



REWARDING RETURNS

**FROM AN INGENIOUS
INVESTMENT**



***The Organization, Analysis and Evaluation
of Adult Farm Management Programs
As They Are Conducted in Minnesota***

**by
VICTOR A. RICHARDSON**

Foreword

While agriculture is this nation's biggest and most basic industry, America's farm families have received neither recognition nor appreciation commensurate with their contribution to the well-being of all Americans.

Farming and the needs of farm people are usually taken for granted when social and economic programs are being devised.

In education as in almost every other aspect of American life, the available dollars per person are somewhat less for agriculture than for most other disciplines. The strong performance record of Ag Education over the years – including Adult Ag. – has not changed that practice, nor has the obvious continuing pattern of declining farm population with resultant vacant stores in rural communities and accompanying urban congestion.

The potential impact of Minnesota's Adult Farm Management program on community, state and nation is unmistakable. The steady and almost certain business growth of participating farmers has proven to be one of the most promising stabilizing influences at work in rural communities in our state. It represents a positive move toward the preservation of strong family farms, and counter to the existing pattern of concentrating the control of food and fiber into fewer and fewer hands.

We are proud to have shared in making this valuable analysis possible. The Victor Richardson study, having questioned beginning and advanced farmer-participants, Ag Instructors and School Administrators, confirms beyond any expectation, that Adult Farm Management is held in the highest regard by those who are in a position to know its strengths and its weaknesses.

The results of this study should be a source of real satisfaction to the teachers, administrators, boards of education, lawmakers and indeed to taxpayers who have shared in making Adult Farm Management a reality.

May it likewise be an inspiration to others in this state and elsewhere to act now – before it's too late – to recognize the true contribution of family farmers to the American way of life and their unfailing capability to spare American consumers from food prices based on either scarcity or monopoly. And may realistic programs and funding for Ag Education be a fundamental part of our goals.

The 80's and beyond hold almost unlimited challenge and opportunity for improving the quality of life for countless numbers of people throughout the world. If these challenges are to become areas of progress and success, the two forces most central to that progress are Agriculture and Education, in concert.

Cy Carpenter
President
Minnesota Farmers Union

F.B. Daniel
Development Specialist & Education Liaison
Minnesota Farmers Union

The Organization, Analysis and Evaluation of Adult Farm Management Programs As They Are Conducted In Minnesota

A Colloquium Paper
Submitted to the Graduate School
of the
University of Minnesota

by
Victor A. Richardson

In partial fulfillment
of the requirements for
the degree of
Master of Arts

July, 1979

Table of Contents

Chapter	Page
I. Introduction and the Program	7
II. Procedures of the Study	8
III. Review of Related Literature	9
IV. Results of the Study	21
V. Summary and Conclusions	43
Selected Bibliography	48

ACKNOWLEDGEMENTS

My sincere appreciation to the many persons whose encouragement and assistance contributed to the preparation of this paper.

I am especially indebted to Dr. Edgar A. Persons and Dr. R. Paul Marvin, my co-advisors, for their able guidance and persevering counsel in the academic program, planning the research and preparation of this paper.

My sincere appreciation to the Minnesota Farmers Union for their interest, cooperation, assistance and inspiration.

Special appreciation goes to those instructors of adult farm management, program administrators, and all farmers who participated in this study. Without their cooperation this study would not have been possible.

My sincere appreciation to the area coordinators, the Adult Farm Management Advisory Committee, and Odell Barduson, Adult State Supervisor, for serving as a sounding board and ever present encouragement and assistance.

A very special thanks goes to my wife Clarice for her inspiration and assistance, especially in the preparation and typing of this manuscript.

Victor A. Richardson

St. Paul, Minnesota
July 1979

This study and report were made possible with the help of Minnesota Farmers Union, a chartered division of National Farmers Union in Denver, Colorado, and published by Minnesota Farmers Union.

A copy is available to educational institutions at no charge upon request. Additional copies are available to schools and to other interested parties at \$5 per copy.

*Write: Minnesota Farmers Union
1717 University Avenue
St. Paul, MN 55104*

List of Tables

Table	Page
1 Number of Years Participants Can Benefit from the Adult Farm Management Program	21
2 Contributions to the Family from Participation in the Adult Farm Management Program Ranked in Order of Importance	22
3 Type of Instruction Benefited Most From	23
4 Benefits of Program Participation Currently Provided	24
5 Adult Farm Management Program Objectives Ranked in Order of Priority	26
6 Type of Classroom Meeting Desired Ranked in Order of Preference	26
7 Frequency of On-Farm Visits Desired	27
8 Average Number of On-Farm Visits Conducted Per Year Per Program Participant	28
9 Number of Classes Preferred for the Exploration of a Topic of Interest	28
10 Average Number of Classes Conducted Per Year Per Program	29
11 Practices, Behavior and Attitudes Perceived to be the Result of Adult Farm Management Program Participation	29
12 Perception of Availability of Other Management or Record Keeping Programs in the Community	36
13 Likelihood of Participating in a Private Program After Six Years in the Adult Farm Management Program	36
14 Perception of Average Increase in Annual Income as a Result of Program Participation	38
15 Number of Farm Families One Adult Farm Management Instructor Can Effectively Work With	38
16 Average Number of Families Enrolled in a Local Farm Management Program	39
17 Percent of Program Enrollees Having a Farm Business Analysis	39
18 Feasibility of Farm Families Participating in the Adult Farm Management Program For More Than Six Years	39
19 Reasonableness for Expecting Adult Farm Management Instructors to be Working With At Least 42 Farmer-Cooperators With Less Than 6 Years Experience in the Program	40
20 Capability of Local Farm Management Program to Enroll All Who Desire to Participate	41
21 Activities of the Farm Management Instructor Ranked in the Order of Priority	42

