

AGRICULTURAL EDUCATION FOR ADULTS

"... our democracy presupposes a thinking , literate people. Adults cannot excuse themselves from continuous learning unless they choose to exclude themselves from society and, like hermits, 'take to the hills'".

From the preface Methods in Adult Education

Some may think that education in agriculture for adults is a new and innovative idea. A study of history would reveal, however, that almost all of the early education in agriculture was directed at adults. It was not until the more familiar events of the early 1900's, establishing a federal presence in vocational instruction, that the emphasis on education in agriculture was broadened to include more basic and preparatory instruction for youth. Even then, the phrasing of the Smith - Hughes enabling legislation sustained the notion that education in agriculture should include instruction for adults by stating that vocational education in agriculture was "designed to meet the needs of persons over fourteen years of age who have entered upon or who are preparing to enter upon the work of the farm or of the farm home " ( PL 347, 1917 ) The legislation clearly identified out-of-school persons as one of the major target audiences of the federal intervention in vocational education.

States responded to the Smith - Hughes law by providing educational opportunity for adult farmers and for out of school youth through young farmer or part time programs. Growing attention to the needs of youth, however, often left programs for adult farmers or beginning farmers with a low priority. Acts of war removed many youth and adults from rural communities. The restructuring of agriculture which lead to rapid declines in rural populations of farmers, had a profound effect on the level of priority given to education for the non-youth audience. It was not until the implementation of the war adjustment acts in the WWII period that a major, but temporary, emphasis was once again placed on programs of instruction for adults engaged in or starting to engage in farming or other agricultural pursuits.

"In the fiscal year 1940-41, the last school year prior to our entrance into the war, there were 8,786 departments of vocational agriculture in the United States. In this year a total of 6,377 adult farmer and 3,156 young farmer classes were taught in the federally aided departments, an average of only 1.1 classes per department. In contrast, 65,996 courses were organized under the Rural War Production Training in 1943, most of which were supervised or taught by teachers of agriculture."( Eckstrom-McClelland, 1952 )

Many states provided programs of instruction for veterans under the G.I Bills. Legislation provided for Institutional On Farm Training (IOFT) after World War II, the Korean conflict and the Vietnam war. Most states failed to capitalize on the opportunities these experiences provided for developing programmatic instruction for non-veteran adults. When the entitlement for instruction of veterans expired, programs for adults in agriculture were not developed to take their place.

Rapid expansion of the population following the armed conflicts of mid century created yet another circumstance which gave priority to education of youth. The school age population was rapidly rising. Communities had a hard time providing schools and facilities to meet the expanding population of school age children. Attention that may have been given to educating adults was diverted to meet the soaring demand for schools, teachers, facilities, and financial support for the nations youth. Attention to education for adults through the public schools diminished. In agriculture the effects were compounded by the migration of rural families to the cities. Adult and young farmer enrollments in agriculture in the middle of the decade of the 70's had declined to only 279,000 from a level of 339,000 twelve years prior. ( Persons 1980 )

What grew from past practice and new program innovation was a widely diverse array of program offerings. At one extreme were programs focused on improving the management of the farm business with much attention given to farm business records, goal setting, business analysis and evaluation. On the other extreme were short, intensive programs of instruction designed primarily to introduce new technologies into the array of resources farmers had available to improve production, marketing, or some other singular facet of their business. Somewhere between were the programs that combined some management instruction with technology transfer, leadership, and personal growth. Adult programs in agriculture in the decade of the nineties, still exhibit the diversity spawned from a mixture of tradition and educational innovation.

#### The Comprehensive Adult Education Plan.

One philosophy and practice of adult education in agriculture was to incorporate all adult education activities within the comprehensive vocational agriculture program of the secondary school. This mode of operation prevailed early in the development of the vocational agriculture program. There was a generally accepted pattern of adult/young farmer instruction that required a vocational agriculture department to offer 15 classes of instruction for young farmers and 10 classes of instruction for adults. (Garris 1954) Not all states ascribed to this pattern, and not all who ascribed were successful in operating adult and young farmer programs over an extended period.

"While some of the States, including those in the South and a few in other areas, have been quite successful in reaching out-of-school groups, difficulties continue to be experienced in getting educators to accept adult instruction as an integral part of the program. Even where the response was comparatively good, the teaching of classes other than for all-day groups has been regarded as extracurricular." (Eckstrom-McClelland, 1952)

Recent studies of adult/young farmer programs in the United States showed the number of part-time adult instructors at a maximum of 1200 - 1250. This total included instructors who taught or advised young farmer chapters and others who were engaged in short term technology transfer training focused on enterprises, mechanization and other technologies, as well as a group who reported a variety of non-production oriented programs. (Birkenholz & Miracle, 1990) Since there is no longer a federal agency that collects data on the efforts States expend on adult and young farmer education, the number of part-time teachers is only a estimate based upon the responses of State agency personnel to a questionnaire. Two other studies that included a smaller sample of States placed the number of part-time instructors at about 1000. ( NFRBMEA 1990, Adult Task Force 1992 )

