

CONCERNS OF THE AGRICULTURAL EDUCATION PROFESSION:
IMPLICATIONS FOR TEACHER EDUCATION

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The identification of research development concerns for vocational education was discussed by Lee (1975). He indicated that research and development priorities for vocational education had and likely would continue to focus on the areas of evaluation, accountability and support for programs. During the same year, the Agricultural Education Research Committee of the American Vocational Association charged a subcommittee with determining the perceptions of the professionals in agricultural education concerning current professional concerns. It was felt that a current data base about the concerns of the profession would be helpful to those involved in planning programs and in conducting research in agricultural education.

A study was organized to focus on the perceived concerns of the profession as identified by supervisors, teachers and teacher educators. The specific objectives formulated for the study were as follows:

1. To determine the major professional concerns about agricultural education as perceived by supervisors, teachers, and teacher educators.
2. To determine if there was a difference in the perception of the concerns among the groups.
3. To determine if there was a difference in the perception of the profession among regions of the country.
4. To present a ranking of the major concerns identified and to further categorize the major components used to identify each concern.

A two phase procedure was followed in developing the data gathering instrument. Phase one involved a review of the literature reported from 1968 to the present which related to agricultural education. Included were research study reports as well as committee reports and papers presented at professional meetings. The information was organized into the following major areas: adult education, curriculum development, evaluation, funding,

manpower needs, post secondary programs, teacher certification, teacher shortage and urban program development. In addition, key components or concerns were identified and listed for each major area.

The second phase consisted of asking professionals in the Central Region to list their concerns about agricultural education. These responses were tabulated and compared with the listing of concerns identified from the literature review in phase one. All major areas previously identified were retained and five additional areas were added. In addition, key components were added to the detailed lists prepared for each area of concern.

The questionnaire was then prepared which included a listing of the 14 areas of concern. This was followed by the listing of 93 statements grouped to describe the 14 areas. The questionnaire was mailed to each head state supervisor and teacher educator in the United States as well as to the presidents of each of the state agricultural education teacher organizations. Respondents were asked to rank the listings in each area based on their perceptions of the importance of the statements in the group. The data were based on the responses of 145 usable returns, an 81 percent response rate.

The mean value and standard deviation were computed for each item and an analysis of variance was then computed for each item to determine if there was a significant difference in the responses among the three groups (teachers, supervisors, teacher educators) and among the four AATEA regions (Central, North Atlantic, Southern, Pacific). When differences significant at the .05 level were found, Fisher's LSD Method for Pairwise Mean Comparisons was used to isolate the source of the difference.

Major Concerns

The initial phase of the instrument asked for a ranking of the major areas of concern. The rank order, mean value and standard deviation for these concerns are presented in Table 1. The five areas perceived to be of greatest concern to the combined groups and ranked beginning with the area of greatest concern were as follows: curriculum development, funding, teacher education, teacher shortage and evaluation.

It should be noted that there was a significant difference in mean ratings among the groups for only one of these five areas, that of funding. Teachers rated funding to be of greater concern (mean of 4.06) than did teacher educators (mean of 5.78). There was also only one significant difference found among regions when the

Table 1

THE RANK ORDER, MEAN VALUE AND STANDARD DEVIATION
OF THE AREAS OF CONCERN OF AGRICULTURAL EDUCATORS

Area of Concern	Rank	Mean Value	Standard Deviation
Curriculum Development	1	4.79	3.67
Funding ²	2	4.98	3.56
Teacher Education	3	5.81	3.48
Teacher Shortage ¹	4	6.02	4.46
Evaluation	5	6.42	3.44
Teacher Certification	6	7.37	3.67
Supervision & Administration	7	7.56	3.34
Adult Education ¹	8	8.11	3.57
Manpower Needs ²	9	8.30	3.81
The FFA 1 & 2	10	8.35	3.48
Research ²	11	8.94	3.68
Postsecondary Programs	12	9.00	3.42
Urban Program Development	13	9.76	4.04
Administration	14	9.80	3.64

¹Significant difference among regions at .05 level

²Significant difference among groups at .05 level

five areas of greatest concern were examined. The concern of teacher shortage was of greater concern in the Central Region (mean of 3.39) than in the Southern (mean of 7.45), North Atlantic (mean of 7.56) or Pacific (mean of 5.77) regions.

Of the remaining areas, the mean ratings for the concerns of FFA, research and manpower were found to be significantly different among groups. Teachers differed from both supervisors and teacher educators in their mean rating of concern about the FFA, rating it higher. Manpower needs were rated of greater concern by supervisors than by teachers. And research was rated of greater concern by teacher educators than by the other groups.