List of Figures

Figure	Page
1. Relationship Between Indexed Mean Labor Earnings and Adult Farm Business Management Education	10

Chapter I

Introduction and the Program

Currently there are more adult farm management programs in the nation than ever before. The vast majority of the programs follow the Minnesota model for farm management instruction. In spite of widespread acceptance of the Minnesota farm management instruction model, there is confusion and misunderstanding concerning the importance of and the administration of these programs within Minnesota itself. Questions have been raised by local school administrators, state legislators and adult farm management instructors concerning the operation and future of these programs.

The purpose of this study is to systematically address some of the concerns raised by the various publics. To define what adult farm management instructors do or should be doing to meet the needs of the people with whom they work, the expected scope of their activity both in the number of clients served and the nature of the instruction, and to measure the perceptions clients have of the outcome of instruction can serve to clear away the confusion and misunderstandings of policy-makers, teachers and farmer-cooperators about the intent and the operation of farm management programs.

Problem or Purpose

Much study has been done concerning the benefits of participation in an adult farm management program. However, there is a need for a comprehensive study of the perceptions of policy-makers, farm management instructors and farmer clients of the role that should be performed by teachers of farm management.

There is continuing controversy over the rules under which the program operates. Without a clear understanding of the expectations of the three groups previously mentioned, it is difficult to modify opinion or programs to bring them in a functional relationship to the perceptions of what "ought to be."

Specific Objectives

This study is designed to:

1. Summarize and synthesize the studies that have been done which address the economical and non-economical benefits and costs of participation in the adult farm management program to farmers.
2. Determine what people expect to receive from participation in the adult farm management program, and the relative importance they place on various farm management program activities.
3. Define changes in farm practices, behavior or attitudes that people in the farm management program attribute to participation in the program.
4. Determine the perceptions of what adult farm management instructors do or should be doing to make the management program meet the needs of the people enrolled as viewed by policy-makers, teachers and farmers.

Chapter II

Procedures of the Study

The three groups of people included in this study, namely the farmer-cooperators, farm management instructors, and program administrators, were surveyed to determine their perceptions and expectations of the way adult farm management programs should be operated. They further were asked to identify the benefits that individuals could expect to receive from program participation. The responses from these different vantage points will be used to effectively evaluate and organize adult farm management programs.

Approximately one-half (40) of the full-time adult farm management programs in Minnesota were asked to respond to the research instrument. These programs were randomly selected from a list of full-time adult farm management programs that have been full time for at least three years. The list was provided by the Minnesota State Department of Education.

The programs randomly selected for this study were:

- | | |
|---|--|
| 1. Agassiz Valley Voc.
Center, Crookston | 21. Madison |
| 2. Albert Lea | 22. Mankato |
| 3. Barnesville | 23. Melrose |
| 4. Bemidji | 24. Montevideo |
| 5. Blooming Prairie | 25. Moorhead |
| 6. Cold Spring | 26. New Ulm |
| 7. Danube | 27. Owatonna |
| 8. Eagle Bend | 28. Paynesville |
| 9. Fairbault | 29. Pelican Rapids |
| 10. Fertile | 30. Red Wing |
| 11. Fosston | 31. Rochester |
| 12. Glencoe | 32. St. Cloud |
| 13. Goodhue | 33. St. Peter |
| 14. Goodridge | 34. Slayton |
| 15. Hayfield | 35. South Central Voc.
Center, Blue Earth |
| 16. Hills - Beaver Creek | 36. Southland |
| 17. Hutchinson | 37. Spring Valley |
| 18. Lakefield | 38. Ulen - Twin Valley |
| 19. Lewiston | 39. Willmar |
| 20. Madelia | 40. Worthington |

The adult farm management instructor for these respective programs was asked to supervise and coordinate the study within his own school district and to respond to the survey himself. He was also given the survey forms for the farmer-cooperators within his program and his administrator and was asked to distribute them. The instructor was selected at random in programs having more than one adult farm management instructor.

Each of the adult farm management programs selected had 18.5% of their farmer-cooperators randomly selected to be surveyed. This was accomplished by reviewing the Minnesota State Department of Education Form 47-a each program filed in 1978. The percentage of the farm businesses selected from each (18.5%) was then converted to the nearest whole number. This number of farmer-cooperatives was then randomly selected from the lists of individuals provided on the 47-a.

Three distinct groups of farmer-cooperatives were to be included in the study for comparison purposes. These groups consisted of those enrolled for one to three years, those enrolled for four to six years, and those enrolled for more than six years. The State Department of Education Form 47-a provides for a listing of program enrollees according to the period of time they have been enrolled. It lists those enrolled for one year,

two years, three years and four years or more. Therefore, one-third of the farmer-cooperators randomly selected came from the Form 47-a population included as being enrolled for one, two, and three years. The remaining two-thirds of the sample came from the population listed as being enrolled for four years or more with the realization that there would be some enrolled for four to six years and others enrolled for more than six years.

