set suitable career and educational goals in agriculture; (2) will give students a background for advanced and/or specialized instruction in agricultural science and technology; and (3) will develop those understandings of agriculture appropriate to be taught in the secondary school, and that are likely to contribute to the subsequent occupational success of the individual. As has always been true, the basis for good vocational agriculture is supervised farming programs. Supervised farming programs, selected and planned in line with the students' past experiences and career goals, should be the core of these experiences. Some examples may help to show how farming programs may be modified or expanded to this end.

Let us suppose that a young man is considering teaching agriculture, agricultural extension, or related professions. Experience in a large variety of enterprises is essential for success. If the livestock enterprises on the farm where he is gaining experience include only beef and swine in a state where dairying is important on most farms, and sheep and poultry on some farms, somehow he must gain some operational experience in these latter enterprises. Teacher educators would agree that they are constantly confronted by the inadequate farming experience of many of the university students enrolled in preparatory programs for teaching. If these young men's interest in an educational career could have been identified while in high school these gaps

in their experience could have been filled by more diversified programs on their home farms and/or placement for farm experience on another farm. This would be particularly important for the increasing number of youth whose parents are farming part time, and thus have only a few home-farm enterprises.

We might find another young man from a small farm who shows aptitude and interest in farm mechanics and who thinks he might consider a cooperative occupational training program to prepare for farm machinery sales and service, probably at the post-high school level. Such a cooperative program cannot provide for experience in the field operation of machinery. But, if such experience is highly desirable it could be obtained through placement on a larger, highly mechanized farm or on a school land laboratory where a youth could gain this more extensive experience.

A student who lives in a cash crop farming environment, but who is somewhat interested in becoming a farm veterinarian certainly should determine whether he likes to work with livestock, and to gain experience in handling farm animals. Such a student could be encouraged to have as wide a variety of livestock projects--albeit on a small scale--as his farm situation will permit; he could thus meet farmers' livestock problems in their natural setting and learn to solve some of them through instruction in vocational agriculture.

These examples indicate four criteria for the selection of farming programs that may enlarge and amplify the experiences and understandings that are basic for off-farm occupations having agricultural attributes or connotations.

1. The activity provides new or additional experiences that will have exploratory value for the guidance of the student.
2. The activity includes those enterprises that involve experiences that are important in the occupation toward which the student is aiming or which he is considering.
3. The activity provides practice to develop those abilities that will help a person to succeed in an off-farm occupation of an agricultural nature.
4. The activity is related to the course of study being followed by the class.

While it might not be possible to meet all these criteria in every case, one or more should be met, depending on the occupation in view and the farm situation.

Of the many adjustments, then, that are needed for vocational agriculture in the "golden sixties," and for which ways and means of implementation should be devised, I have named four: bring about greater utilization of technological developments; put greater depth into teaching through greater emphasis on the scientific understandings undergirding agricultural practices; apply instruction in agriculture to a broader range of occupational goals; and make greater use of farming programs for guidance and experiential background. If a discussion were to be carried out on these adjustments it could move this thinking forward to reveal many other adjustments, as well as ways and means so that vocational agriculture might become more dynamic, challenging, and personally more significant and exciting to youth.

PROBLEM AREAS FOR CONSIDERATION

An important problem area is the incomplete or distorted image of agriculture in the minds of school counselors, other educators, many parents and the general public. The colleges of agriculture are greatly concerned about this because of the widening gap caused by increasing agricultural career placement opportunities in contrast to decreasing enrollments of students majoring in agriculture. All of us are aware of school administrators who have been misled on the importance of vocational agriculture through misinterpretation of statistical data on trends and the error of thinking of farming and agriculture as synonymous.

It is interesting to note, in passing, that the U. S. Bureau of the Census considers farming and agriculture as more or less synonymous. On the other hand, the Bureau of Labor Statistics, which annually publishes the Occupational Outlook Handbook used 14 pages in its 1959 edition to list and describe the agricultural occupations other than farming, all under the chapter title of "Agricultural Occupations."

Much needs to be done to create a truer image of agriculture, and in many states there is much progress. In Michigan we have made a start. We have given wide distribution to several documents. One of these is "Four Fallacies About Agriculture" by Dr. C. P. Wilson, Director of the School of Agriculture, Kansas State University. Another is a brochure, "A Look at Agriculture in Michigan" prepared under the auspices of the State Curriculum Committee on Agricultural Education, which is a state advisory committee. This committee also prepared and gave wide distribution to a pamphlet to aid school counselors to work with teachers in vocational guidance in regard to agriculture.

