# ADULT EDUCATION IN AGRICULTURE: A NATIONAL SURVEY

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Changes in agriculture, education, and society have occurred at a rapid pace over the decades of the 1970's and 1980's. Naisbitt (1982) reported that a major shift had taken place in the United States which has had a dramatic effect on the economy. He noted that the U.S. has been transformed from an industrial society to an information society. Naisbitt further noted that wealth is now measured more by individual or corporate "know how" than by the extent of capital holdings. This shift has placed information as the most critical, strategic resource to be managed. Those who possess information, yield power in marshalling other resources for entrepreneurial activities.

Adult education programs transfer information in many ways. Programs for adults have focused on the development of skills needed to improve efficiency in production agriculture. Some adult programs have also addressed topics related to the improvement of managerial skills. However, as the number of agricultural producers declined, so has the number of persons interested in production information from the commercial producer's perspective (Drueckhammer and White, 1984).

Although the focus of adult education programs in agriculture has shifted, there remains significant demand among adults for agricultural information (Nur, Birkenholz, and Stewart, 1989). The demand for new information relates to problems facing agricultural consumers, home-owners, gardeners, and concerned citizens. Therefore, the target audience has changed, as well as the information base for adult agricultural education programs (Harbstreit, 1987).

Although there has been a significant decrease in the number of commercial agricultural producers in the United States, production agriculture remains the predominant industry in many parts of rural America. Therefore, many adult agricultural education programs have continued to address the production and management needs of farmers.

Economic, social, and educational changes have also increased the variability among adult agriculture program offerings. Therefore, information was needed to assess the status of adult agricultural education program offerings and delivery systems in the United States.

## Purpose

The purpose of this study was to ascertain the status of adult education in agriculture in the United States. Information about secondary and postsecondary agricultural education programs was also collected to assess the scope of adult programs in relative terms. State supervisory personnel and agricultural teacher educators were surveyed to ascertain their perceptions of adult education programs. Information was also collected to ascertain the perceptions of state agricultural education leaders which may impact the future direction of the National Young Farmer Education Association.

## Method

This study was descriptive in nature. The population for the study included directors of agricultural education and head agricultural teacher educators from each state. U.S. territories of Washington, DC, Puerto Rico, and the Virgin Islands were also included in the population frame. Head agriculture teacher educators from 1862 land grant institutions were surveyed in each state.

A survey instrument was developed and mailed to 53 agricultural education supervisors and 51 teacher educators. Three additional follow-up contacts were employed to encourage responses. Completed instruments were collected from 44 supervisors and 45 teacher educators. The response rate was 83 percent for the supervisor group, 88 percent for the teacher educator group, and 85.6 percent overall.

## Findings

Data presented in Table 1 reveal the scope of agricultural education programs in the United States. The data reflect the responses of supervisors from 43 states and Puerto Rico. Five teacher educators



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supplied data for states which did not have a survey returned by the supervisor. Several of the teacher educator respondents reported they were not able to supply the data requested. Data from Florida and Louisiana was not provided by either the supervisor or teacher educator sample member.

Table 1
Demographic Characteristics of Agricultural Education Programs in the United States

| Characteristic | Number | n |
|---|---|---|
| Number of school districts | 11,170 | 41 |
| Number of secondary agriculture teachers | 9,231 | 45 |
| Number of secondary agriculture programs | 5,852 | 45 |
| Number of secondary agriculture students | 463,945 | 45 |
| Number of postsecondary institutions | 625 | 40 |
| Number of postsecondary agriculture teachers | 997 | 34 |
| Number of postsecondary agriculture programs | 366 | 40 |
| Number of postsecondary agriculture students | 16,074 | 24 |
| Number of full-time adult agriculture teachers | 411 | 42 |
| Number of adult agriculture programs | 1,610 | 44 |
| Number of adult agriculture students | 91,697 | 35 |
| Number of Young Farmer chapters | 837 | 27 |
| Number of Young Farmer members | 18,856 | 26 |

The supervisors reported that there were 5,852 secondary agriculture programs in 11,170 school districts during 1989-90. Therefore, 52.4% of the school districts offered secondary agriculture programs. There were also 9,231 secondary agriculture teachers providing instruction for 463,945 students during the year. There were 366 postsecondary agriculture programs in 625 postsecondary institutions (58.6%) during 1989-90. It was also reported that there were 997 instructors and 16,074 students in postsecondary agriculture programs. There were 1,610 adult agricultural education programs and 411 full-time adult agriculture instructors reported during 1989-90. Although 91,867 adults participated in instructional programs during the year, there were only 18,856 members in 837 Young Farmer chapters for an average of 22.5 members per chapter.