Table 1

Three Studies in Adult Education in Agriculture : Instructor Comparisons

	Council <sup>1</sup>	NFRBMEA <sup>2</sup>	B/M study <sup>3</sup>
Number of full-time adult instructors	405	408	411
Number of part-time adult instructors	1002	1002	1201
Number of states reporting usable data	28	30	48

<sup>1</sup> The Status of Adult Education in Agriculture, 1991, The National Council for Vocational and Technical Education in Agriculture, (1992)

<sup>2</sup> The National Farm and Ranch Business Management Education Association, (1990)

<sup>3</sup> Birkenholz, R & Maricle, G., National Survey of Adult Education in Agriculture (1990)

## Full Time Adult Instruction

Organizing adult instruction around the employment of full time adult and young farmer instructors is a relatively recent phenomena. As shown in Table 1, in 1991 there were approximately 410 full time instructors employed by public schools. The first widespread experience in using full time instructors for adult instruction was gained in the veterans IOFT programs starting in the post WWII era. Although most of the States discontinued full time instruction for veterans as the entitlement of veterans was used up, a few states used that experience to establish long term management oriented instructional programs for non-veteran adults. Minnesota was one of the early states , utilizing a grant from the Northwest Area Foundation, to test the feasibility of organizing adult programs using the full time instructor concept. Beginning in 1952, this method of organizing and delivering adult education in agriculture has become more widespread. (NFRBMEA 1990)

While most of the full time instructor programs in the nation are oriented to a comprehensive farm management focus, there are some full time instructors who concentrate primarily on young farmer instruction. Unlike the comprehensive adult education plan, full time instructors usually share little or no responsibility for secondary instruction and are often employed in full or in part by non-secondary institutions. These arrangements make it more difficult to have a fully articulated program of agriculture in the public secondary school and make it less likely that the secondary instructor will participate in adult instruction.

## Adult Education, The New Definition

As adult education broadened in scope to include more full time instructors and as the location of programs moved to other non-secondary institutions, the old definitions of adult education developed in the 1920's no longer seemed appropriate. References which specified the number of classes or hours of instruction that should be devoted to adult and young farmer education were not generally accepted to be definitive of adult education efforts. The Adult Education in Agriculture Task Force of the National Council developed a new definition of adult education . Using a Delphi technique among the 13 task force members who represented almost all forms of adult education in agriculture, the Task Force agreed unanimously on the following definition: (Adult Task Force 1992)

Adult education in Agriculture is planned, organized , systematic, meaningful instruction with a major emphasis on managerial concepts and technology transfer. It is provided to meet the needs and/or goals of individuals beyond the secondary school age who are involved in agricultural occupations or other agricultural pursuits.

To provide further context for this root definition and to be more specific about conditions under which it occurs, the root definition is supported by three additional conditional statements.

1. Adult education in agriculture may be provided through formal or informal programs in secondary, post-secondary or higher education institutions, through business and industry or by others.
2. Instructors may or may not be certified, but are generally formally coordinated by an educational unit of the sponsoring agency.
3. Professionals in adult education in agriculture have a responsibility for a) maintenance and expansion of programs which have been proven to be successful and have desirable social and economic outcomes, b) delivery of new knowledge related to current or emerging areas of the agricultural industry, c) Maintenance and extension of knowledge for adults who are affected by the broad agricultural industry. (Adult Task Force, 1992)

The new definition for adult education recognizes that some adult education in agriculture takes place outside of the public school setting. The Agricultural Extension program has been, and continues to be, a major contributor to adult education in agriculture. Growing in importance, especially for the highly technical inputs used in the farm business, are business and industry. The extent to which farmers rely on the various sources of information to supply the knowledge and skills needed to operate a highly complex farm business successfully is unknown. There is a high probability that farmers rely on different agencies to supply different kinds of information, and have in fact a sizable number of individuals, groups, agencies and institutions that constitute their full inventory of information sources.

#### Measuring the Status of Adult Education

With no central agency to compile statistics about adult education in agriculture, estimates of status must come from comprehensive surveys of persons who are responsible for oversight or monitoring of the adult education programs in agriculture in each state. Three national studies were conducted in 1990-1991 which together provide a fairly comprehensive picture of the extent of adult education in the United States. The studies by the Adult Task Force (1992), the NFRBMEA (1990), and Birkenholz and Maricle (1990) provide a current estimate of the participation in adult education programs. The data from those studies are reported in table 2.