There is also a need to present a truer image of vocational agriculture. The most significant thing we have done in Michigan in the past two years is the publishing and dissemination of a statement of beliefs. This is in the form of a pamphlet setting forth the philosophy and objectives of vocational agriculture as developed cooperatively by the state consultant staff and the teacher education staff and useful in helping create a truer image of vocational agriculture. The state consultant staff has worked with many school administrators in state and regional conferences using this statement.

We have accepted opportunities to speak to teachers in university-based guidance institutes preparing to become school counselors. We have endeavored to give a true picture to graduate students majoring in administration and in guidance. We have conducted and reported research to discover much-needed information on agricultural businesses, industries, services, and professions. Teachers of agriculture have been encouraged to pitch their instruction to a broader occupational base and to teach occupational information about agriculture.

If the AATEA is looking for a worthwhile project I can think of no better one at the moment than that of recreating a truer image of agriculture and of vocational agriculture in the minds of educators and the general public.

The second problem area to which I would call your attention is that of devising new types of instructional programs, of trying them out, and of installing them in schools and community colleges, including those that have never offered vocational agriculture.

Agricultural educators have sometimes been inclined to rationalize the failure of local boards of education to maintain or install vocational agriculture by implying that administrators are obtuse or lack vision, that college admission requirements are too academic, that many schools are too small, that much of the land is of marginal character, that urbanization has taken place, or that other factors are

the cause. But if we approach this with imagination it would seem that more experimental programs could be devised and tried out. We need not wait for word from Washington. Actually, experimental programs have been encouraged by the Federal office for some time.

The Midwest Airborne Television project financed by a \$7 million foundation grant will get under way experimentally next month. By September it will be providing instruction to an estimated half million school pupils in parts of six states. There is no instruction provided in agriculture. Should there be? People in many fields have been experimenting with teaching machines. Is there a place for these in agriculture?

On a recent visit to one state I inquired of a man in a position of leadership what was being done in that state to prepare for the training of technicians in agriculture. His immediate reply, thinking of the N.D.E.A., Title VIII, was, "Nothing. The Federal office says, 'There is to be no program because there are no technicians in agriculture.'" On the other hand a committee in another state, working with representatives of fruit growers, processors and distributors has been told by these representatives that they do, indeed, employ technicians. Is the best answer to be found through bureaucratic authority or through well designed research on the question? Dr. George Brandon, who has conducted much research on technicians in industry says that on the basis of his studies and what is known about the nature of the work of technicians there is every reason to believe that there are technicians in agricultural production, business, and industry. Assuming that this be true, what would happen if financial support were to be made available to start programs for training technicians in agriculture? If leaders in industrial education were the only ones who had had experience and had done research in this area the answer is rather obvious. What should leaders in agricultural education be doing?

Dr. Walter Cocking, retired editor of The School Executive (now Overview) and himself an experienced administrator of schools maintaining programs of vocational agriculture, in a recent talk to a graduate class of the speaker's made this statement: "Vocational agriculture is at the crossroads. Either it will adjust its objectives and programs to the dynamic and rapidly changing occupational complex or it will gradually recede or be crowded out by programs that are so adjusted." The implication that I draw from his statement is that onto the solid, sturdy root stock of vocational agriculture must somehow be grafted the vigorous branches that will reflect the new values, understandings and skills demanded in the agricultural segment of our dynamic economy, and that will promote renewed growth and productiveness.

The third major problem area to which I would call attention is the vocational guidance of the more able and talented youth in our rural areas. Of course, all of these who are interested in farming and for whom there can be found opportunities should be guided to make a beginning and advance in farming. But this will not take all of the talented. Many more farm youth of high potential are needed in colleges of agriculture to prepare for careers in agricultural technology, agricultural engineering, agricultural businesses and professional services. Teachers of agriculture today need to be much better students than those of a generation ago. The quality, the impact of programs of vocational agriculture on the rural economy and social life, yes even the continued existence of these programs will depend on the success of our profession in attracting to it the best minds and personalities from among colleges of agriculture.

WHO SHOULD BLUE-PRINT THE FUTURE OF VOCATIONAL AGRICULTURE?