The actual number of programs, teachers, students, and Young Farmer members may be slightly underestimated due to two factors. First, two states did not provide data. Secondly, some of the surveys which were returned did not supply data for each item of information requested. The number of respondents who provided data are reported in Table 1.

Table 2 presents the supervisor and teacher educator priority mean rankings of adult education providers. Respondents were asked to rank each of three alternative delivery frameworks in order of importance. The supervisor group and the teacher educator group reported that the primary provider for adult education in agriculture was the agricultural education program. Agricultural extension was ranked second, and business/industry was ranked third by both groups.

Table 2
Supervisor and Teacher Educator Priority Mean Ranking of Adult Education Providers

| Rank | Provider | Supervisors X | Supervisors SD | Teacher Educators X | Teacher Educators SD |
|---|---|---|---|---|---|
| 1 | Agricultural Education | 1.30 | 0.56 | 1.48 | 0.63 |
| 2 | Agricultural Extension | 1.79 | 0.53 | 1.62 | 0.59 |
| 3 | Business/Industry | 2.79 | 0.53 | 2.76 | 0.54 |

Respondents were asked to describe patterns of funding support for adult education in agriculture available in their respective state. Several teacher educator respondents reported a lack of knowledge of the funding support available. Data presented in Table 3 presents the responses of supervisors, if available. Teacher educator responses were used if a supervisor did not respond to the survey.

Table 3
Funding Support for Adult Education in Agriculture

| Type of funding | Yes | | No | |
|---|---|---|---|---|
| | n | % | n | % |
| Salary supplements for full-time secondary/postsecondary teachers for work with adults | 23 | 57.5 | 17 | 42.5 |
| Salary supplements for teachers assigned full- or part-time to adult education | 17 | 45.9 | 20 | 54.1 |
| Funding assistance for materials, supplies, teaching aids, equipment, mileage, etc., for adult education | 23 | 60.5 | 15 | 39.5 |
| Other funding assistance for adult agricultural education | 11 | 35.5 | 20 | 64.5 |

Slightly over half (n = 23) of the respondents indicated that full-time secondary/postsecondary agriculture teachers received salary support compensation for their involvement in adult education. Seventeen respondents (45.9%) indicated that salary support was available to fund full-time or part-time adult instructors. Funding assistance was available in 23 states (60.5%) for materials, supplies, teaching aids, equipment, mileage, etc., for adult education in agriculture. Eleven states (35.5%) reported that "other" types of funding assistance was available to support adult agricultural education programs. Although a variety of funding mechanisms were reported, state grants and other state agencies were frequently mentioned sources of support.

Table 4 presents the responses of supervisors and teacher educators regarding their perceptions of adult education in agriculture and the National Young Farmer Education Association. Approximately three-fourths of the respondents (72.1% of supervisors and 78.6% of teacher educators) agreed that it would be ideal for every agricultural education program to have an adult component.

Over 90% of both respondent groups reported that discretionary state funds should be used as an incentive for agricultural education programs to include an adult component. Both groups also favored (approximately 80%) requiring preservice agricultural teacher education programs to include coursework in adult education. About half of each of the respondent groups recommended that student teachers only be placed in secondary agriculture programs with an active adult education component.

Respondents from states with active Young Farmer chapter affiliates were asked to respond to three statements. The first statement ascertained whether the Young Farmer program was a viable and worthwhile part of the agricultural education framework in their respective state. Seventeen supervisors and 17 teacher educators agreed that the Young Farmer program was viable and worthwhile. However, 11 supervisors and 3 teacher educators did not perceive the Young Farmer programs in their state to be viable and/or worthwhile.

Both respondent groups agreed that the goals and purposes of the National Young Farmer Education Association were appropriate for what was needed in a leadership organization for adults in agriculture. Twenty-five supervisors and 18 teacher educators indicated their approval of the goals and purposes which accounted for approximately 90% of those responding.

The potential for membership growth received mixed responses from both respondent groups in states with existing Young Farmer programs. Fifteen supervisors and 10 teacher educators expected state membership in the organization to increase over the next five years. Thirteen supervisors and 9 teacher educators did not foresee an increase in membership over that time period.

