

IOWA ADULT FARMERS' PERCEPTION
OF THE VALUE OF EDUCATIONAL PROGRAMS

Keith L. Smith
Assistant Professor

Department of Agricultural Education
The Ohio State University

Alan A. Kahler
Professor

Department of Agricultural Education
Iowa State University

Introduction

Adult education is receiving increased attention from educational planners and implementors. Recent studies have revealed that there exists a large number of full and part-time teachers, administrators, and supervisors of adult education programs throughout the United States. According to Hartsock and Copeland (1979), more than 150 national groups and thousands of state and local groups were sponsoring some form of education program for adults in 1978. They estimated that more than 50 million adults had participated in these programs.

In recent years, educators (Crawford, 1969; Stadlman, 1973) have been calling for increased emphasis on adult education programs, particularly for meeting the educational needs of young and adult farmers. These educators pointed out that magazines, television, newspapers and radio were used by farmers to solve their problems but were inadequate in meeting the educational needs of young farmers. To meet the needs of these agricultural workers, they suggested formal instruction that presents the latest knowledge in technical agriculture relevant to the problems farmers were confronting. In such a setting, proper interpretation and use of the technical information could be provided as it related to specific problems farmers were attempting to solve.

The need for educational programs for farmers was observed by Pearce (1964) when he pointed out that instruction on relevant agricultural topics was particularly essential for beginning farm operators who were becoming established in farming. Other researchers have noted that the success of adult and young farmer programs has been directly related to how relevant instruction is to real-life problems, interests and needs of participants.

Instruction in successful programs dealt with topics important to the operation of the farm business (Bode, 1967; Neylan and Verner, 1966).

Objectives

The purpose of this study was to determine factors which influenced participation of adult farmers in educational programs and factors which may have influenced changes in farming programs of the participants. Specific objectives were to:

(1) determine the level of participation in educational programs by Iowa farmers, (2) assess the Iowa farmers' perception of the value of selected educational factors, and (3) relate current educational factors to agricultural, economic and social conditions of selected Iowa farmers.

Procedures

Research Design

The research design was descriptive and utilized survey methodology. The study was longitudinal and replicated research done by Crawford (1969). The research included the collection of data through interviews.

Population and Sample

The population of the study was all Iowa adult farmers. The sample in this study included 219 Iowa farmers who were studied by Crawford (1969) in 1968. The Crawford sample was drawn by using multistage stratified cluster sampling of the five economic areas of Iowa. The areas were the Western Livestock, Cash Grain, Northeast Dairy, Eastern Livestock and Southern Pasture areas. Once these areas (clusters) were identified, four counties (clusters) in each of these economic areas were randomly selected. Within each of these counties, three townships (clusters) were randomly selected. All farmers who lived within these randomly selected townships were then interviewed, if they were deemed eligible. Eligibility was established by positive reaction to statements asked to determine if the respondents were engaged in production agriculture and if they had been respondents in Crawford's original study.

Instrumentation and Data Collection

An instrument for collecting data was developed using the 1968 instrument as a model. The interview schedule was divided into two major parts. Form I was used as a screening sheet to determine the eligibility of those farmers contacted, as in Crawford's study.

Form II contained several sections for obtaining data on the background, current farming status (acreage, net income, type of operation and level of establishment), involvement in educational activities, leadership participation and personal views of the respondents regarding farming. Of particular interest were the perceived values farmers held of educational activities. The methods used to determine values consisted of having young farmers rate factors on a scale where 1-3 was of little value, 4-6 was of some value, and 7-9 was of much value. Data were collected through personal interviews. Interviewers were trained at Iowa State University prior to conducting the interviews.

Data Analysis

The data were analyzed using means and one-way analysis of variance ($p=.05$). Scheffe's test was employed to determine significance between pairs of means in tests involving more than two means.

Findings

Participation

Compared to the findings reported by Crawford (1969), the respondents in this study had participated more extensively in educational programs in 1978 than in 1968 (Fig. 1). However, further analyses disclosed that approximately two-thirds of the 1978 respondents had not participated in young or adult farmer meetings conducted by high school vocational agriculture teachers. Conversely, approximately 90 percent of the respondents had participated in programs sponsored by commercial companies.

Furthermore, respondents more actively participated in commercial company educational programs than in programs conducted by Extension, vocational agriculture or short courses conducted by Iowa State University, as shown in Table 1. Also, as the educational background of the participants increased, greater participation in Extension meetings and clinics resulted (Table 1).