Two additional concerns also differed among regions. The mean ratings for adult education were significantly different between the Central and Pacific Regions, between the North Atlantic and Southern Regions and between the Southern and Pacific Regions. The mean ratings of concern about the FFA also differed significantly, with the Southern and Pacific Regions rating it higher than did the Central Region.

Teacher Education. Teacher education in agriculture was ranked as the third highest ranked area of concern by all groups. The rank order of all items listed for teacher education is presented in Table 2. Improving the pre-service education program for teachers of vocational agriculture was ranked as being of greatest concern. It was followed in descending order by items related to identifying teaching competencies and developing model delivery programs; the amount of other education versus agricultural education courses required; and, the amount of technical agriculture courses required. Concerns about teachers for specialty programs and about in-service education were ranked five and six respectively.

Table 2

THE RANK ORDER, MEAN VALUE AND STANDARD DEVIATION
OF ITEMS FOR TEACHER EDUCATION IN AGRICULTURE

Items	Rank	Mean Value	Standard Deviation
Improving Pre-Service Programs	1	3.72	3.07
Identifying and Developing Competencies	2	5.20	3.70
Ag. Ed. Versus other Ed. courses	3	5.51	3.34
Technical Ag Required	4	5.79	3.31
Teachers for Specialty versus Generalist Programs	5	5.99	3.04
In-Service Education	6	6.03	3.30
Work Experience ² & ³	7	6.49	2.90
Student Teaching	8	6.68	3.14
Participation Before Student Teaching	9	7.30	3.43
Teachers for Special Needs ¹	10	8.23	3.16
Utilization of Micro-Teaching	11	8.97	3.24
Standards for Graduate Students	12	10.34	3.16
Teacher Aides	13	10.56	2.94

- ¹Significant difference among regions at .05 level
²Significant difference among groups at .05 level
³Significant difference by interaction at .05 level

It should be noted that there was not a significant difference among groups or regions concerning the six highest ranked items. However, a significant difference among groups was found for the item related to work experience required for teachers. Teacher

educators (mean of 5.60) rated the item to be of greater concern than did supervisors (mean of 7.40). Teacher ratings were more like those of the teacher educators (mean 5.71).

Other Concerns. The highest ranked items for curriculum development, funding, teacher shortage and evaluation are presented in Table 3.

The area perceived to be of greatest concern was curriculum development. Two sections of the instrument related to this area. In the section related to program development, agricultural supplies and services and agricultural mechanics were rated the highest, followed in descending order by agricultural production, horticulture, agricultural products, agricultural resources and forestry. The mean ratings of teachers for agricultural production was higher than for supervisors or for teacher educators. Teachers again differed from the other two groups, giving horticulture a lower mean rating. The mean rating for the Southern Region for agricultural supplies and services was significantly lower than the ratings in the Central and Pacific Regions. The North Atlantic Region identified agricultural resources to be of greater concern than did the other regions.

The second section of the instrument contained items related to how the curriculum in vocational agriculture should be developed. The areas of greatest concern in this area were the determination of a common core of basic skills for vocational agriculture instruction; and, using occupational and task analysis as a basis for curriculum development.

The second highest ranked area of concern was funding. The item of greatest concern under funding related to the lack of a continuing commitment of vocational funds for pre-service and in-service vocational teacher education functions. The next ranked item noted the trend toward the withdrawal of state vocational funds for vocational teacher education. It should be noted that there was not a significant difference among groups or regions in the mean ratings of these items.

The teacher shortage was ranked as the number four concern. The items of greatest concern in this area related to improving the image of agricultural education to attract and retain teachers; and, to the recruitment of potential teachers. The mean ratings for the item related to recruitment differed significantly among groups. Supervisors and teacher educators rated it higher than did teachers.

The fifth ranked concern was the area of evaluation. The item of greatest concern in this area related to the evaluation of the conduct and supervision of occupational experience programs.