The survey form asked the farmer-cooperative to declare how many years he had been enrolled in the adult farm management program based on the desired distinction of groups (see Appendix). This allowed the results to be compiled accurately based on actual enrollment time.

If, for some reason, the named farmer-cooperator was not available to cooperate with the study, a substitution was made. The power for substituting was given to the involved adult farm management instructor. He was instructed to distribute the survey packets to the farmers in his program selected to participate. If a substitution was necessary, he was instructed to randomly select a replacement.

The study involved 480 individuals as the population to be surveyed. This consisted of 40 full-time adult farm management instructors, 40 program administrators, and 400 farmer-cooperators. The instructor in each program was key to the distribution and completion of the survey form by all of the involved individuals.

Besides the initial mailing, a follow-up letter was sent to each of the instructors to encourage completion of the surveys. Numerous phone calls were also made along with encouragement from the State Adult Agriculture Advisory Board and the Area Agricultural Coordinators.

Totally a response of 63.5% was attained with 305 surveys being returned. Of this total, 87.5% of the instructors, 77.5% of the program administrators, and 59.8% of the farmer-cooperators responded.

Chapter III

Review of Related Literature

The intent of this paper is to analyze and evaluate the adult farm management programs as organized and conducted in Minnesota. Webster says to analyze, one must examine in detail so as to determine the nature or tendencies of.¹ If education is to be effective, its programs must be continually analyzed to meet the needs of the people utilizing it.

One of the greatest needs today is for the availability of any effective scheme of assessment of programs and needs of individuals as the basis for providing effective service to all of the citizens of this nation.² Periodic assessment of farm management programs is, therefore, necessary if farmers are to be effectively served.

Sutherland maintains that evaluations should include assessments and appraisals of both product and process. He says we should measure and weigh both the outcomes of our programs and the manner in which they are conducted and administered.³

In other words, effective educational evaluation involves listening – listening to the products of our educational effort. Dire consequences are likely to be realized if the educational system does not listen to the people it serves. At the 1979 Minnesota Governor's Conference on Vocational Education, Charles Nichols, Director of Vocational Education for the Minneapolis Public Schools, stated, "Educational institutions fall on their faces because they fail to listen to their products."

¹ Webster's New World Dictionary, 2nd ed. (1968), s.v. "analyze."

²B.E. Childers, "Vocational Program Evaluation," *The Individual and His Education*, ed. Alfred H. Krebs (Washington, D.C.: The American Vocational Association, 1972), p. 258.

³Sid S. Sutherland, The Center for Research and Leadership Development in Voc. & Tech. Ed., *Evaluation and Program Planning in Agricultural Education* (Columbus: Ohio State University, 1966), p. 15.

Educators use the term evaluation to identify the process of determining the strength or value of their work. It is a way of measuring the results of educational activities.¹ The results of participation in an adult farm management program have generally been stated in financial terms. Increase in income is the criteria commonly used to measure the value of the farm management program in the community.

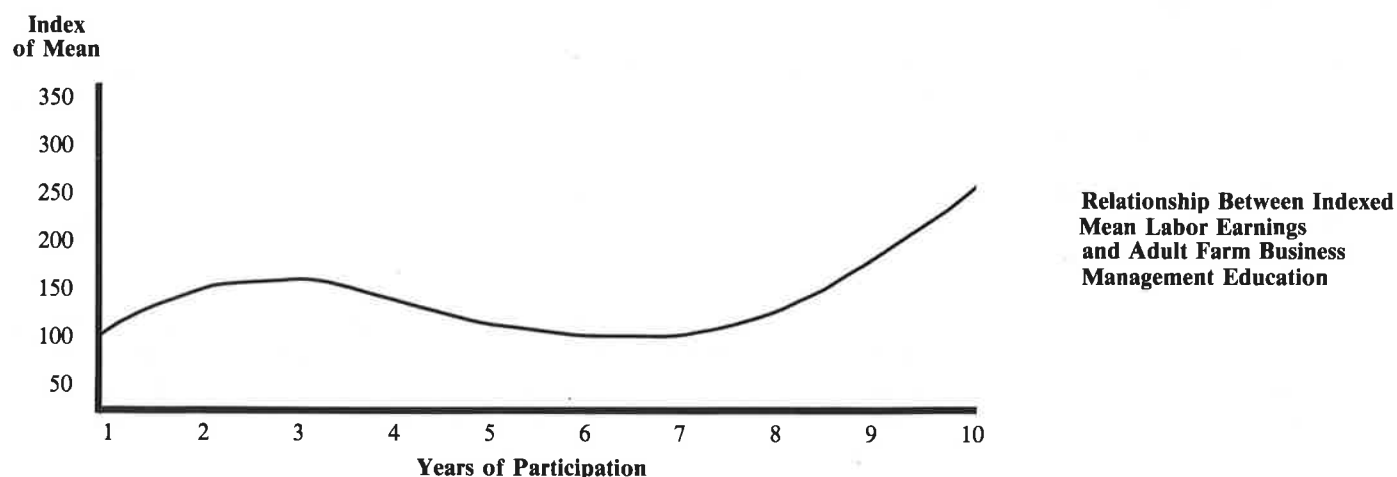
Sisler concludes in his summary that his farm management members had 30% greater net earnings than the average farm operator in the community.² In Strohm's statement, the program he cited showed an average increase of \$2,000 in gross income per year per farm family enrolled.³

