

POSTSECONDARY AGRICULTURAL FACULTY
INSERVICE NEEDS ASSESSMENT

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Postsecondary education is in a continuous state of expansion in the areas of agriculture, agribusiness, and renewable resource occupations requiring less than the baccalaureate degree. Data, collected from the most recent directory (Mokma, 1978-79) of two-year postsecondary programs, show an increase in the number of institutions offering two-year programs, number of programs offered, adult education enrollment, and full-time and part-time faculty. Teacher educators in agriculture have assumed varying degrees of responsibility for providing inservice education for the faculty of these postsecondary institutions. In general, the potential is much greater than current practice. In an effort to assess the number of agricultural faculty in postsecondary institutions and to identify the kinds of inservice educational activities that may be needed by postsecondary faculty, an ad hoc committee was appointed by J. David McCracken, then President of the American Association of Teacher Educators in Agriculture. The committee examined current inservice practices for postsecondary faculty and prepared recommendations for future inservice activities.

*Dr. Welton served as chairman of an AATEA Ad Hoc Committee which conducted the study on which this article is based. The other authors were members of the committee.

Purposes

The specific purposes of this study were:

1. To determine the number of agricultural faculty in the postsecondary institutions offering agriculture and to identify their educational background.
2. To identify inservice educational opportunities needed by postsecondary agricultural faculty that could be provided by teacher educators in agriculture.
3. To determine the kind and source of inservice programs already available to postsecondary agricultural faculty.
4. To determine the postsecondary agricultural faculty interest in course work.
5. To determine if postsecondary institutional incentive programs exist that encourage inservice education.
6. To determine the coordination status of inservice activities for postsecondary agricultural faculty.

Procedures Used in the Study

This study is based upon information provided by coordinators of postsecondary programs in agriculture, agribusiness, and renewable natural resource occupations throughout the country. Each of these persons received a questionnaire in April, 1979, in which they were asked to provide information regarding inservice activities of the agricultural faculty at their institution. Two follow-up letters were sent to the coordinators. Responses were received from 331 (68%) of the 486 postsecondary institutions with agricultural programs.

Major Findings

Postsecondary institution coordinators reported the number of postsecondary agricultural faculty in each region as follows: Central Region--960; North Atlantic Region--500; Pacific Region--461; and Southern Region--369; for a total of 2,290 persons. Of this number, 57 percent were full-time and 43 percent were part-time instructors.

There were 2,979 general studies instructors in the 331 responding institutions. The number for each region was: Central--620; North Atlantic--400; Pacific--1,191; and Southern--768.

Table 1

MAJOR TEACHING RESPONSIBILITIES
OF POSTSECONDARY AGRICULTURAL FACULTY
BY SUBJECT MATTER AREA

Subject Matter Area	Percent by Region					Total Percent
	Central (N=960)	North Atlantic (N=500)	Pacific (N=461)	Southern (N=369)		
Horticulture, landscaping, greenhouse, and floriculture	10	15	27	20		16
Animal science	9	12	23	15		13
Agricultural economics, business, and farm management	16	2	9	6		10
Agronomy, plant/crop and soil science	7	3	14	13		9
Agricultural engineering, mechanics, hydraulics, machinery, and construction	9	5	7	6		7
General agriculture	6	4	0	10		5

Forestry	1	12	5	7	5
Conservation, natural resources, fish, wildlife, and environment	2	3	3	0	2
Agricultural education	3	0	0	3	2
Combination	0	0	5	0	.9
Veterinary medicine technology	1	0	0	2	.8
Veterans	1	0	0	0	.5
Recreation, parks and ski areas	.8	0	0	0	.3
Other	.8	0	0	5	1
No response	34	44	8	13	28
TOTALS	100	100	100	100	100

Teaching Responsibility of Agricultural Faculty

Table 1 presents an analysis of the major teaching responsibilities of the 2,290 postsecondary agricultural faculty by subject matter area. Several subject areas were used to categorize agricultural faculty subject matter specialties. Sixteen percent of the faculty were reported in horticulture, landscaping, greenhouse and floriculture. This was the highest total percentage for a subject matter area for the four regions combined. In the animal science area, a total of 13 percent was indicated.

Degree Level of Agricultural Faculty

Data summarized in Table 2 show degree levels for the postsecondary agricultural faculty. Nearly 43 percent of the faculty in all regions combined had a master's degree or above. In the Pacific Region, 50 percent of the faculty were reported to have a master's degree, additional course work, or a doctoral degree.