Table 2

Three Studies in Adult Education in Agriculture:  
Enrollment Comparisons

Program Description	Council	NFRBMEA	B & M
Farm Management	15,836	10,594	N.R. <sup>1</sup>
Short term technology transfer/knowledge/skill	33,235	N.R.	91,697 <sup>2</sup>
Continuing Young Farmer	8,909	N.R.	18,856
Number of States Reporting Usable Data	28	30	48

(1) N.R. = not reported

(2) Includes farm management, short term and young farmers

Due to the wide discrepancy in reported enrollments, only estimates of the range of enrollments can be made. It would appear that the enrollments reported in the farm management programs in the Council study more accurately represent the enrollment standards that have been reported by participants in the National Farm and Ranch Business Management Association annual conference reports (NFRBMEA 1992) by State representatives from the teaching cadre. Enrollments in Young Farmer programs are best reflected in the Birkenholz/Maricle study since the number coincides reasonably well with the reported membership in the National Young Farmer Education Association. Membership in the NYFEA was reported by the Executive Secretary to be 18,325 for the 1990-91 year. (Wayne Sprick, personal communication, June, 1992)

The difference in enrollment between the Council study and the Birkenholz/Maricle study may be due to the number of unreported states in the Council study and to the "best Estimates" of enrollments provided by most respondents to the Council study. (Adult Task Force 1992)

In any case, it is obvious that attention to adult education in agriculture has diminished, and has diminished more rapidly in current years. Best estimates of combined adult / young farmer enrollments for 1960, 1970, 1980, and 1990 are 318,000; 291,000; 190,000; and 95,000 respectively. While these estimates are based on interpolations between known data points and may not be accurate

for any given interval, they illustrate dramatically that the attention focused on adult and young farmer instruction has diminished over the past several decades .

What does not show in the enrollment statistics is the intensity and depth of the adult instruction that has been provided. Early reports of enrollments often included individuals who had attended only a few- often only one or two- instructional activities during the year. The shift in some states to management oriented instruction has increased the intensity through large group, small group and individual instruction to 50 to 100 hours of instructional time for each individual enrolled.

#### Delivery Agencies for Public Adult Education in Agriculture

When adult education in agriculture was first authorized through the Smith Hughes Act, the instruction was delivered exclusively through the public secondary education system. New systems were developed, however, and became part of the delivery system for adult education in agriculture. States currently report four different systems that share in the delivery of adult programs for agriculture: secondary schools, vocational or area centers, community colleges and post-secondary districts. Table 3, taken from the Adult Education Task Force report (1992) illustrates the diversity in program delivery as reported in 1991.

Table 3

Delivery of Adult Education in Agriculture: Program Delivery Sites

Delivery Site	No.	Program Delivery Site % Range				
		Local Dist	P.S. Dist	Area Sch.	Comm. Coll.	Other
Local School	1	100	-----	-----	-----	-----
Community College	4	-----	-----	-----	100	-----
Local School,P.S.Dist.	4	5-87	13-95	-----	-----	-----
Local School,Area center	2	40-94	-----	6-60	-----	-----
Local School,Comm. Coll.	7	5-87	13-95	-----	-----	-----
Loc Sch,Area Ctr,Comm. Coll.	3	8-71	-----	8-24	5-84	-----
Loc Sch, Commun Coll,Other	1	20	-----	-----	50	30
Loc Sch,P.S. Dist,Comm.Coll	1	85	5	-----	10	-----
Number of States Reporting	23					

Local school districts are still a delivery site for much of the adult education in agriculture. Of the 23 states that reported in the Council survey, 19 reported the local school as a delivery site. However, only one state reported the local school to be the **only** delivery site. Community colleges were reported as the delivery site for some of the adult education in agriculture in 16 of the states and the area school in 5. What is obvious is that there is no single delivery site for this kind of instruction. Almost all states who responded reported some combination of institutions or agencies responsible for adult education delivery. While the sample of states is small, it would appear that the community college is more popular as a sole source delivery site than any of the other institutions. (Adult Task Force 1992)



## Some Basic Tenets of Program Operation

### Young Farmers

Educational programs for young farmers are represented by the aims and purposes of the National Young Farmers Education Association to which the majority of the young farmers who are reported to be enrolled belong. Some states, however, which have active programs for young or beginning farmers are not members of the NYFEA and may ascribe to a different set of goals and purposes for young farmer instruction. The confusion in the objectives for young farmer programs is exacerbated by the practice in many states to make no differentiation between those who are truly young , beginning farmers and those who are older and well established. They are often enrolled in the same instructional activity and labeled as Young Farmers or Adult Farmers depending on the prevalent practices in the state. While most in the profession could sort out the membership into beginners and those well established, there is no standard criteria that separates them into different program efforts. Persons, in a report to the National Education Seminar, suggested that :

"Perhaps our task would be easier if we were to change our descriptions to Beginning Farmer Instruction and Established Farmer Instruction. At least then we could more clearly define the purposes of instruction and relate more easily to the educational need associated with the beginning and established entrepreneur. It would free us from the separation by age where the young view themselves as responsible adults and the more mature hang tenaciously to the idea that they are still young." (Persons 1980)

There have been several guides that outline the goals and purposes of Young Farmer instruction. (Harzman 1979; Agnew/ Gilbertson 1986; Indiana DPI 1980; Barrett/Gilbertson 1980). These goals generally follow the purposes and objectives as outlined in the constitution of the National Young Farmers Education Association ,Inc. (NFREA 1991) but may be more specific in defining the purpose of local young farmer program. What follows is the list of objectives as outlined in the constitution of the NYFEA.