Persons and others studied the business records of 3,518 farmers who participated in adult farm management programs in Minnesota to determine the relationship between educational inputs and economic outcomes. Among the conclusions and implications of the study are the following:⁴

1. In a benefit-cost analysis in which all direct and opportunity costs are calculated, and where all future benefits are discounted to present value, a farmer can expect to realize about four dollars of labor earnings for each dollar of investment in the educational programs described in this inquiry. This benefit-cost ratio of 4:1 does not include benefits or returns which are non-monetary.
2. In a benefit-cost analysis in which the benefits to the community are calculated as the aggregate rise in farm labor earnings and where the costs include the aggregate costs borne by the community, the benefit-cost ratio is approximately 2:1. This is an excessively conservative estimate since it does not include as benefits the increase in business activity which derives from expanded farm sales, nor does it include a community benefit which derives from an expanding tax base. A benefit-cost ratio which includes farm sales as a measure of business activity is 9:1. Inclusion of measures of increased tax base or other less tangible monetary benefits result in an even greater benefit-cost ratio.
3. In the first three years of management instruction, there were rapid gains in farm income. Diminishing marginal returns occurred as farmers reached practical ceilings to their capacity to employ technological improvements on existing combinations. During the fourth and fifth years of instruction, farmers reorganized and reallocated their productive resources to revised enterprise combinations. From the sixth year to the eighth year of instruction, farm income increased sharply and dramatically and continued to rise at a steady rate in the remaining two years reported in this study.

The indexed mean of the labor earnings of farmers participating in the Minnesota study are shown in Figure 1.

Figure 1.



¹Barton Morgan, Glenn E. Holmes, and Clarence E. Bundy, *Methods in Adult Education* (2nd ed.; Danville, Ill.: Interstate, Printers & Publishers, 1963), p. 158.

²C.E. Sisler, Jr. "The Need for a Two-Man Vocational Agriculture Department in the Greenbush School." Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1962.

³John S. Strohm, "What's a Farm Leader Worth?", *High Dollar Farming*, September 3, 1963.

⁴Edgar A. Persons, et al, *Investment in Education for Farmers*, Research Report Project No. 427-65, U. of Minn., St. Paul, 1968, p. vi and vii.

As can be seen from this study, the farmer who participates in the adult farm management program is not the sole beneficiary of his increased income. Probasco echoed this feeling when he noted that the benefits each individual farmer gains from participation in this program are small when compared to the aggregate of benefits to the entire community and to the school. It must be concluded, he says, that the school and the community, in the long run, are the biggest beneficiaries of a good adult farmer program.¹

But there are benefits of participation other than strictly financial. Hohenhaus found that farmers enrolled in a farm management program used their business analysis summary information in a variety of ways. The most popular use was to serve as an indicator of progress being made in the farm business. Other uses, in order of popularity, included aid in preparing income tax, making major decisions, making day-to-day decisions, and obtaining credit.²

Evaluation is concerned with placing values on processes, procedures, outcomes and activities. It is defined in the Dictionary of Education as "The process of ascertaining or judging the value or amount of something by careful appraisal."³

This suggests that the process of evaluation offers the teacher of adult agriculture, as well as program administrators and policymakers, a means of determining which procedures and outcomes are of greatest value, and then making wiser decisions regarding the future course of the program.⁴

The question is not whether adult educators should or should not evaluate the work they are doing. The work will be evaluated in some fashion or other anyway. The real question is whether the evaluation will be done well or done poorly.⁵

Informal evaluation is taking place continuously although less precise and less reliable than semi-formal or formal means of evaluation. Some means of evaluating informally include observing the work done, talking to the learners outside of scheduled meetings, and noting the changes, if any, in the learner's practices or methods.

Evaluation and appraisal of the adult program in agriculture takes place during every class meeting, at every conference, workshop, field trip or visit to the participant's farm. Students, members of their families, school administrators, teachers, and businessmen make such informal evaluations.⁶

It is important to evaluate skills, abilities, understandings, interests, appreciations, practices, and habits that the students have acquired in the course. The instructor should also evaluate the objectives of the course, the teaching materials used, and the methods and techniques which he followed.⁷

Program evaluation is going to be made whether the instructor does it or not. Sutherland says, "The lay public is going to evaluate our programs anyway and generally on the basis of misinformation or lack of information."⁸ But as Probasco concludes, "In the final analysis, it is the farmer's evaluation of the adult farmer program that spells its success or failure."⁹ Or as Clay Schoenfeld so adeptly puts it, "Adult education will never be what the educator may say it is; it will always be what the adult thinks it is."¹⁰

Hunsicker reminds us that it is important to recognize that evaluation is not an end in itself. It is only an instrument of judgement for determining the effectiveness of accomplishments.¹¹

¹Peter M. Probasco, "Criteria Used By Selected Minnesota Vo-Ag Teachers in the Adult Farmer Program," Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1961, p. 37.

²William E. Hohenhaus, "An Evaluation of the Vocational Agriculture Farm Management Program of Southern Minnesota," Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1964, p. 21.

³Ralph E. Bender, et al, *Adult Education in Agriculture* (Columbus, Ohio: Charles E. Merrill Publishing Co., 1972), p. 187.

⁴Ibid. ⁵Morgan, et al., p. 158. ⁶Bender, p. 187. ⁷Morgan, et al., p. 160

⁸Sutherland, p. 16. ⁹Probasco, p. 5.