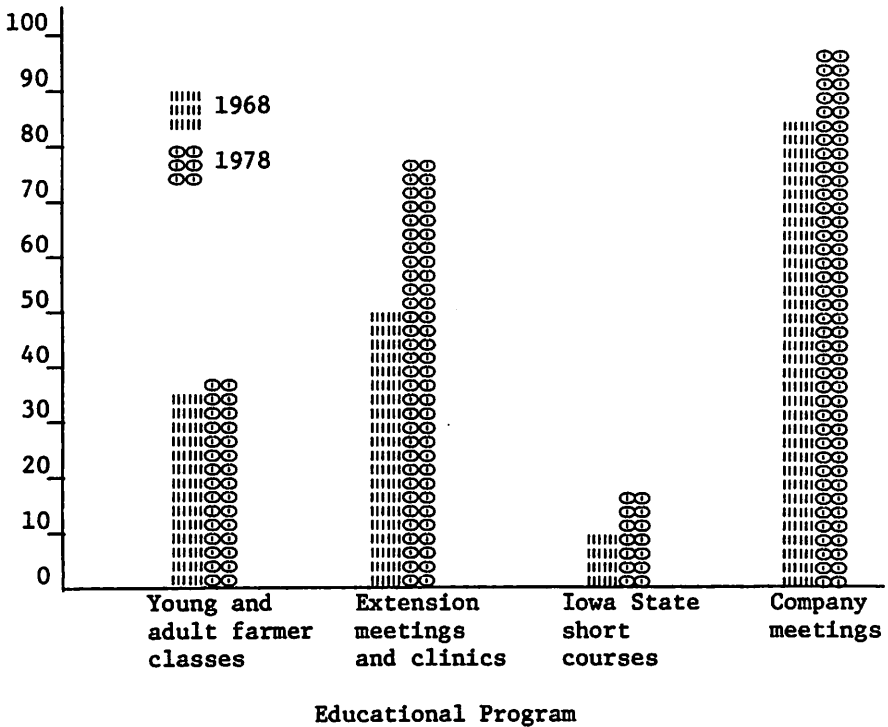


Figure 1. Participation in educational programs in 1968 and 1978.

Comparison of Perceived Values of Educational Activities with Selected Variables

The perceived value of instruction received through adult vocational agriculture programs was compared with selected agricultural, economic and social variables. The data revealed that those participants who placed higher value on instruction were those involved in individual farming operations, were well established in farming, were operating larger acreages, were showing greater profit margins from their farming enterprises, and were participating more extensively in leadership activities in the community. Further analyses indicated that the vocational agriculture teacher was rated as being of "little or no value" as a source of technical information (Table 2).

Table 1

LEVEL OF EDUCATIONAL ATTAINMENT AND PARTICIPATION IN
EDUCATIONAL PROGRAMS SINCE 1968

Program	Mean(a) Participation by Educational Attainment			F
	<12 years	12 years	>12 years	
Young or adult farmer classes by vo-ag instructor	1.1 (14) ^b	1.6 (166)	1.7 (35)	2.703
Meetings and clinics by Extension personnel	1.7 (14)	2.1 (166)	2.5 (35)	3.379*
Short courses by Iowa State University	1.0 (14)	1.1 (166)	1.3 (35)	2.828
Commercial companies - special meetings	2.5 (14)	2.9 (166)	2.8 (36)	1.651

* $p < .05$

(a) The scale used to compute group means for participation was as follows: 4=regular, 3=frequent, 2=seldom, 1=never.

(b) These represent the number of respondents for each group.

Similar comparisons made for Extension programs with selected agricultural, economic and social variables revealed that those participants who placed a higher value on the instruction they received through Extension classes were well established in farming (Table 3), were operating larger farms, were realizing more net farm income, were participating more extensively in community leadership activities, and were involved in partnership farming operations (Table 3). Extension agents were perceived by the participants as being of "some value" as a source of technical information (Table 2).

Participants placed highest value on farm magazines as a source of technical information followed by commercial companies and radio (Table 2). Those respondents who identified themselves as well-established farmers placed more value on farm magazines as a source of information than did those who were less established in farming. A similar observation was made for those who had participated more extensively in community activities and organizations.

Table 2

PERCEIVED VALUE OF SOURCES OF TECHNICAL INFORMATION

Source	Perceived Value	
	n	Mean(a)
Farm magazine	219	6.4
Agricultural bulletins	215	5.1
Radio for agriculture	218	5.6
TV for agriculture	216	4.5
Daily newspaper	214	4.6
County Extension personnel	219	4.6
Vocational agriculture teacher	183	2.9
S.C.S. personnel	213	4.6
County A.S.C. personnel	218	5.0
Fm.H.A.	195	2.4
Commercial companies	219	5.7
Land-grant college personnel	201	2.9

a) The scale used to compute group means was as follows: 1-3 was of little or no value, 4-6 was of some value, and 7-9 was of much value.

Areas of instruction rated as being most needed by the participants were crop and livestock production, agricultural marketing, and farm record analysis (Table 4). As was noted earlier, those participants who identified themselves as well-established in farming and were, as illustrated in Table 4, more extensively involved in leadership activities placed highest value on instruction needed in these instructional areas.

When given a choice of teaching approaches for dissemination of agricultural information, respondents gave the highest rating to area short courses followed by closed circuit television programs.