Table 3

THE RANK ORDER, MEAN VALUE, AND STANDARD DEVIATION
OF ITEMS FOR SELECTED AREAS OF CONCERN

Item	Rank	Mean Value	Standard Deviation
PROGRAM DEVELOPMENT			
Ag Supplies & Services ¹	1	3.18	1.69
Ag Mechanics ²	2	3.21	1.87
Ag Production ²	3	3.70	2.40
Horticulture ²	4	3.82	1.59
Ag Products	5	4.15	1.71
CURRICULUM DEVELOPMENT			
Common Core of Basic Skills for Instruction	1	2.92	1.91
Occupational and Task Analysis Advisory Committees in Curriculum Development	2	3.61	1.80
Prerequisites for Courses	3	4.03	2.11
Responsibility for Curriculum Development ²	4	4.11	2.31
	5	4.26	1.73
FUNDING			
Lack of Continuing Commitment of Vocational Funds	1	2.38	1.06
State Voc. Funds for Teacher Ed.	2	2.62	1.41
Use of Uniform Quantitative Standards in Higher Education	3	3.13	1.61
Funding by Proposal of Basic Teacher Education Functions	4	3.33	1.78
TEACHER SHORTAGE			
Improve Image of Vo-Ag ¹ & ²	1	3.20	2.43
Recruitment of Students ¹	2	3.72	2.02
Present Supply Situation ¹	3	4.21	2.18
Competency-Based Teacher Ed	4	4.50	2.18
Assoc. Degree Transfers for BS ³	5	5.28	2.22
Low Salaries ²	6	5.57	2.77
EVALUATION			
Supervised Occup. Experience Programs	1	3.99	2.97
Course Content ³	2	4.55	2.62
Using Performance Objectives	3	5.03	3.04
Measuring Program Objectives	4	5.34	2.88
Evaluating Teaching Methods	5	5.67	2.70
Utilizing Evaluation Information	6	6.24	2.69
Laboratories	7	6.38	2.94
Using Individualized Instruction ²	8	6.54	2.96
Follow-up Information	9	6.77	3.48

¹Significant difference among regions at .05 level

²Significant difference among groups at .05 level

³Significant difference by interaction at .05 level

Conclusions

Based on the data reported in this study, the following conclusions may be drawn:

1. The major concerns as perceived by the professionals in agricultural education have been documented. The five areas of greatest concern to teachers, supervisors and teacher educators in agricultural education, ranked in descending order were: curriculum development, funding, teacher education, teacher shortage and evaluation.
2. Teachers, supervisors and teacher educators in agricultural education basically did not differ in their ratings of concerns about agricultural education. The exception noted in the seven areas of greatest concern was in the area of funding.
3. Agricultural educators from the Central, North Atlantic, Southern and Pacific Regions basically do not differ in their ratings of concerns in agricultural education. The exception noted in the seven areas of greatest concern was in the area of teacher shortage.

Implications for Teacher Education

The study was conducted to identify major concerns about agricultural education which would be helpful to program planners and researchers. The groups were asked to rate concerns not research topics. It was felt that it is the role of the researcher to plan the research to impact the needs of agricultural education. The researcher must identify which concerns are researchable and which should be studied within the constraints of the local situation.

Two findings of this study should be emphasized. There was basic agreement of the concerns about agricultural education among teachers, supervisors, and teacher educators and there was basic agreement among respondents from the four regions of the country. It also appears that other vocational education areas share many of our concerns as noted by Lee in 1975. This would suggest that we must disseminate our research so that others can utilize our findings. It would also suggest that it would be appropriate for an institution to select a programmatic thrust for research, thus providing greater depth over time to an area than is often presently the case.

As we utilize the findings of this study in planning programs and conducting research, it seems appropriate to remind ourselves

of the guidelines for research in agricultural education suggested by Hull in 1973. He stated that we must:

1. Emphasize rigor and quality.
2. Develop programmatic research.
3. Search for career development answers.
4. Implement research findings.

References

- Lee, Arthur M. "R and D Product Priorities for the Future: How to Set Them--What They are Likely to Be." A paper presented to the American Vocational Education Research Association, Anaheim, California, December, 1975.
- Hull, William L. "Identifying Research Priorities in Agricultural Education." A paper presented to the Central Region Research Conference in Agricultural Education, Carbondale, Illinois, July, 1973.

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Agricultural education as a part of a total teacher education program in vocational education located in a college of education will have more flexibility in requesting support from the vocational education divisions in state departments of education for teacher education. Likewise, the request for monies to support research and other projects can be better coordinated in a united effort.

A large number of vocational educators need to improve their skill in communicating effectively with others about the work in which they are engaged. This becomes apparent when you consider the lack of dialogue between general educators and vocational educators. Vocational teacher education personnel can best do this on a university campus where they are all located in one department.

At this time in our history, we must find better ways of integrating vocational education into the school curriculum. This can best be done through a department of vocational education, located in a college of education, which has the responsibility for the preparation of vocational teachers in all program areas of vocational education.

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