¹⁰Clay Schoenfeld, "On Defining Adult Education" *School and Society*, 81:70. March 5, 1955.

¹¹H.N. Hunsicker, The Center for Research and Leadership Development in Voc. & Tech. Ed., *Evaluation and Program Planning in Agricultural Education* (Columbus: Ohio State University, 1966), p. 91.

Faust maintains that the program will be as effective as the instructor makes it. Determination and a feeling of desire to be of service will make the program grow. The reward, he says, is a feeling of accomplishment and knowledge that the vocational agriculture department has served the community well.¹

It may be argued that some of the desirable outcomes of the farm management program cannot be evaluated. Some of them are very hard to evaluate with precision. However, Dr. E.L. Thorndike, a pioneer for research in adult education, has said that whatever exists at all, exists in some quantity and can be measured.²

Callanan and Jackson stated that accountability means we are responsible for the educational needs of our students. It also means we must be able to determine whether or not we are meeting those needs. Indeed, if management education for farmers is important, then we as farm management instructors must be able to demonstrate accountability.³

They further note that the state is still promoting the "bigger is better" concept by passing legislation which sets the minimum number required to maintain a farm management program at 42 enrollees who have been in the program for less than 6 years. Further, at least 80% of the enrollees must have their farm business accounts analyzed. This measure of accountability may have merit as far as teachers being accountable to the State Department of Education. But it in no way measures our accountability to the farm families enrolled in the program.⁴

Sutherland says that evaluation, and particularly evaluation of educational programs, should be made in terms of the objectives (the purposes) of these programs.⁵ To evaluate the objectives of the course, we must know what the objectives are. Cook lists the objectives of adult education in agriculture as follows:⁶

1. To develop improved farming abilities and improved family living.
2. To provide information on approved practices and new developments in agriculture.
3. To contribute to more successful establishment in farming.
4. To encourage cooperation among farmers in programs which are beneficial to farming operations, i.e., artificial breeding units, dairy herd improvement associations, soil conservation, etc.
5. To enable the school to serve as a central place where ideas can be presented and ground work laid for projects, tours, classes and meetings.
6. To provide instruction in farm mechanics.
7. To develop an appreciation of the need for training in farm management practices.
8. To develop rural leaders.
9. To develop abilities which result in making the farm a better place to live.
10. To further satisfy the educational needs of the community.

Hauser lists the objectives of instruction in farm management as follows:⁷

1. To develop an appreciation of the vital need for training in farm management.
2. To train farmers how to decide upon the proper size of farm business they should operate.
3. To teach farmers skills in wisely selecting and combining the enterprises of their farm business.

¹P. James Faust, "Adult Program - Zero to 160 in Five Years," *Agricultural Education Magazine*, 48:41. August, 1975.

²Morgan, et al, p. 160.

³Paul Callanan and Dennis Jackson, "Accountability in Adult Farmer Education," *Agricultural Education Magazine*, 50:256. May, 1978.

⁴Ibid. ⁵Sutherland, p. 14.

⁶Glenn C. Cook, *Handbook on Teaching Vocational Agriculture* (Danville, Ill.: Interstate Printers & Publishers, 1947), pp. 651-652.

⁷H.J. Hauser, "Farm Management for Farmers in Minnesota," Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1957, p. 3.

4. To promote a cooperative effort among farmers and increase their ability to use the agencies which serve the rural population.
5. To train farmers how best to incorporate research and proven farm practices into their business.
6. To teach farmers skills in farm planning through the use of farm records, budgets, goals, outlook information, and the farm business analysis.
7. To train farmers in citizenship by encouraging conservation of soil and resources, participation in community activities and improvement in family living.

Peterson and Cochran listed the purposes of the Vo-Ag Farm Management Program as follows:¹

1. To provide more effective means for the teaching of farm management in vocational agriculture classes.
2. To provide research data for a more complete study of farm management.
3. To assist farmers to:
 - a. Organize farm business more profitably.
 - b. Detect and correct weak points in farming operation.
 - c. Determine accurately the status of the farm business from month to month and year to year.
 - d. Provide farms with records useful in establishing credit and obtaining loans.
 - e. Provide complete data for income tax purposes thereby assuring accurate returns and complete deductions.
 - f. To make it possible for farmers to get the most out of their farm business.

Knowles believes that the primary and immediate mission of every adult educator is to help individuals satisfy their needs and achieve their goals.² The primary purpose of the farm business management program is to help farm families increase the effectiveness of their farm business operation and achieve their family goals.³ Numerous methods and techniques can be and are utilized to accomplish this purpose.

The most common and important method of instruction used is the individual on-the-farm visit. Hohenhaus found that the majority of farm families rated on-the-farm instruction as the most valuable part of the instruction program. The most common comments were that more frequent scheduled visits are needed and definite work should be planned during the visit.⁴

Emphasizing the importance of the individual on-the-farm visit, Peterson stated that in all vocational agriculture programs, high school or adult, one essential ingredient is present – “well planned individual on-the-job instruction and counseling.”⁵

Further placing value on the individual visit to the success of the farm management program, Francis states, “A regularly scheduled consultation visit, with a planned purpose, to each member family is necessary to insure continuity and maximum accomplishment.”⁶

¹M.J. Peterson and G.R. Cochran, *Memorandum Regarding Cooperative Vo-Ag Farm Management Project*, Code IV-B-164, St. Paul, 1952.

