

TEACHER EDUCATION FOR THE FUTURE*

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Three major problems or questions are presented by teacher educators in agriculture from east to west and north to south. Furthermore, they are vitally concerned and involved in seeking answers. These problems or questions are: (1) What new programs are needed in agricultural education on the secondary and 13th and 14th year level?; (2) How can we organize, plan, conduct and finance research which will provide answers relative to future programs in agricultural education?; (3) How can we recruit and adequately prepare able students for future programs? Let it be understood that these questions do not imply there is no research or planning for the future. However, the attitude does prevail that the accomplishments are too little and too late. Teacher educators are interested in new programs in agricultural education. They feel confident that they can make a contribution in planning and developing future programs. Finances, personnel and time are limiting progress.

Areas for Program Development

A few of the areas under consideration involving study, research and pilot or developmental programs are briefly listed below.

The present vocational agriculture program needs up-dating. Farm mechanics skills, livestock and crop production continue to dominate and consume much of the instructional time. The teaching of mathematics and science in high schools has been stepped up. In fact, the instruction in these courses has moved ahead of agriculture. The teaching of farm management needs to be greatly improved. Orientation and guidance should be given far more consideration. The science in agriculture or scientific agriculture needs to replace some of the how-to-do-it instruction. Overall, the quality of instruction should be greatly improved. Well-planned, organized developmental programs well distributed in a state could do much in upgrading instruction in the present vocational agriculture program.

A few states are involved in research to determine or demonstrate scientific principles in the teaching of agriculture. Work will continue on this with emphasis on the science content and how it can be integrated into the agricultural instruction. Horticultural programs in high school are receiving more attention than any other development in the teaching of agriculture. A few schools have had such instruction for a number of years. Now more states are taking much interest and moving into horticultural instructional programs. And, well that we should, because of the rapid development of this field.

* Some of the content resulted from visits in 19 states and universities while on sabbatic leave.

Another area of exploration and investigation is the occupations in agricultural businesses and especially those in sales. Several individuals believe this involves agricultural and distributive education. Many of the small rural schools have agricultural instruction but no distributive education. Pilot or developmental programs are being designed for rural areas. Preliminary thinking is to use an agricultural teacher who would take course work and education in distributive education.

The service occupations in agriculture are being given some thought and study. To date, no one appears to be greatly excited. Yet, here is an area that needs study. Factual information is inadequate, so research and developmental projects are needed. We find other areas such as marketing and purchasing in much the same situation. Research is needed to establish the occupational opportunities, the number within an area, the duties and responsibilities, the level at which and by whom training will be provided.

One state has been teaching a course in agricultural occupations at the ninth grade level. A second project initiated last year is the teaching of a broad course in occupations in vocational education. Emphasis is placed on exploration, opportunities and requirements for entry.

Area vocational schools have developed to a limited extent at the high school level and more so in the 13th and 14th year. Area schools at the 13th and 14th year have been in existence in states ranging from one to fifty years. There is much interest, discussion, study and some research designed to improve present programs and implement new ones. With the increase of technology in agriculture, the need for vocational education will become greater. Thus, increasing the need for these schools. Factors that favor the expansion and development of vocational education on an area basis at the 13th and 14th year are: (1) a large number of students so that instruction can be provided for a number of occupations, (2) students will be more mature and ready for vocational training and, (3) students are more likely to have a vocational goal.

Briefly summarized, we are seeking answers that will give direction to the kinds of agricultural instructional programs for those who will (1) farm, (2) enter off-farm agricultural occupations, (3) go on for further education in agriculture, or (4) receive value as a general education. We have much yet to do in developing agricultural experience programs that tie in with group instruction in school.

Need for Research in Agricultural Education

It is recognized and established by many that we do not have adequate information to chart our course and develop new programs in agricultural education. At present, trial and error take over in many states, while in others there are planned research programs. But we still do not have research findings to justify and support the promotion of new programs in certain areas of agricultural education.