Table 4
Supervisor and Teacher Educator Perceptions of Adult Agricultural Education and the National Young Farmer Education Association

| Item | Response Group | Yes n | Yes % | No n | No % |
|---|---|---|---|---|---|
| **All respondents** | | | | | |
| It would be ideal for every | SS[1] | 31 | 72.1 | 12 | 27.9 |
| program to have an adult component | TE[2] | 33 | 78.6 | 9 | 21.4 |
| Discretionary state funds should | SS | 40 | 93.0 | 3 | 7.0 |
| be used to support adult ag education | TE | 39 | 92.9 | 3 | 7.1 |
| Preservice programs should include | SS | 37 | 88.1 | 5 | 11.9 |
| required coursework in adult education | | | | | |
| Student teachers should only be placed | SS | 22 | 51.2 | 21 | 48.8 |
| in schools with an active adult component | TE | 23 | 56.1 | 18 | 43.9 |
| **States with Active Young Farmer Affiliates** | | | | | |
| The Young Farmer association is a viable | SS | 17 | 60.7 | 11 | 39.3 |
| and worthwhile part of ag education | TE | 17 | 85.0 | 3 | 15.0 |
| The goals and purposes of the Young | SS | 25 | 89.3 | 3 | 10.7 |
| Farmer organization are in line with needs | TE | 17 | 85.0 | 2 | 10.0 |
| Membership in the Young Farmer is | SS | 15 | 53.6 | 13 | 46.4 |
| expected to increase over the next five years | TE | 10 | 52.6 | 9 | 47.4 |
| Young Farmers should be part of adult | SS | 14 | 58.3 | 10 | 41.7 |
| agricultural education | TE | 13 | 56.5 | 9 | 39.1 |
| It would be positive for my state to have an | SS | 20 | 80.0 | 5 | 20.0 |
| organized Young Farmer affiliate | TE | 16 | 72.7 | 6 | 27.3 |
| State staff time should be committed to | SS | 13 | 56.5 | 10 | 43.5 |
| administering the Young Farmer program | TE | 8 | 38.1 | 13 | 61.9 |
| The goals and purposes of the Young Farmer | SS | 17 | 77.3 | 5 | 22.7 |
| organization are in line with needs | TE | 19 | 82.6 | 4 | 17.4 |

Note. [1] SS = Supervisors, [2] TE = Teacher Educators.

Respondents from states which did not have an active Young Farmer program were also asked to respond to specific statements. Fourteen supervisors and 13 teacher educators (in states without active Young Farmer programs) reported that a Young Farmer chapter should be a part of the adult program of agricultural education in their state. Ten supervisors and 9 teacher educators did not agree that a Young Farmer chapter should be part of the adult program of agricultural education. However, 20 supervisors and 16 teacher educators indicated it would be positive for their state to have an organized affiliate of the National Young Farmer Education Association. Five supervisors and six teacher educators did not perceive positive benefits from having an organized affiliate in their state.

Respondents from states which did not have programs which were affiliated with the National Young Farmer Education Association, were asked if they would be willing to commit staff time to the administration of a Young Farmer program in their state. Thirteen supervisors and 8 teacher educators indicated they were willing to make such a commitment. However, 10 supervisors and 13 teacher educators were not willing to commit staff time to the supervision of a Young Farmer program in their state.

Seventeen supervisors and 19 teacher educators reported that the goals and purposes of the National Young Farmer Education Association were in line with what was needed in a leadership organization for adults in agricultural education. Five supervisors and four teacher educators did not perceive the goals and purposes to be in line with the leadership needs of adults in agriculture.

Supervisors and teacher educators were asked to rank five factors which may have been perceived as limiting participation in the National Young Farmer Education Association. Mean rankings for each factor are presented in Table 5. The five factors were ranked in the same order by both

groups. The factor perceived to be the most limiting was the lack of interest on the part of local teachers. This factor also produced the lowest standard deviation of the five factors examined.