²Malcom S. Knowles, *The Modern Practice of Adult Education* (New York: Association Press, 1977), p. 23.

³Gary W. Leske, M. Nagi Salem, and Roland L. Peterson, *An Analysis of the Work Load of Adult Farm Management Instructors in Minnesota*, Research and Development Series No. 6, U. of Minn., St. Paul, 1978, p. 1

⁴Hohenhaus, p. 24.

⁵Eugene V. Francis, “A Guide to On-Farm Instruction in Farm Management and Farm Business Analysis,” (unpublished Master’s dissertation, Dept. of Ag. Ed., U. of Minn.) p. i (foreward).

⁶Ibid., p. 1.

Bullard states that a vital part of the farm management instruction program is individual on-the-farm instruction. Here the instructor is able to guide the farmer in analyzing his records and aid in replanning his farm business.¹ Gadda suggests several ways to solve the on-the-farm instruction problems:²

1. Budget time effectively using an activity priority list, ranking activities in terms of their importance.
2. Group instruction whenever appropriate to utilize time more efficiently.
3. Make visits as frequently as needed, but at least three per year could be profitable.
4. The duration of a visit should be based on purpose and availability of time.
5. A calendar of visits should be scheduled with a definite purpose as to what is to be accomplished.

Guelker states that the number of visits to be made to a farm will depend upon the individual, but for most farmers, it will be desirable to make 12 visits per year the first two years, and at least 6 or 8 visits per year the remaining years. Most visits will be 2-3 hours in length. He further notes that farm visits are made to give a farmer guidance and instruction in planning and carrying out a program for his farm. They are not for the purpose of keeping the farmer's account book or substituting for the hired man.³

To tell a teacher how many visits he should make to fulfill the purpose of adult education is like telling someone how he should flex his muscles when throwing a ball sixty feet. The answer, obviously, is personal. If the one throwing the ball or the teacher making the visits meet their objectives, then they are doing satisfactorily, and vice versa.⁴

Successful teachers will make from 3 to 6 visits to the farms of their adult students each year. One thing is certain; the good teacher will not make as many visits as he would like to make nor as many as his students would like him to make.⁵

Bryson believes that most adult education is informal because students differ in preparation and experience. Consequently, formal class sessions are not only disliked, but are usually unproductive. He further maintains that generally all methods which offer an advantage in the teaching-learning situation should be used in adult education. He does not rule out the lecture method, but says it should be used with other methods.⁶

Bryson discusses the lecture method as used in adult education in the following:⁷ "If lecturing is bad, nothing can be said for it. If it is good, it is mostly a stimulus. When the stimulus leads to further intellectual effort, the effect is something worth having."

Since adult education in agriculture is voluntary, participating adults demand a suitable teaching and learning experience. Successful adult education programs provide the participants with what they want. They are not a captive audience and don't have to return. In general, they want the following:⁸

¹A.G. Bullard, "In Our Adult Farmer Program You Start With a Farm Management Core," *Agricultural Education Magazine*, 36:81. October, 1963.

²H.W. Gadda, "Improving the On-Farm Instruction of Young and Adult Farmers," *Agricultural Education Magazine*, 33:261. May, 1961.

³William E. Guelker, "A Proposed Adult Farmer Program for the Staples, Minnesota Community," Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1959, p. 36.

⁴Bender, et al., *Adult Education in Agriculture*, p. 127.

⁵Ibid.

⁶Lyman Bryson, *Adult Education* (New York: American Book Company, 1936), p. 79.

⁷Ibid., pp. 80-83.

⁸Bender et al., p. 19.

1. Adults want their learning to be useful
2. Adults want to be actively involved
3. Adults want competent teachers
4. Adults want methods which are effective
5. Adults want a desirable social experience

Stotesbery notes that the application of science and technology to agriculture is bringing about many rapid changes. Because of the constant and rapid change, learning becomes a life-long process which makes the provision of young and adult farmer programs not merely desirable but necessary.¹

Knowles also believes learning is a life-long process for the farmer when he states the following:² "The concept of lifelong learning is the only insurance the farmer has against obsolescence." He further warns:³ "The problem is that education is not yet perceived as a lifelong process. People feel they ought to know rather than how to keep finding out."

The Greek philosopher Epictetus even recognized education to be lifelong in nature. He is quoted as saying:⁴ "Education, in the deepest sense, is continuous and lifelong. In essence it is unfinishable. What we think we already know is often less helpful than the desire to learn."

The late Dr. Hamlin accepted the idea that education for farmers is a continuous process when he concluded that farmers need adult education in prosperity as well as in adversity.⁶ The need is recognized by those in education; the challenge is to get farmers to also recognize the need.

The great American philosopher and educator, John Dewey, stated that:¹ "Education cannot be considered for preparation for life; it is life itself; and therefore must be concurrent with it. Education must be a lifelong process."

Clarence Bundy recognized the fact that education is a lifelong process when he said,⁷ "The dynamic world in which we live requires each adult to frequently update his store of knowledge and skills."

The fact that farm management education is a continuing life-long process is clearly acknowledged by Palan:

Because agriculture is a dynamic industry, we cannot locate a problem, follow through an alternative, put a new plan into effect and expect the job of farm management to be completed. This will be a continuing process with new problems coming in and new solutions being found. Farm management decisions will be in various stages of consideration at all times.⁸

And just as education is a continuous process, so is evaluation. Hensel summarized this idea very well when he said,⁹ "Evaluation is a continuous process – not something we can turn on or turn off at will."