Table 2

DEGREE LEVEL OF POSTSECONDARY
AGRICULTURAL FACULTY

Degree Level	Percent by Region				Total Percent
	North				
	Central (N=960)	Atlantic (N=500)	Pacific (N=461)	Southern (N=369)	
Less than B.S.	7	1	16	2	7
B.S.	10	7	20	25	14
More than B.S.	15	3	6	7	9
M.S.	15	24	30	27	22
More than M.S.	15	9	13	12	13
Ph.D.	6	10	7	9	7
D.V.M.	1	0	0	0	.5
No response	31	46	8	18	28
TOTALS	100	100	100	100	100

Needed Inservice Education

The kinds of inservice education needed by postsecondary agriculture faculty can be seen in Table 3. Coordinators identified assistance in program planning, development and evaluation as the greatest inservice need (61%). Instructional planning was the second highest need identified (54%).

On the basis of the data presented in Table 3, postsecondary agriculture teachers indicated that there was an inservice educational need in topics that relate directly to their instructional program. It should be noted, however, that technical areas that may have been valuable to teachers were not addressed in this study. The study indicated that student related activities were not an area of high interest in the ten inservice activities studied.

Interest in Non-Credit Work

Postsecondary agricultural faculty seem to have a greater interest in non-credit work than graduate credit. Coordinators reported 27 percent of the agricultural faculty in the four regions had an interest in some kind of graduate credit course work. Single-concept workshops were indicated as the desired delivery system for 26 percent of the respondents. Sixteen percent were shown to have an interest in non-credit courses. One possible explanation for this perceived interest is that nearly half the faculty hold a master's degree or above. Postsecondary faculty are generally not under a mandate for permanent certification in order to teach.

Sources of Inservice Programs

A total of 333 inservice programs were reported during 1978-79 in the four regions. Forty-one percent of the programs offered in the four regions were university sponsored workshops. Credit courses accounted for seven percent of the inservice programs in all regions. By combining these activities, universities provided nearly half the inservice programs. The remaining inservice activities were provided by industry, state departments of education, professional associations, and the Cooperative Extension Service, some of which were in cooperation with university faculty.

Incentive Programs

Thirty-nine percent of the institutions responding to the study have an incentive program to encourage agricultural

Table 3

KINDS OF INSERVICE EDUCATION
NEEDED BY POSTSECONDARY AGRICULTURAL
FACULTY AS INDICATED BY COORDINATORS

Inservice Topics	Percent by Region ^a				Total Percent
	Central (N=112)	North Atlantic (N=34)	Pacific (N=69)	Southern (N=116)	
Program planning, development and evaluation	65	56	62	57	61
Instructional planning	58	50	57	51	54
Instructional evaluation	45	56	55	43	47
Instructional execution	46	53	48	36	44
Instructional Management	41	47	38	34	38
School-community relations	32	15	41	35	33
Coordination of cooperative education	35	29	23	19	31
Professional role and development	33	35	41	23	31
Guidance and counseling	29	24	38	19	27
Student activities	29	6	28	24	24

^aPercentages total more than 100 percent because coordinators were asked to check as many topics as were important.

faculty to participate in inservice education. Forty-nine percent indicated they do not have an incentive program. Of those institutions with incentive programs, the most frequently mentioned type was a pay increase.

Coordination of Inservice Programs

Only ninety-two (28%) of the 331 participating institutions had arrangements for someone to coordinate inservice education activities. Of the 92 persons assigned to this coordination responsibility, 35 were postsecondary faculty members, 18 were teacher educators, and 39 were classified as "other." As could be expected, postsecondary faculty are providing a large share of the coordination at their own institutions.

Recommendations

The committee's major recommendations as endorsed at the 1979 AATEA conference were:

1. The AATEA should initiate plans for a National Post-secondary Faculty Development Conference (joint sponsorship by the U.S. Department of Education and the National Center for Research in Vocational Education should be considered) to prepare a representative or team of faculty members from each postsecondary agricultural institution to educate their faculty peers on program planning and evaluation and instructional planning and evaluation.
2. Agricultural teacher education departments should identify a faculty member to serve as a liason with postsecondary agricultural institutions in their state in order to provide organized and systematic inservice programs.
3. Persons developing or providing inservice educational activities for postsecondary agricultural faculty should offer activities dealing with program planning and evaluation and instructional planning and evaluation.
4. Agricultural teacher education departments providing inservice education should continue to provide alternatives to graduate credit work.
5. Additional institutional incentives need to be provided to encourage postsecondary agricultural teachers to secure inservice education.

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