Table 5
Supervisor and Teacher Educator Ranking of Factors Perceived to Limit Participation in the National Young Farmer Education Association

| Rank | Factor | Supervisors n | Supervisors X | Supervisors SD | Teacher Educators n | Teacher Educators X | Teacher Educators SD |
|---|---|---|---|---|---|---|---|
| 1 | Lack of interest on the the part of local teachers | 25 | 1.76 | 0.78 | 18 | 1.83 | 0.86 |
| 2 | Competition from other organizations | 26 | 2.12 | 0.99 | 17 | 2.00 | 0.94 |
| 3 | Lack of interest on the part of state leaders | 24 | 3.42 | 1.44 | 18 | 3.00 | 1.50 |
| 4 | Goals/objectives of organization are out of line | 22 | 3.73 | 1.24 | 16 | 3.69 | 1.01 |
| 5 | Dues too high | 22 | 3.86 | 1.28 | 16 | 4.31 | 0.95 |

Competition from other organizations was ranked second. Remaining factors ranked in priority order were: third, lack of interest on the part of state leaders; fourth, goals/objectives of organization are out of line; and fifth, dues are too high.

## Discussion

Data collected in this study revealed that approximately one-half of the school districts in the United States offered secondary programs in agricultural education. There were only one-fourth as many adult programs in agriculture. Furthermore, there were only half as many Young Farmer chapters as there were adult programs. This would roughly correlate to about one Young Farmer chapter in every 16 school districts in the United States.

There is a similar disparity in the number of secondary and adult teachers in the United States. The data revealed there is about one full-time adult teacher for every 20 secondary agriculture teachers. Also, only about one-fourth of the adult agricultural education programs appear to be staffed by a full-time adult teacher. However, it was evident that many secondary agriculture teachers provide instruction for adults in addition to their full-time secondary teaching responsibilities.

State leaders in agricultural education were relatively uniform in their agreement that adult instruction should be provided through the agricultural education framework. Agricultural extension also appeared to be responsible for providing adult instruction in agriculture. However, with recent changes in funding and staffing patterns in agricultural extension, the level of service provided through that system may diminish in the future. If so, agricultural education may be expected to provide more information or instructional programs for adults in agriculture.

State leaders indicated that business/industry was the least responsible of the three institutions surveyed to provide agricultural instruction for adults. It may be assumed that the commercial objectives of such institutions may interfere with the delivery of unbiased information. Business/industry may be involved in instructional programs for adults to some extent; however, agricultural education and extension appeared to hold the greater responsibility for providing such programs.

Data collected regarding funding for adult programs did not reveal a general pattern of support among respondents. Funding support was commonly provided to purchase materials and supplies, in addition to supplementing of teacher salaries.

Funding for adult agriculture programs was frequently provided on a grant or contract basis through a variety of state agencies. It was also noted that adult education funding was sometimes channeled through a state agency other than the agricultural education framework. Adult education in agriculture was limited to certain types of institutions (e.g., community colleges) in some states.

Clearly, there is significant variability among the states with regard to the level, source, and recipients of funding support for adult education in agriculture.

There was widespread agreement that every agricultural education program should have an adult component. State agricultural education leaders agreed that discretionary funds should be used to support educational programs for adults in agriculture. Also, there was agreement that preservice agricultural teacher education programs should include required coursework in adult education programming.

There was significant support for the National Young Farmer Education Association. Most notably, the goals and purposes of the national organization were viewed as appropriate for leadership needed by adults in agriculture. Several states anticipated an increase in Young Farmer membership over the next five years.

There was some interest in developing affiliates of the National Young Farmer Education Association in states where it did not exist. Two major factors to consider in the expansion of NYFEA is a perceived lack of interest on the part of local leaders and the unwillingness to commit staff time to supervision of the programs. Although state leaders supported adult education in agriculture in principle, the level of commitment did not equate to the support provided for secondary programs.

## Conclusions/Implications

The following conclusions were developed as a result of this study:

1. Adult education is an important component of agricultural education.
2. Most adult education programs are conducted by teachers who are not full-time adult agricultural educators.
3. There is a wide variety of funding support for adult agricultural education programs.
4. Courses in adult education should be required in preservice agricultural teacher education programs.
5. Each state should be encouraged to organize affiliates of the National Young Farmer Education Association.
6. State leaders should be encouraged to commit staff time to administer the Young Farmer program.
7. Inservice workshops should be conducted to encourage teachers to provide adult instruction in agriculture and supervise Young Farmer programs.
8. State and national leaders should investigate opportunities to work cooperatively with local organizations in developing the leadership skills of adults in agriculture.
9. State leaders should be more proactive in support of adult education in agriculture.

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