¹Marvin B. Stotesbery, "The Instructional Areas in a Program of Education for Young Farmers in the Faribault Area," Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1965, p. 72.

²Malcolm S. Knowles, "The Future of Adult Education," *School and Society*, 90:289. Summer, 1962.

³Knowles, *Modern Practice of Adult Education*, p. 23.

⁴Morgan et al, p. 14.

⁵Herbert M. Hamlin, *Agriculture Education in Community Schools* (Danville, Ill.: Interstate Printers and Publishers, 1949), p. 62.

⁶H.A. Overstreet and B.W. Overstreet, *Leaders for Adult Education* (New York: George Grady Press, 1941), p. 24.

⁷Clarence E. Bundy, "Reaching the Adult with Vocational Education," *The Individual and His Education*, ed. Alfred H. Krebs (Washington, D.C.: The American Vocational Association, 1972), p. 329.

⁸Ralph L. Palan, "A Program of Instruction for Adult Farmers in Agriculture," Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1962.

⁹James W. Hensel, The Center for Research and Leadership Development in Voc. and Tech. Ed., *Evaluation and Program Planning in Agricultural Education* (Columbus: Ohio State University, 1966), p. 9.

Sutherland recapitulated this concept by saying:

The importance of continuous assessment and appraisal to maintaining effective programs of vocational education in agriculture hardly needs documentation. Paraphrasing a statement made by Dr. Grant Venn, "Evaluation must be a continuous process, not a vaccination to make a program immune to the need for subsequent change."¹

Dr. Mortimer J. Adler, American educator and philosopher, uses the human body as an analogy to the human mind. He states that:

We do not expect our bodies to stay alive and healthy without the daily sustenance of food and the continual invigoration of exercise. Why should we expect our minds to stay alive and vigorous without regular sustenance and exercise?

Last year's or even yesterday's feeding will not suffice the body. Past reading and thinking will not suffice the mind either. Without exercise, the mind, no less readily than a muscle, atrophies. Without the sustenance it draws from ideas, the mind shrinks and withers.²

Routhe states that adult farmers can and do learn. They make demands on every agency connected with agriculture for the latest information so they can do their work more efficiently and profitably. He further notes that the schools in Minnesota meet this demand through their adult education program in agriculture. The overall objective of this program is to increase the efficiency of farming and attain a higher standard of living for the rural population. Those attending classes have one desire – to learn all the new techniques that will help them achieve a more profitable farm business.³

Hamlin recognized the far-reaching effects of adult farmer education when he concluded that adult classes help farmers to learn from each other and to use effectively the agricultural agencies which have been placed at their disposal. He even went so far to say that adult education has a contribution to make to the mental health of farmers.⁴

A study to determine what the farm business management program means to the farm families enrolled was conducted by Francis (1975).⁵ He found that the program means the following:

1. Having a sure knowledge of their financial picture.
2. Improved earnings that provide better living standards.
3. A better understanding of the total workings of the farm business by all members of the family.
4. A much better grasp of how their business is progressing, how it compares with others, and where improvements are needed.
5. That accurate "cost of production" estimates can be made for each enterprise.
6. Makes possible the forming of a solid farm partnership or corporation.
7. Development of a "sense of awareness" of one's business that creates improved family attitudes, a better self-image and a desire to further improve abilities.
8. Development of a questioning attitude by the farm family.
9. More intelligent purchasing of equipment, facilities, and farm inputs and better understanding of marketing procedures.
10. Opportunity for more families to remain an economic farm unit and raise their family in a rural setting.
11. Opportunity to discuss some of the major aspects of their farm business with someone who is knowledgeable of their future goals and past performance.

¹Sutherland, p. 13.

²Morgan et al., p. 16.

³Harlund Routhe, *The Farm Management Approach to Adult Education in Agriculture in Minnesota*, Paper for Ag. Ed. 104, U. of Minn., St. Paul, 1951, p. 3

⁴Hamlin, p. 62.

⁵Eugene V. Francis, "Farm Business Management Program: What Does It Mean?", *Agricultural Education Magazine*, 48:32. August, 1975.

Todd believes that the need for adult education is not limited to any specific discipline or vocational field, but that the need is very urgent in agriculture. He says that the precariousness of the world's food situation attests to the importance for extending educational opportunities in agriculture to those engaged in farming. Since these persons have means for immediately placing into practice the skills and ideas learned, the results from their involvement in adult education is very effective. The need for adult education in agriculture is further emphasized when considering that a rather minimal number of farmers are expected to produce more food from less acreage than during any other era in American agriculture.¹

Atherton adeptly points out that the framers of our basic vocational education act, The Smith-Hughes Act of 1917, recognized the need for training adults in agriculture. Section 10 states in part:

that such education shall be less than college grade and be designated 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 farm home.

He then calls our attention to the implication being made that the first emphasis be given to those now engaged in agriculture.²

A generally recognized and accepted fact is that the adult education program for farmers should include three identifiable phases: (1) the farm management phase, (2) the mechanized agriculture phase, and (3) the enterprise phase. Each of these phases is important in meeting the needs of the participating farmer.