The objectives and purposes of the Association are:( NYFEA 1991)

1. To assist young farmers and ranchers through organized systematic, educational programs to become and remain established in farming, ranching or agribusiness.
2. To assist in developing and utilizing resources available for improving economic status and developing family relationships.

3. To cooperate with all agencies and organizations whose objectives are the improvement of the economic, educational and social conditions of rural life.
4. To assist young farmers and ranchers in developing leadership and communication skills.
5. To provide group identity and unity.
6. To promote the association as an integral part of the instructional programs of agricultural education offered by departments of public instruction.
7. To improve rural-urban relations and urban consumers' understanding of agricultural issues.

Other Young Farmer guides expand the Association list to be more inclusive of local goals. Some of the objectives mentioned in other guides are:

- O Strengthen the confidence of young people in themselves and their work.
- O Provide organized social and recreational activity.
- O Provide a basis for solid decision making in business management.
- O To plan and render worthwhile community services.
- O To develop a greater appreciation of the opportunities in farming and rural living.

Selecting the actual instructional content of Young Farmer programs is often left up to the young farmer participants and the instructor. While some suggestions are provided in those states with written guidelines, there is no prescribed curriculum to which young farmer programs must adhere. If, however, the intent of Young Farmer programs is to assist young people in getting established in farming, then a program of study that focuses on the problems of getting established in the farm business and in making progress toward a successful sustaining business would be of top priority. A sample of the topics prepared in the Minnesota Curriculum for Beginning Farmers illustrates how units of instruction can be organized to assist the young farmer in reaching an establishment goal and in developing the leadership and communication skills that are part of the establishment process. These topics of instruction are designed to serve as the core of the instructional activity supplemented with other instruction in technology transfer and farm management. (Scheffert et al 1989)

## Beginning Farmer I

### **Establishment in Farming**

Current Agricultural outlook  
Appraising Yourself: Identifying farm and family goals  
Understanding the Unique Farm/Family Relationship  
Psychological Requirements  
Personal Attributes for Farm Business Success  
Physical Requirements  
Locating a Farm  
Appraising a Farm for Rent or Purchase  
Family Farm Operating Agreements  
Rental Options  
Important Characteristics of Rental and Operating  
Agreements to Beginning Farmers  
Farm Record Keeping  
Farm Family Financial Management

## Beginning Farmer II

### **Obtaining Agricultural Resources**

Types of credit  
Sources of Farm Credit  
Public Credit Programs  
Credit Instruments  
Determining Credit Needs  
Computing the Costs of Credit  
How to Obtain Credit  
Buying Land

## Beginning Farmer III

### **Involvement in the Rural Community**

Strengthening the Farm Family Through Communication and  
Decision Making  
Making the Most of Your Leadership Abilities  
Farm and Community Organizations: What do They Do?  
Farm and Community Organizations: Strengthening Them  
  
Affecting Local, State and National Government Policy  
National Young Farmer Education Association  
Schools and School District Policy  
Understanding Agricultural Agencies, Programs and  
Policies  
Influences on the Way You Farm

Since beginning farmer instruction is likely to be taught on a part time basis by a regular secondary or post secondary instructor, having a prepared set of course outlines with adequate content from which the instructor can build the instructional program is a useful tool in insuring comprehensive instruction. Content can be modified to meet local conditions and to address the most pressing needs of the clients enrolled, but following an organized plan helps assure that the beginning farmers have access to the information most pertinent to getting established in a successful farm business.

It is important to keep in mind that some instruction may be suited for a mixed audience of beginning and established farmers while some may only pertain to the beginners. The young or beginning farmer program should try to concentrate on that instruction that is of most value to those just beginning.

### Technology Transfer

It is accurate to say that most adult instruction, at least in the past, concentrated on the transfer of technology. Usually reported under the heading of Enterprise or Agricultural Mechanics instruction, this activity was aimed at getting farmers to adopt new or improved practices in the operation of their crop and livestock enterprises. For adults this instruction often took the form of 10 or more meetings of 1 1/2 to 2 hours in length, held in the off season and usually in the evening hours.

Instruction in technology transfer is often neither age specific nor size specific. It is often beneficial to have a balance between beginning and established farmers in attendance since learning from each other is an important attribute of group instruction. Established farmers lend validity to the study of the topic. Beginners can lend enthusiasm and energy to the discussions. Such interchange often results in the development of mentoring relationships between older and less experienced members of the class, and helps beginners sort out who in the community may be the most important to observe for the adoption of new appropriate practices.

Much of the new technology in agriculture is not size specific: it is available and appropriate for farm operations of all sizes. New breakthroughs in plant and animal breeding, nutrition, crop practices, plant breeding, etc. are often as useful if the farm is small as if it is large. While there may be some difference in the economics of application between farms of different sizes, that does not diminish the appropriateness of the technology. Blending beginning and established farmers in the same group for instruction that is not size specific is a beneficial practice.