As diligent and devoted teacher educators, we have been trying to do better our assigned task of preparing, and professionally educating the teachers of vocational agriculture for whom we are inescapably responsible. We have done this by passing on the heritage of over 50 years of development of know-how possessed and exemplified by the more successful practitioners. But successful operation according to formula sometimes has taken precedence over creative planning and teaching. State consultants have tended, too, to be pre-occupied with operations. They, and we as teacher-educators often have been the ones to whom teachers have turned for mapping of programs and prescription of practices in teaching vocational agriculture. If teachers have failed to exhibit creativeness, ingenuity, and the experimental approach to development of new and promising departures what is the reason? Is it because few among us have opened their minds for new ideas? Have we really encouraged them to be daring, or have we urged them only to stick to the tried and tested procedures?

Man in his life passes through five stages, of which I will comment on three. During youth he flexes his muscles. He is daring and willing to try his hand at a variety of activities. He is vigorous and ambitious. Youth is a time when new ideas are embraced and experimented with. As man reaches maturity he grows in self confidence and in a feeling of self assurance and accomplishment that follows realization that the courses of action selected were good. His morale is high, and there is concentration on the carrying out of ideas of suitable ways and means to attain commonly accepted goals. Middle age, however, is a period when habits tend to become fixed, and one becomes stubborn in his resistance to change.

If we can liken vocational agriculture to man, in which stage is it today? Does vocational agriculture still have youth, vigor, and daring? Is it characterized by emphasis on operation of the safe and sane? Is it already showing signs of aging that inevitably might lead to senility and retirement? To what extent are the characteristics of vocational agriculture in the sixties a reflection of what the leadership in the profession does? Let us face these questions with perception and candor. Have we adequately described the role of vocational agriculture in the sixties and are we fully aware of how vastly different this is or should be from the role of vocational agriculture of the twenties?

Another characteristic of middle age or old age is the tendency to hold on to possessions and become stubborn in resistance to change. A youth is not so concerned if he is deprived of some possession or privilege. He takes on something else. So, I ask, have the leaders in vocational agriculture after forty-five years now become overly "protective. Programs, policies, and principles have recently come under scrutiny, and sometimes justifiably so. Have leaders, then, tended to bolster threatened positions and go on the defensive when they should come to grips with criticisms in a re-examination of what they are doing, taking a fresh look at new needs and new demands in order to chart better programs?

Who is blue-printing the future of vocational agriculture? I am challenging the young men of this profession and the "middle-aged men" who are young in mind and spirit because I believe they are the ones to do it.

RESPONSIBILITIES IN EDUCATION OF FUTURE LEADERS

If the questions just raised were fully explored one would soon be aware that somewhere there is a responsibility for selecting and educating the future leadership in agricultural education. And, of course, the members of the American Association of Teacher Educators in Agriculture must accept a major share of this responsibility. If this is

so let us start by considering, in addition to the attitudes I have mentioned, some of the attributes that might be envisioned in future leaders in the field of agricultural education. I will mention four.

First, these leaders will need a broader understanding of the principles, programs, and program planning procedures in all of vocational education and the practical arts than leaders of the past. The methods of financing or reimbursing programs have created rather artificial barriers - sometimes even called high fences - around what we think of as the fields of vocational education. But a possessive attitude - "this is vocational agriculture, this is distributive education" - will only be a handicap. For example: rural development--or resource development if you will--for people in economically depressed and sparsely settled areas of our country calls for leaders who know how to work with a variety of agencies, institutions and citizen groups to develop a variety of programs to aid them to make a better living. The programs cut across several of what have become traditional fields. The people whom they are designed to help, however, care little what labels are put on these programs. This has been impressed especially on those who have worked in other countries as consultants on vocational education.

The preparation of rural youth of this country for entry and advancement in off-farm occupations having agricultural attributes necessitates the cooperative work of agricultural educators and business and industrial educators. They will need to speak a common language and be able to cooperate in research studies and in outlining the substantive elements of training programs.

I submit that leaders in the several fields of vocational education have not always been able to speak a common language. This has been impressed upon me rather dramatically as a result of an experience during the past year. About eighteen months ago the Michigan State Board of Control for Vocational Education made a grant of \$75,000 for a three-year study to evaluate vocational education in the state. The study was launched with the naming of four task forces. I found myself as chairman of the one on philosophy and objectives of vocational education. We have members from the teacher education and consultant staffs from the four fields, as well as administrators and other general professional educators. Eight all-day meetings have been held to date, in addition to many meetings by committees organized by members of the task force. We have a statement of objectives of (total) education, but are still trying to come to agreement on the meaning, nature, purposes, process, and expected outcomes of vocational education.

