This issue of The Journal presents another in the series of "debate the issues" articles authored by leaders in agricultural teacher education. The focus is on the location of teacher education programs in agricultural education: Should they be limited to land-grant universities? The authors are Curtis R. Weston, University of Missouri-Columbia, and Joseph E. Sabol, California Polytechnic State University. The editor welcomes reactions from readers about this special feature. Suggestions for future debates will be welcomed.

TEACHER EDUCATION PROGRAMS IN AGRICULTURE SHOULD BE LIMITED TO LAND-GRANT UNIVERSITIES

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Almost without exception, the land-grant colleges or universities have the largest staffs and the best resources for training instructors of vocational agriculture. This statement will be defended in this article solicited by the Editor of The Journal. It is a known fact that of the 76 institutions training instructors of vocational agriculture, over two-thirds are administered in colleges of agriculture. As reported by Binkley (1977) "Those programs administratively located in colleges of agriculture have an average of slightly over six full-time faculty members." If an institution has a college of agriculture, it in all probability is a land-grant university. Knebel (1977) states that, "Historically, teacher education in agriculture traces its origin to departments of agricultural education administratively located in colleges of agriculture in most land-grant institutions and a few other prominent state universities."

Three pieces of legislation passed by the U.S. Congress dictate the location of three very important agricultural education functions. These three functions also have a direct bearing upon the subject being debated. The three acts and their functions (continued on page 2)
are: (1) the Morrill Act (1862), which established the land-grant university philosophy; (2) the Hatch Act (1887), which provided for the establishment of the agricultural experiment stations; and (3) the Smith-Lever Act (1914), which established the Cooperative Extension Service. All three of these important functions are identified with land-grant institutions. Universities with the land-grant system have to be in a stronger position to train instructors of vocational agriculture than nonland-grant institutions.

At my own institution for example, a resident full-time professional staff of some 200 persons is available to the agricultural student body for instruction, as well as, top notch student advisement. An agricultural extension staff, of some 150 persons, again enhances the land-grant university setting as a very desirable place to train teachers. The University of Missouri-Columbia houses the Agricultural Experiment Station system, which encompasses the entire state through outlying stations in all four corners of the state. Large acreages and large livestock facilities are again available for field trips and research. The staff in Agricultural Education consists of five professors who devote full-time to teacher education. A group of 8-14 doctoral students is assigned assistantships to help with the teacher education program. An outstanding curriculum development laboratory is available to produce and distribute instructional materials.

Many more opportunities are available to the student body for leadership activities due to many more kinds of student organizations existing on land-grant campuses. We are fortunate in that the land-grant system in Missouri is also a part of the University system and not on a separate campus. We have the total University system for our student body to interact with and become a part of the University community. Not only is the College of Agriculture available but also the College of Education, which creates an excellent setting for training instructors of vocational agriculture.

The critical mass concept becomes important in good agriculture teacher education, meaning that a total program must be available in one setting for an optimum training situation. A good program is not developed by only having a good undergraduate program, or only a good graduate program, or only a good in-service education program. A good teacher education program in agriculture must have all parts of the program, each part enhances and enriches the other. Very seldom do nonland-grant institutions have the critical mass to deliver in all program areas.
Standardization of programs (or the "oneness" of purpose) makes for strong programs, strong professionalism, and concentration of effort. The states that typically have strong professionalism, or 100 percent of the teachers paying NVATA dues, are those states that have the land-grant or one institution training philosophy. Teachers can change schools, order instructional supplies, and use teaching materials prepared by the instructional materials laboratory, and understand the system and where to get help, if they all are trained in the one land-grant institution.

The teacher training staff in most land-grant institutions is only involved with teacher education. This can be contrasted to other universities where the teacher educator may also be the soils professor, animal husbandry professor, or agricultural economics professor. Being a teacher educator is a full-time business if all areas of the program are viable and fully developed. When I speak of doing only teacher education training, I refer to the teaching of methods classes, supervision of student teachers, preparation of instructional materials, doing in-service education for teachers in the field, doing basic research in teacher education, and student advisement. Doing teacher education also includes the time spent with the graduate program. Having the critical mass mentioned earlier attracts capable graduate students, who also can enrich the training at a land-grant institution in the classroom, in curriculum development, and in basic research.