What adult educators may wish to keep in mind is that farmers do not always seek them out as a source of new technology information. Information sources outside of the public school system may be the preferred source of much of the new technological information made available to farmers. Farmers may be more interested in seeking help from the public school program, which they often consider to be unbiased, to examine the way in which the new technology fits into their farming system and the projected economic and social consequences of adoption. The details of precisely how the technology works and how it should be used may be sought from the vendor. Changes in farmer expectations for information and assistance in the transfer of new technology will be important to study in defining a role for public adult education in the process.

Whatever may be taught in the general program of technology transfer, the instruction should be systematic. One author (name unknown) said systematic instruction occurred when:

1. A series of meetings is on the same topic
2. The content is unified, interactive and interdependent.
3. The meetings all contribute to the same course objective.
4. Instruction in one unit is based upon instruction in a previous session.

Systematic instruction helps insure that adequate time and attention has been given to factors that will allow the farmers to weigh the pro's and con's of adoption. If the general object of technology instruction is to introduce new technology for adoption, then a measure of the success of the instruction is whether or not farmers adopted the technology where it was deemed to be appropriate for their farming system and where it contributed to their economic and social goals.

### Management Education

Management education for adults grew out of the formal programs of instruction developed for the Institutional On Farm Training Program (IOFT). IOFT was part of the entitlement for instruction authorized in the G.I. Bills following WWII. The first formal effort to expand beyond the eligible veterans was started in Minnesota as part of a long term project funded by the Hill Foundation, ( Now known as the Northwest Area Foundation). The farm management education movement grew slowly, but became the dominant form of adult education in agriculture in about 12 states by the early 1990's. The majority of the full time adult instructors are engaged in farm management education. (NFRBMEA 1990)

Management education requires the most commitment on the part of both the instructor and the farm client. Not only is it more intensive in terms of the time required, but it is more intensive in terms of the kind of information the farmer must be willing to share if she or he is to learn more about the management process. Almost all farm management programs require that the farm client keep an extensive set of farm records that can be summarized and used in the decision making process. Although the procedure for summarizing and interpreting the farm record varies among programs, most would be aimed at providing useful data on farm profitability, financial statements, enterprise performance and financial and production trends in the farm business. Farm clients must be willing to share that information with their instructor. This sharing of highly personal financial information requires that a high level of trust and confidence be developed between the instructor and the farm client.

Management programs for farmers generally possess the following characteristics:

1. There are specific enrollees in each course. Enrollees frequently must pay an enrollment fee or tuition to belong to the farm management program.

2. Specific units are taught as part of each course. There is a program of study, which the farmer can examine before enrollment, that provides at least general guidelines of the content of each course. Courses frequently have regular course descriptions and a well defined set of outcomes or objectives.

3. Courses are offered in a definite and regular sequence, usually starting with a program of study that develops skills in developing a farm record data base and progressing through a sequence where farmers learn and practice skills in analysis, planning, monitoring, controlling, delegating, and evaluating.

4. There is continuity between the courses with progression toward a predetermined instructional goal that usually is aimed at helping farmers achieve their own set of business and personal goals. Instruction is truly systematic.

5. Individualized personal instruction is usually an integral part of the instructional plan to allow the instructor and the client to make application of the instruction to each individual farm situation.

Farm management instructors usually use a combination of large group (classroom), small group, and individual instruction to meet the instructional objectives. While the frequency of meetings and the number of farm or personal visits vary from program to program and within programs from client to client, several states have

adopted guidelines to assist instructors in planning their work. The most frequent guideline target is to provide 10 - 12 formal management oriented group instructional opportunities for each client, with the instruction spread throughout the year, and 10 - 12 individual contacts either on the farm or in regular office visits.

Individual states vary in the length of time they will allow farmers to be enrolled in publicly supported adult programs. Some state policies require that after a limited number of years, (3 - 5 ), the total cost of instruction must be borne by the client. In some cases the programs devise an hourly charge for group instruction and individual consultation for advanced clients; in others the amount of instruction for advanced clients is reduced and appropriate adjustments made in fees and tuition. Other states have no maximum limit on the length of time a client can be enrolled but impose other restrictions related to the recruitment and education of new clients that prevent programs from restricting service to a select group of long term clients. This later system recognizes that farm clients do not all progress at the same rate and some may require longer periods of time than others to achieve their goals, and thus reach the objectives of the instructional program. This general idea of focusing more on attainment and less on the amount of time spent in the educational endeavor is the basic premise of outcome based education that many of the states have begun to adopt for elementary and secondary education.