Table 3

PERCEIVED VALUE OF EXTENSION INSTRUCTION ACCORDING TO LEVEL
OF ESTABLISHMENT IN FARMING AND TYPE OF FARMING OPERATION

Activity	Mean (a) Perceived Value by					
	Level of Establishment			Type of Farming		
	Partially Established	Well Established	F	Individual	Partnership	F
On-farm visit by Extension agents	4.0 (47)b	4.0 (95)	0.004	3.8 (127)b	5.7 (17)	7.647*
Extension group tours and trips	3.2 (40)	4.0 (91)	2.881	3.6 (116)	4.9 (17)	4.331*
Meetings conducted by Extension	5.3 (55)	5.9 (100)	2.755	5.7 (141)	6.0 (16)	0.223
Composite	10.9 (56)	12.9 (104)	4.360*	11.8 (145)	16.3 (17)	9.463*

* $p < .05$

a) The scale used to compute group means was as follows: 1-3 was of little or no value, 4-6 was of some value, and 7-9 was of much value.

b) These represent the number of respondents for each group.

Table 4

**LEADERSHIP PARTICIPATION AND PERCEIVED VALUE
OF NEEDED AREAS OF INSTRUCTION IN AGRICULTURE**

Areas of instruction	Mean(a) Perceived Value by Leadership Participation				
	Little	Some	Much	\bar{X}	F
Money management	5.8 (100) ^b	6.1 (78)	6.5 (31)	5.9 (218)	1.357
Agricultural marketing	6.0 (100)	6.7 (78)	7.3 (32)	6.4 (219)	5.090 ^d
Crop production	6.4 (100)	7.0 (78)	7.1 (32)	6.6 (219)	4.130 ^c
Livestock production	6.1 (99)	7.3 (78)	7.0 (32)	6.6 (218)	7.710 ^c
Agricultural mechanics	5.6 (100)	6.0 (78)	6.2 (32)	5.8 (219)	1.059
Legal transaction	5.7 (100)	6.1 (78)	6.5 (32)	5.9 (219)	1.663
Farm record analysis	6.2 (100)	6.5 (78)	7.1 (32)	6.4 (219)	2.445
Composite	41.6 (100)	45.7 (78)	47.5 (32)	43.6 (219)	5.31 ^{c,d}

a) The scale used to compute group means was as follows: 1-3 was of little or no value, 4-6 was of some value, and 7-9 was of much value.

b) These represent the number of respondents for each group.

c) Scheffe significant ($p < .05$) for little vs some

d) Scheffe significant ($p < .05$) for little vs much

e) Scheffe significant ($p < .05$) for some vs much

Conclusions

Based on an analysis of the findings of this study, the following conclusions were drawn and recommendations made.

Participation

During the past 10-year period, the majority of farm operators in the sample did not participate in educational opportunities available to them through institutional educational programs, except Extension meetings and clinics. According to the data, educational programs, especially young/adult farmer classes and Iowa State short courses, were not attended by a majority of the respondents in this study. Commercial companies enjoyed wide acceptance on the part of farm operators.

Comparison of Perceived Values of Educational Activities with Selected Variables

Selected educational factors were more highly valued by respondents with greater income, larger acreages, more education and increased leadership activity. Farm magazines were the first choice of the respondents as a source of technical information with commercial companies being next and radio for agriculture being third. Areas of instruction valued as being most needed were crop and livestock production followed by agricultural marketing and farm record analysis.

Recommendations

Adult educators in agriculture should carefully analyze the needs of farmers in their communities and design meaningful programs to meet these needs. A variety of teaching methods should be used when teaching adult farmers and every effort should be made to carry educational programs to the farmers. These programs should consist of short courses, educational television and other programs found stimulating to farmers.

Greater exposure should be given to the services provided by Extension, vocational agriculture, and other segments of the universities. This could be done through media such as farm magazines if farmers continue to perceive the value of these sources of information highly.

Educational programs should be designed to assist all farmers. These programs should be designed for farmers with specific needs as well as for farmers with general or common needs.

Finally, a recommendation is made for more longitudinal research. There is much to be gained by agricultural education researchers in establishing trends from which to project implications for the profession.

Selected References

Bode, John D. "Factors Which Influence Attendance in an Adult Farmer Class." M.S. Thesis, Iowa State University, 1967.

Crawford, Harold R. "Factors Affecting the Establishment of Young Farm Operators in Iowa and Implications for Agricultural Education." Ph.D. Dissertation, Iowa State University, 1969.

Hartsock, Linda S. and Beverly Copeland. "The Expanding Market of Adult Education." *Publishers Weekly*, CCXVI (October 29, 1979), 57-58.

Neylan, Margaret S. and Collie Verner. "Patterns of Attendance in Adult Night School Courses." *Canadian Education and Research Digest*, 1966:27-37.

Pearce, Frank C. "The Educational Needs of Beginning Farm Operators in Becoming Established in Farming in New York." Ph.D. Dissertation, Cornell University, 1964.

Smith, Keith L. "Educational Factors Affecting the Continued Establishment of Young Farm Operators in Iowa." Ph.D. Dissertation, Iowa State University, 1980.

Stadlman, Neil H. "Follow-up Study of Recent Young Farm Operators in Iowa. A Special Topic in Agricultural Education." Agricultural Education 590 Project, Iowa State University, 1973.

(Warner and Luft--continued from page 34)

Warner, Lyle B. "Reasons Why Students Did Not Complete Two-Year Post-Secondary Farm Management Programs in North Dakota," Unpublished Master's Degree paper, North Dakota State University, May, 1981.