This experience of trying to get a group of people like this to come to grips with objectives and processes that are common to several fields of vocational education has been a revelation to me. People in business education almost never have spoken of "vocational" education, even though they are engaged in it. The home economics education people use the term largely to connote a reimbursable program, yet differences in outcomes of these programs compared to non-reimbursed programs are difficult to find. People in trade and industrial education often tend to use the term synonymously with vocational education. Administrators maintain that all school subjects contribute to occupational competency, so they want to know what is vocational education.

It has become increasingly clear that the leaders in the several fields of vocational education just have not known as well as they should how to talk to one another and to other educators about vocational education as a totality. They need to become better able to work with other educators to improve the entire program of education at all levels, and including vocational education.

The discussions which our task force has held are remarkable not so much because of documents produced as for growth of the members in the development of a philosophy. I would wholeheartedly recommend this adventure in hard thinking to other states. It might not be a bad thing on a regional or national scale.

Turning to the second attribute of leaders of the future let us say that competency is needed in the interpretation of social, economic, and educational trends, and in the determination of the implications of these trends for vocational education. If we agree that one learns what he practices let us be quite specific here and suggest that the future leader should have practice in the identification of trends from data, and in finding data to substantiate or refute alleged trends. He should then practice the drawing of implications for vocational education from them. He could well start with the 55 trends so well substantiated at Purdue by Professors Woerdehoff, Nelson and Coster. These trends were ranked by vocational educators in all fields; by economists, sociologists, and educational philosophers; and by representatives of management and labor. Students in one of my graduate courses have done this, and they say this is the most revealing and rewarding activity of the course. This is one way in which we "stretch" potential leaders and help them to gain educational stature and vision.

The third attribute follows from what I have just been saying. The future leaders in agricultural education will need a broad preparation base, with advanced study in sociology, economics, psychology and communication arts. Sociologists have made many important contributions, including the identification of types of farmers according to their adoption of approved farming practices; analysis of occupational aspirations and expectations of youth with related factors leading to a better understanding of vocational development; and, with the assistance of psychologists, the improvement of processes for working with groups and role identification. Many of us have been impressed with what teacher educators at North Carolina State College have done in the application of principles of rural sociology to community study in the undergraduate training program of teachers of agriculture. Their success in this is an outstanding example of a cooperative project between education and a related discipline. We need more of this.

The last attribute to be mentioned is the possession of understandings and competency in international education. I do not need to remind you that the future freedom and prosperity of this country is intimately tied to that of the rest of the free world, and that the responsibilities in vocational education in underdeveloped countries are very great. You and I are committed to the belief that education is the most effective means of helping people to help themselves. Teaching people how to teach others the vocation of farming so as to improve their living ranks high as a needed activity. Some of us have had opportunities to work with educators in other countries. These opportunities will increase. For example our own institution now has university contracts with I.C.A. or with private foundations in seven different countries in Asia, Africa, and South America, and has over fifty faculty members at work in these countries. Many of the teachers in our states are now or will be working in technical assistance programs. All of us have been involved in working with educators from other countries who are flocking to our universities and public schools in increasing numbers. How well prepared are we to understand these people and the cultures from which they come? Have we been successful in sensing their needs and in helping them to meet these needs? Do we know how to demonstrate that learning is for doing and not for cold storage? Have we the ability to communicate to them the philosophies of education in this country, and the ways in which educational programs are affected by these philosophies and our own culture?

If we are to make significant progress in answering these questions perhaps one of the real needs may be for a national center to prepare leaders in agricultural education

for their role in international education. I am not aware that any university is now doing this on a broad scale although some are working at it. Some means should be found for up-grading all of us in this respect.

These, then, are some of the attributes that should be possessed by leaders in the golden sixties. It should be a challenge to the membership of this organization to assist those who have leadership potential to develop these qualities.

In the more than three-and-a half decades during which I have been privileged to be associated with this profession many problems and difficulties have been experienced. None have been more perplexing and challenging than those that lie ahead in this decade. But the strength, the spirit of service, and the devotion to ideals made manifest by the members of this profession have not been surpassed by any comparable group. As I look down the road ahead I have an unshaken faith that the leaders of the future will, through their vision, zeal, and concern for human betterment, lead us to greater heights of professional cooperation and usefulness.