The content of the farm management program usually relates to the development of the skills required to perform the functions of managers. There is a strong emphasis on developing skill in sound decision making and in practicing periodic goal setting for both the farm and family. The topics which would be organized for adult instruction in management can usually be grouped under the following headings:

#### Curriculum Topic Headings

- Organizing and managing farm data
- Preparing farm records for analysis
- Analyzing the farm business
- Interpreting the farm business analysis
- Farm financial management
- Marketing farm products
- Setting farm and family goals
- Planning the farm business
- Using public and private agency programs in the management of the farm
- Management of labor and personnel
- Understanding the farm in a global context
- Managing taxes

The appropriate content for management instruction has been compiled from task analysis studies that have relied on farmers to determine the management tasks or competencies they considered to be most important in managing their own farm businesses. While the lists of tasks vary slightly from study to study, one of the most recent task analysis studies showed the following list of 25 tasks to be most important. ( Warner, et al. 1990 )

Task	Mean Importance (1)
Maintain expense records	4.74
Maintain income records	4.73
Develop record system	4.71
Maintain checking account	4.54
Manage stress	4.47
Maintain livestock production records	4.46
Exhibit self motivation	4.38
Prepare total farm plan	4.37
Balance home/career relationships	4.35
Prepare income tax records	4.34
Exhibit positive attitudes	4.34
Develop positive relationships	4.31
Prepare total farm budgets	4.30
Prepare cash flow statements	4.28
Analyze farm enterprises	4.28
Analyze expense records	4.27
Apply basis emergency first aid techniques	4.27
Prepare closing record entries	4.25
Develop positive lender-client relationships	4.24
Analyze income records	4.23
Exhibit listening skills	4.23
Monitor accounts payable	4.21
Interpret farm business analysis	4.20
Analyze profit / loss statements	4.20
Select crop enterprises	4.19

(1) rated on a scale of 1 - 5, with 5 being most important.

It is important to note that farmers identified a number of personal skills or traits that are often not associated with the tasks of management, but are attributes that good managers possess. Items like listening skills, positive relationships, home/career balance, positive attitudes, managing stress, self motivation and concern for emergency medical treatment all ranked high in importance.

Using lists like these, farm management instructors and curriculum developers have established a number of comprehensive curriculum guides that can be used to aid management instructors in meeting the criteria for systematic instruction and meeting the instructional needs that farmers have identified. ( Warner, et al. 1990; Hodgen and Meyers, 1979; Hermance et al 1988; S.D. Bd of Education, 1991 )



## Paying for Adult Instruction

There has been a quiet revolution in the way in which the costs of adult education in agriculture are borne. In the beginning of publicly supported agricultural instruction, adult instruction was supported as part of the Smith/Hughes formulas by which states reimbursed local secondary programs with state and federal funds. In recent times, the funding has become more diverse, with more partners sharing in the costs of instruction. One of the more recent phenomena is the charging of tuition for enrollment in adult courses. This action spreads the costs among the recipients and the public supporters. There is no general rule, however, that defines how the costs are shared. The diversity of funding arrangements is illustrated within the small sample of 19 states which reported the funding patterns in the Adult Task Force study. ( 1992 ) The variety of funding arrangements are illustrated in table 4.

Table 4

### Source and Percentage of Funds Allocated to Adult Education in Agriculture

Sources	No. States	Percentage allocated			
		Fed	State	Local	Indiv
Fed, State	1	30	70	0	0
Fed, State, Local	3	20-33	33-65	10-33	0
Fed, State, Indiv.	1	10	60	0	30
Fed, State, Loc, Indiv.	1	2-20	20-90	5-50	3-50
State	4	0	100	0	0
State, Local	1	0	65	35	0
State, Local, Indiv.	6	0	10-94	5-88	2-35
Local, Indiv.	1	0	0	30	70

All but one of the 19 states reporting used more than one source of funds to finance the adult programs in agriculture. The most common combination was an aggregation of state, local and individual funds (fees or tuition) to cover the program costs. When states were asked about the total annual expenditure for adult education in agriculture, the sample of 15 states reporting the data in the Task Force (1992) study varied from a low of \$8,000 to a high of \$9.5 million. It is clear that there are no consistent state policies on who pays for adult education. Nor is there any consistency in the amount of money spent to provide it.

## Adult Education of the Future

No one knows for sure what adult education will be like in the year 2000 and beyond. But there are clues from which one can build a scenario of what it might be like. It will be guided in part by the characteristics of the clientele to be served, in part by the perceptions of what state leaders think it should be like, and in part by the research agenda that will inform the profession about the shape and substance of it.

A group of experienced adult agriculture instructors addressed the question of the clientele of the future at the 1992 meeting of the National Farm and Ranch Farm Business Management Association (1992).