A few people are critical of the research that has been done. It is true that we do not have a large number of significant studies that help to

plan new programs in the future. Significant research requires a long period of concentrated study and work. Adequate money to finance research has not been available so that individuals could spend much of their time on research. Money that has been available has financed small projects and on a limited basis. Graduate students have been slow to become highly specialized in research because very few universities have employed research specialists.

The situation is changing. Agricultural education departments are receiving more but limited money to finance research. Research personnel are being employed. This is taking place to a greater extent in these colleges or universities: Maryland, V. P. I., North Carolina State, Georgia, California (Davis), Nebraska, Iowa State, Illinois, Purdue, Penn State, and Cornell. (These were visited while on sabbatic. There are others that are involved in research.) It is expected that the work of the AVA Research Committee will make some contribution to the improvement of the situation. Money should be available from the new vocational education bill. Those interested in developing research must be alert and aggressive.

We should continue our efforts to obtain substantial financial support for research. Employment of researchers who will be assigned time for research and on a long-time basis would be a big leap forward for many agricultural education departments. California and Purdue have received sizable sums of money for research. North Carolina State recently employed a man to conduct research. Cornell, Penn State, Iowa State, have had projects financed from Agricultural Experiment Station Funds. V. P. I., Arizona and Nebraska have Agricultural Education staff members with a part of their salaries paid from the Agricultural Experiment Station. Manpower Development and Cooperative Research funds have been approved for research on a very limited scale.

In summary, let me leave these comments. We need to conduct research to get the information needed on which to plan and develop new agricultural education programs. We can't plan programs on what has been. Further improvement in research ability should be developed in graduate students. Then qualified personnel should be employed to conduct research.

Education of Teachers for New Programs

New instructional programs must have qualified teachers. On the other hand, we must know the new programs and the knowledge and competencies needed to teach before developing teacher education programs. The number of teachers specifically trained and able to teach in new or developing programs will be limited. As indicated earlier, good teachers of agriculture in the field who have demonstrated some ability in the new area will be employed. Teacher educators will have responsibilities in providing additional education or arranging for education and technical agriculture courses. This may be done in short courses, in summer school, or in the school year.

The kinds of programs will vary from state to state and within states. Teacher education in states with varied agricultural education programs will become a problem. Certification regulations and curricula lag behind the

need. Uniformity has been established so deviations will be resisted. Yet, there must be flexibility in certification regulations and agricultural education curricula. More responsibility will need to be given to teacher educators and the responsibility assumed for developing and recommending qualified individuals.

Multi-teacher programs and area vocational schools will continue to increase, depending on school reorganization and finances available. As this develops, teachers can become more specialized for the subjects they teach. This may lead to majors in certain subject matter departments adding courses for certification to their program of studies. This will necessitate close cooperation between teacher educators and technical agriculture staff. Or another route could be for the agricultural education majors to pursue graduate programs in selected technical agriculture departments and with a minor in agricultural education.

One of the greatest changes in our field will be the student teaching experience. It is obvious that horticultural teachers should do student teaching in a school where horticultural subjects are taught and not in centers located in dairy, corn and hog or wheat farming areas. So, new instructional programs in the schools and teacher education and student teaching should move forward together. Many will recognize that this is easy to say but difficult to implement.

Recruitment of Teachers

Very few states have an adequate supply of teachers of vocational agriculture. This is a major problem. The acute shortage of qualified teachers is downgrading the program in many schools. A few states have had the shortage for a number of years. It is just now coming to a number of other states. For example, one state had 34 student teachers one year ago. This year, there are 16 student teachers. To my knowledge, only Texas has a substantial surplus. The shortage will continue and become even worse. With the passage of the new vocational education bill, the problem becomes even more critical.

Why is there a shortage of teachers? One of the major reasons is the increased employment opportunities for college of agriculture graduates. Over the last two decades, the employment opportunities have increased by "leaps and bounds." Some people do not believe there is a shortage of college of agriculture graduates. They can find employment in many fields rather than being limited to teaching and a few other fields. Foreign assignments are opening and they will increase in number. Briefly, other causes are: the image of agriculture, the image of vocational agriculture, the emphasis on math, science, etc., the influence of the academic and scientific personnel in high school and college, teacher morale, students delay the making of a choice of a vocation until they enter college and then, they learn of the great number of employment opportunities.