Coordination of in-service education can best be handled from the land-grant institution due to this being the home base of the college of agriculture, the home base of the extension service and the home base of the agricultural experiment stations, as well as home base for the USDA staffs and other agencies.

The probability of exposure of the student body to outstanding agricultural programs and outstanding agricultural staff persons is far greater in the land-grant institution than in the nonland-grant institution, again merely due to size and scope.

The one institution training concept cuts down on the duplication of programs, the duplication of facilities and the high costs of financing teacher training institutions. Only a very few states can justify training in more than one location, and that can be by size or shape of the state, or maybe location of the land-grant institutions or institutions within those states. I doubt that many of us would contend that Texas could get by with the one institution training concept due to the size of the state alone. Students will be at the most not over 200-300 miles from their land-grant institution in most states.
Most state meetings, breed shows and sales, and other important and timely conferences are held in conjunction with the land-grant college, or again if you will, the college of agriculture for that respective state. I believe, as a parent, that if my son or daughter wanted a degree in agriculture, I would insist that they attend a land-grant institution. I have no quarrel with the idea of students doing part of their college work at regional colleges and universities, but when they need to start concentrating on agriculture and on teacher education, they should be enrolled in the land-grant college.

In visiting with state supervisors of agricultural education in states that recently have gone from the one institution to several with teacher education programs, I have found that supervision was much easier and standardization of programs was better when there was only the one teacher training institution.

I contend that in a given college age population, there will be only a certain percent who will want to be instructors of vocational agriculture and more institutions will not solve a teacher shortage. Most of the states that have gone to the multi-institution concept are still plagued with a teacher shortage. It has been my observation at some of the institutions in states with more than one training program, their critical mass has diminished to the point, that staff size has been reduced and, therefore, functions and services to the profession have suffered.

Even with teachers who are trained in nonland-grant colleges in the state where they will teach, they have difficulty adjusting to state programs, securing information, and becoming a part of a total state program in agricultural education. Clientele areas tend to develop around each institution and splintering of efforts and programs tends to develop; whereas, the land-grant institution has the entire state as its clientele.

I would think that a state would like to develop one institution and in turn develop its staff to a high degree of excellence rather than scatter programs over two or three institutions and tend to let them all suffer from inadequate resources. I believe I can safely say that staffs from land-grant institutions tend to become more visible and attend more professional meetings than staff persons from nonland-grant institutions.

I believe enough evidence has been presented to justify the original statement that education programs in agriculture should be limited to land-grant universities. Let me be the first to acknowledge that some very fine programs do exist in some nonland-grant institutions.
References Cited


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TEACHER EDUCATION PROGRAMS IN AGRICULTURE
SHOULD NOT BE LIMITED TO LAND-GRANT UNIVERSITIES

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The major purpose of this article is to focus on the arguments for not limiting teacher education programs in agriculture to land-grant universities. A secondary purpose is to hopefully stimulate some reflective thinking among all teacher educators.

The primary reason for the existence of teacher education departments must be preservice and in-service teacher education. The nationwide shortage of qualified vocational agriculture teachers and high teacher turnover has increased the importance of this mission. The shortage of teachers and turnover rate are also an indication that we in teacher education have not placed enough emphasis upon our primary mission. It seems logical then, that our profession must re-establish our priorities. Perhaps one logical move is to reduce the wide-variety of activities conducted by some of our teacher education departments. This would increase the emphasis upon those tasks which need improvement, i.e., the preparation and in-service education of vocational agriculture teachers.

Cotterman (1943) indicated a response to the question "What is the mission of the department of agricultural education in the..."
land-grant college?" He stated very strongly the mission is more than the training of teachers. Lee in 1975 points to at least three roles for teacher education. Certainly this continuing trend toward increased diversity and size of departments has led to a decreased emphasis upon teacher education within the department. This leads us directly to the arguments in favor of conducting agricultural education activities at nonland-grant colleges and universities.