Their visions of the characteristics of the clientele in the year 2010 were as follows:

- More multiple family farms organized in partnerships and corporations
- Farm units will be larger than in 1992
- Farm units will be both more specialized and more diversified on both ends of the organization continuum
- Farms will be more sustainable with fewer inputs
- Farmers will place more emphasis on marketing skills
- More hired labor will be used
- Managers will devote more time to managing and less to supplying the labor input
- More credit will be used in the business
- Managers will be more capable of assuming risks
- More innovations will be practiced
- Attitudes of farmers will be more positive
- There will be more part time farms
- More women will be involved as managers
- More consultants will be used in the business
- More reliance on custom services, including repairs
- Social issues will force farmers to be more adaptable
- Farmers will be more highly trained
- There will be less time for education, yet a recognized need for more

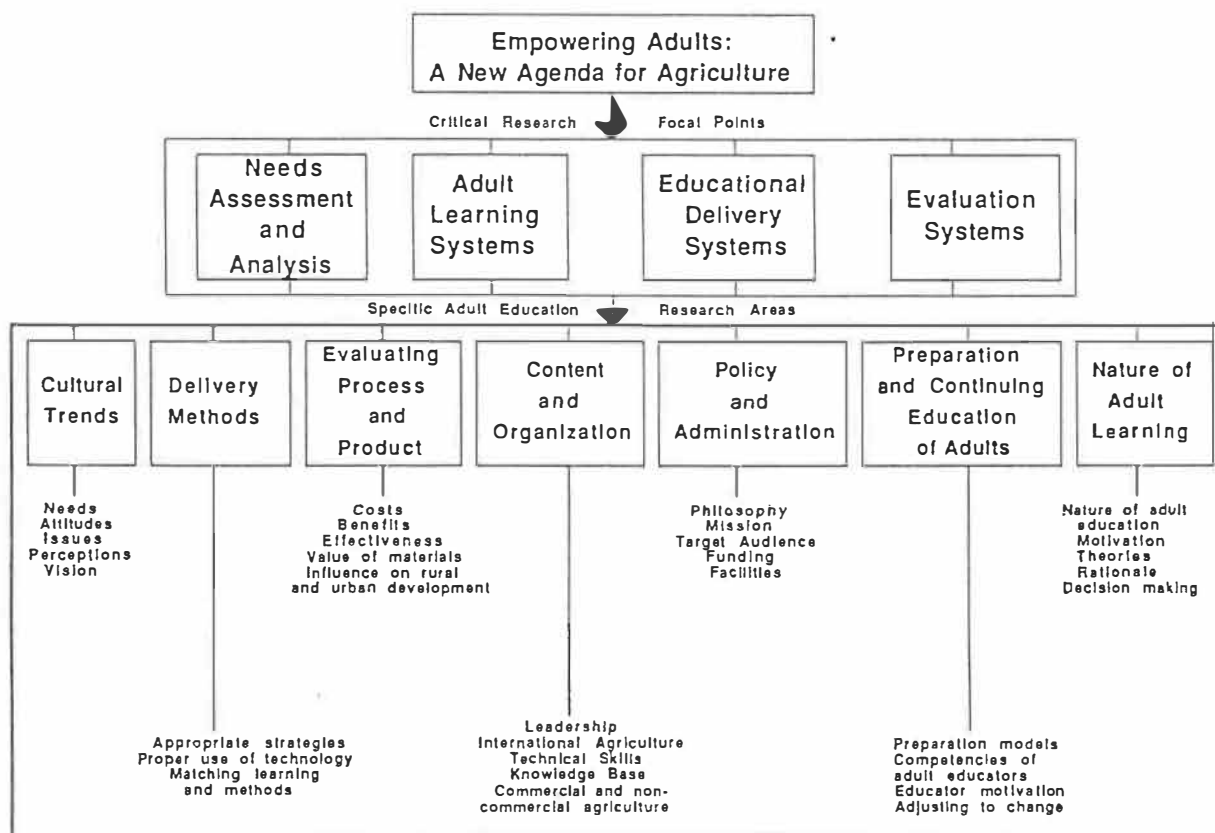
These notions of the farmer clientele of the future are not revolutionary. They are evolutionary extensions of the trends that are already observed in the farm community. They suggest, however, that there will have to be continuing change in the organization and delivery of adult education to meet farmer needs.

State leaders responding to the Task Force query about the future of adult education in agriculture approached the future from a different perspective. ( Adult Task Force 1992 ) Their view, in summary, of the adult education programs of the future postulated that "... the Cooperative Extension Service, Farm Credit Services, the technical/community college system and agricultural industry

have promise as future collaborators in adult education in agriculture".

The focus of adult programs is likely to change. According to the Task Force report, "The primary and secondary audiences are likely to shift due to demographic and economic changes. Management education is the central component of the 'new' curriculum. In some states a shift toward more urban agriculture and agricultural literacy is anticipated. Environmental issues will likely play an important role in the broad adult curriculum. Tomorrow's adult education in agriculture will likely draw from the new distance delivery technologies, but source point instruction and individual prescription teaching will remain a key method."

### Model for Focusing Research in Adult Agricultural Education



\* NCR-158 Committee on Adult Education in Agriculture - January 19, 1990

The third futuring influence, research, can best be described by examining a model for bringing research in adult education in agriculture into focus. The North Central Research Committee on Adult Education in Agriculture provides a model by which the research agenda for adult instruction can be logically examined. ( NCR-158 1990 ) This model identifies four critical research focal points. These focal points are further delineated into six specific research areas that encompass topics ranging from philosophy to methodology.