Students select a professional career while in high school or in college. The trend is to delay the choice until college enrollment. Then, juniors and seniors have not selected a career. Students say, "Oh, I don't have to worry; there are many jobs or I can get an assistantship and do graduate work." Even

though we may not like it, many of us will find it necessary to interest students in teaching agriculture. In fact, we may need to develop a recruitment campaign. No single activity will suffice.

Teachers of agriculture may and can be very active recruiters. This is true in several states but not true in others. The teachers are faced with a number of problems. Guidance counselors have much influence on choices of colleges by students. Some of the best students in high school do not take vocational agriculture. In spite of this, the teachers of agriculture can be one of the best sources of help.

Teacher educators will become more and more involved in recruiting students in high school. We have depended upon the written word to carry the message to students and their parents. The results have been disappointing and ineffective for the most part. Personal contacts have been more effective than written communications. Teacher educators and supervisors will find it rewarding to personally contact high school students. Some of the ways this has been done are listed below.

1. Visit students in high school and in their home. Parents have a great influence, so visits with them are helpful.
2. Meet and talk with students at State FFA Convention.
3. Meet and talk with students at FFA camps, leadership meetings, etc.
4. Meet and talk with students at FFA banquets.
5. Make contacts with students at college or career days or nights.
6. Talk with students at district FFA meetings, contests, etc.

In a few states, agriculture is taught in junior colleges or the first two years in a four-year college. Many of the students transfer and continue in the college of agriculture. This has been a good source for agricultural education majors. Personal visits with the staff in these colleges to present factual information can be effective in soliciting their support. They can inform good students of the opportunities. Also, personal contacts with students will do much to develop in them an interest in the teaching of vocational agriculture.

Recruitment at the college or university level must become much more effective. Here is the place where many choose their professional career. It is recognized that the competition for students is very keen even though it is done in a very indirect, yet effective way. Faculty advisers are sensitive to the proselyting of students. We have an obligation to let the students know the facts. Then, they must make their choice.

The college administration should have all the facts on the supply and demand for teachers. It is to the college's interest to have good representatives in the high schools of the state. The administration can directly and

indirectly support activities that will help to inform college students.

The whole process of recruitment in colleges is becoming more complex, involved and difficult. Yet, somehow we must be effective in making the teaching of agriculture attractive and acceptable to college students.

Methods used by agricultural education staffs in the colleges are briefly listed below.

1. Present information on the teaching of agriculture in freshmen orientation.
2. Work with and through the director of resident instruction and student advisers to develop an understanding of the acute shortage of teachers and explore ways to meet the demand.
3. Work with the director of resident instruction and advisers of students to explore and work out double majors. Students would major in a department and meet certification requirements.
4. Indirectly get an invitation to talk at a meeting of the agricultural fraternities.
5. Advise and assist the agricultural education club in conducting open house to which general agriculture, new students, and others are invited.
6. Solicit the assistance of the agricultural education club or Alpha Tau Alpha Chapter in making contacts with other students in college to inform them of the opportunities in teaching agriculture.
7. Solicit the help of upper classmen in agricultural education courses in counseling with other college of agriculture students.
8. Develop plans to get agricultural education majors involved in recruitment in high school. As college students participate in such activities they become more interested and enthusiastic.
9. Contact interested men who have a degree in agriculture. More and more we find students completing work for a degree and then meeting certification requirements in the fifth year. This is a source of teachers that should not be by-passed in our efforts.

The recruitment of teachers is a big task and one that will require a large amount of thought, effort and time. For some of us, there is no alternative. We must plan a recruitment program and make it work for us. An adequate supply of well-qualified teachers of agriculture would do more to raise the level of instruction in vocational agriculture and to develop good departments of agriculture than anything else that can be done.