1. The Agricultural Education Staff Members. The emphasis and expertise of all of the agricultural education staff members in the nonland-grant institutions is in the preparation and in-service education of teachers. They chose to teach. They, as a staff, are not divided in their missions or interests with research projects, scholarly writing and publishing requirements and devotion to an extension education component. Crawford (1977) said it so well when presenting arguments against having extension education as a part of agricultural education. He states, "Teacher educators in agriculture should be the very best teachers in colleges and universities because they have been professionally trained for this assignment." Teacher educators in agriculture must be exemplary teachers, excited and committed to teaching.

Teacher educators at nonland-grant institutions such as California Polytechnic State University, San Luis Obispo, were recruited, selected, and then joined the department in order to prepare young men and women to teach. They were not chosen to conduct research, write scholarly papers or teach extension agents how to conduct 4-H programs!

It would certainly be an error to indicate that a staff member or a department could not develop a strong interest and expertise in both teaching and research or any other function. The point is, when the mission is diversified each of the components cannot receive 100 percent of the effort.

2. The Technical Agriculture Subject Matter Instructors. The mission for teachers of agriculture in nonland-grant universities is also teaching. They have little interest or time for anything but teaching. The courses taken by our future teachers are taught by
instructors who have made their mark in industry, not by graduate teaching assistants who have been assigned to teach an undergraduate class to stay financially solvent while in graduate school. Lark (1979) indicated that many of the teachers at California State Polytechnic University, Pomona, a nonland-grant university, were former vo-ag teachers or were successful in their subject matter fields prior to teaching. These professors make ideal instructors for our teacher candidates.

3. **The Technical Agriculture Subject Matter Courses.** The courses offered at the nonland-grant universities are strong learn-by-doing courses. They have an ideal balance between theory and practice. There are few courses at California Polytechnic State University, San Luis Obispo, which do not have a laboratory class running concurrent with the lecture. The teacher candidates are more than exposed to a topic; they get problem solving, hands-on involvement with it. This is invaluable in developing confidence and shaping their skills during the early teaching years.

4. **Emphasis on Undergraduate Coursework.** The four nonland-grant universities preparing vocational agriculture teachers in California have teacher education as their major purpose. They are not heavily committed to advanced degree programs. Their bread and butter courses are at the undergraduate level. They spend considerable time and effort advising future teachers and recruiting candidates with promise for the teaching profession. The universities have made it possible for majors other than agricultural science/agriculture education to take additional courses to obtain sufficient breadth and pursue a teaching credential. They can meet accreditation standards for teacher preparation as well as a land-grant university.

5. **Facilities, Equipment, and Farm Management Practices.** The nonland-grant universities in California have excellent school farm laboratories designed for practical and modern farming. They are not experimenting in the future
with test plots and "untouchable" research efforts. Students have an opportunity to see and use the facilities, equipment, and farm management practices in their laboratory class sessions. The philosophy of learn-by-doing which they will hopefully adopt as vo-ag teachers is the philosophy they themselves learned in the university.

6. Opportunities for Ownership and/or Cooperative Enterprise Programs. Students at California Polytechnic State University at San Luis Obispo have dozens of opportunities to become engaged in enterprise project programs. Everything from raising garlic to breaking colts and from a cooperative venture with a commercial cow-herd to preserving jams and jellies. The eye-opening, money-making enterprises not only demonstrate many of the principles of agriculture, but also illustrate many of the opportunities to initiate strong supervised occupational experience programs as young teachers.

7. Quality Students. The students who elect to attend a nonland-grant institution develop into strong, dedicated, competent teachers of vocational agriculture. In California, the teachers being credentialed by the four nonland-grant universities have enjoyed much success in being recruited and employed by high schools in the western states, according to R. A. Rogers (1979) at California State University at Fresno. This is the real track record which must be examined. How do these teachers fare in the teaching profession? Perhaps a better author of this side of the issue would be the students, their employers, the administrators, or the department heads who see the end product.

In Conclusion

The perspective from this teacher educator's desk is rather narrow to say the least. It is based upon the observation and personal knowledge of successful teacher education programs situated at four nonland-grant universities in California. There are over 7,000 students enrolled as agriculture majors in these universities. The potential for our teaching profession cannot be neglected.  

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