The future organization, management and delivery of adult education in agriculture will most surely be shaped by the three elements mentioned: clientele, perceptions of the leadership in agricultural education and the discoveries through research.

What will adult education in agriculture in the year 2000 and beyond be like? An interesting question. We will have to wait and see.

## Bibliography

Adult Education Task Force, (1992) The Status of Adult Education in Agriculture.

Washington, D.C.: The National Council for Vocational and Technical Education in Agriculture.

Agnew, D. & Gilbertson, O. (1986). Adult education in agriculture: A handbook for Nebraska vocational agriculture teachers. Lincoln: University of Nebraska, Department of Agricultural Education.

Barrett, L. & Gilbertson, O. (1980). Young-adult farmer and rancher handbook. Kansas City, MO: Farmland Industries.

Birkenholz, R. and Maricle, L. (1990). National survey of adult education in agriculture (project final report). Columbia, MO: University of Missouri.

Eckstrom, G. & McClelland, J. (1952). Adult education in vocational agriculture. Illinois: The Interstate.

Garris, E.W. (1954). Teaching Vocational Agriculture. New York: McGraw Hill.

Harzman, L. (1979). Organizing and conducting young farmer chapters in illinois. Springfield, IL: Illinois Offices of Education.

Hermance, L. Coseke, J. & Schluckebier, L. (1988). Nebraskaland farm & ranch business management education. Lincoln, NE: Southeast Community College.

Hodgers, J. & Myers, L. (1979). Farm business management. Stillwater: Oklahoma State Department of Vocational and Technical Education.

Indiana D.P.I. (1980). Indiana young farmers ass'n handbook. Indianapolis: Indiana Department of Public Instruction.

Kahler, A., Morgon, B., Holmes, G., & Bundy, C. (1985) Methods in Adult Education. Illinois: The Interstate.

Martin, R. (ED). (1990). Empowering adults: A new agenda for agriculture (NCR-158 committee on adult education in agriculture). Ames: Iowa State University, Department of Agricultural Education and Studies.

NFRBMEA. (1990). National farm & ranch survey of adult agriculture education programs. (Available from Eugene Francis, Blooming Prairie, MN).

NFRBMEA (1992) Proceeding: twenty first annual farm and ranch management conference. Rapid City, S.D.: National Farm and Ranch Business Management Education Association.

NYFEA (1991) National young farmer education association, inc.: directory. Washington, D.C.: National Young Farmer Education Association.

Persons, E., (1980). Adult education: A part of agricultural education. National Agricultural Education Seminar, Kansas City, MO.

Public Law No. 347, (1917). Smith-Hughes Act; (S.703). Washington, D.C.: 64th Congress of the United States.

Scheffert, P., Wippler, R., Persons, E., Bracewell, E. (1988). Beginning farmer Education. St. Paul: University of Minnesota.

South Dakota Board of Education. (1991). Farm and ranch management; Farm business manager. Decatur, G.A: Vocational Technical Education Consortium of States.

Warner, J. (Ed). (1990). Farm business management: State curriculum guide, St. Paul: State Board of Technical Colleges

## EXECUTIVE SUMMARY

### Agricultural Education for Adults

Agricultural education for adults is not a new idea. Almost all agricultural education before the 20th century focused on adults. Early attention to technology transfer gradually gave way to other forms of instruction. The preparation for mid century wars and the focus on returning veterans resulted in massive increases in the program efforts for adults. These efforts diminished in later years in response to the rapid growth of the school age population ( the baby boom) and the rapid restructuring of the agricultural farm sector.

Growing out of the changes in schools, and the changes in agriculture was a new approach to adult education. This new approach concentrated on farm records, business analysis and teaching farmers to be better managers of their resources.

Adult education in agriculture is today a combination of the traditional technology transfer instruction and the newer farm management approach. Complimenting both systems is a program for young or beginning farmers .

Instruction has been generally organized under two different organizational themes: instruction as part of the agriculture program of the comprehensive school and full time instructors attached to secondary or post secondary schools but not as part of a comprehensive program of instruction. Current adult education programs tend to utilize the later organizational scheme, although many instructors in the secondary schools still offer some adult instruction.

The new definition devised by the Adult Education Task Force describes adult education as being "planned, organized, systematic, meaningful instruction with a major emphasis on managerial concepts and technology transfer."

This chapter on adult education examines the basic content of programs of instruction for beginning and established farmers. Brief outlines of the structure of the curriculum that might be appropriate for these groups are provided.

The questions of who provides the instruction, how it is financed and which agencies are engaged in program organization and management provide interesting insight into the changes that have occurred in adult education in agriculture in the past several decades.

Adult education in the future will be guided by the nature of the clientele, the perceptions of leaders in the profession and in part by the research agenda that shapes the knowledge about the field. Each of these factors are examined in addressing the question of what adult education in agriculture in the future will be like.