Palan notes that the average farmer in southern Minnesota has more than half of his capital invested in machinery, equipment, and buildings. This major area of investment and use cannot be overlooked in any comprehensive adult farmer program. He suggests that this area of study should include a determination of the need for and selection of machinery, equipment, and buildings as well as the economics of ownership.³

Palan recognizes that a series of meetings be conducted each year on some specific area of mechanized agriculture. One year it may be concerned with operation, adjustment, maintenance and repair of harvesting machinery. Another year it may deal with planting machines, materials handling or farm building construction. This should be determined according to the needs and interests within the community.⁴

The enterprise phase of the adult education program is necessitated, says Palan, due to technological changes making the approved practices of yesterday an out-of-date practice today. For this reason it is necessary to systematically provide an opportunity for the farmers in the community to get up-to-date on new production and management practices within an enterprise. This can be done, he notes, by offering one or more courses each year in such areas as swine feeding and management, crop production, dairy feeding and management or other enterprises. These again should be determined by the needs and interests in the community.⁵

Johnson states that in this age of tremendous technological evolution in agriculture, agriculture today is no place for the weak, the ignorant, or the indifferent. The farmer must study his business and fit practical ideas to his own operation to keep up with the progress of our time.⁶

Bundy notes that American agriculture has been changing rapidly in recent years due to technological, economic and social developments. It is estimated that agricultural technology doubles each ten years and that many practices and machines become obsolete in five.⁷

¹ John D. Todd, "The Role of the Vocational Agriculture Teacher in Adult Education," *Agricultural Education Magazine*, 48:34. August, 1975.

² J.C. Atherton, "Include Adult Education in the Annual Program," *Agricultural Education Magazine*, 47:159. January, 1975.

³ Palan, p. 8.

⁴ Ibid., p. 9.

⁵ Ibid., pp. 9-10.

⁶ Earl Johnson, "The Need and Importance of Adult Education," *The Visitor*, 47:2. April, 1960.

⁷ Clarence E. Bundy, "Technical Education for Farmers," *Agricultural Education Magazine*, 40:181. February, 1968.

Palan feels the farm management phase of the adult education program must have definitely enrolled members, an enrollment limited to the number that can be given individual attention and on-the-farm instruction, and definite teaching units so that the farmer can identify his problem before attempting a solution to it. These requirements are no different than those used with any course in adult agriculture.¹

Cvancara concludes that the major problem of farming is one of adjustment to changing conditions, most of them economic. The need for management decisions, he maintains, arises out of changes on the farm and environs, and the necessity of adjusting farm operations to these changes. Modern farmers must adequately arm themselves with knowledge to intelligently deal with these changes.²

Duis maintains that the farmer is constantly faced with decisions which must be made correctly if he is to maintain his role as a productive citizen in today's society. This situation, he says, poses one of the most serious problems confronting today's farmer, that is, "how to effectively organize and use resources available to him. Right decisions result in a good chance in making money while wrong decisions lead to failure."³

Hodgkins notes that the farm management approach means to first find the problems in the business, teach according to those findings, apply what is taught to the problem and evaluate the results.⁴

Persons, et al, studied what the typical enrollment distribution was for a well-organized farm business management program. Their findings reveal the following:⁵

Years Enrolled	No. of Families Enrolled
1	10
2	9
3	9
4	7
5	5
6	4
7	4
8	3
Total	51

Research done a few years later at the University of Minnesota by Ed Persons and others indicate the average full-time adult farm management instructor in Minnesota serves 54 farm families of which 45 annually have their farm businesses analyzed. They further found that only 40-45% of the farmers who initially enrolled in a farm management program were still enrolled five years later. The level of retention, by years from initial enrollment, follow this pattern:⁶

Years After Initial Enrollment	Level of Retention - % -
1	100
2	70
3	55
4	48
5	43

¹Palan, p. 12.

²Joseph Cvancara, "Do Increases in Farm Output Exceed the Communities' Input Costs of Farm Management Instruction?", *The Visitor*, 52:1. April, 1965.

³Harold F. Duis, "A New Approach to Teaching Farm Management is Necessary," *Agricultural Education Magazine*, 36:51. September, 1963.

⁴Delbert L. Hodgkins, "Techniques and Methods of Instruction in Farm Management," Colloquium Paper, Dept. of Ag. Ed., U. of Minn., 1957, p. 16.

⁵Persons, et al, p. 31.

⁶Edgar Persons, et al, from material presented during Ag. Ed. 5-052 at the University of Minnesota, St. Paul, 1978.

Leske found that as the longevity of a program increased, the total enrollment often continued to increase because advanced students did not voluntarily leave the program and new students were being added. Teacher work loads became excessive, particularly during the first three months of the year during which time the farm record summaries and analysis are completed and interpreted.¹

Hohenhaus warns that the instructor must not become burdened with advanced members and ignore the demand for service by potential farm cooperators.² This was also the feeling of the Minnesota State Legislature stating that “each full-time farm management instructor must have at least 42 enrollees with less than 6 full years of instruction.”

Painter predicted that in the eyes of the State and from an administrative standpoint, farm management programs would be evaluated on the basis of how many farmer cooperators each had. In 1970, he said:³

The future of the analysis program is in no small measure dependent upon the quality of account books provided. I feel certain that we soon will be evaluated on the basis of 50 farm management cooperators to be approved for a full work load. To do this most of us will need to offer much more instruction in record keeping.

Peterson and Hemming suggested that it would be very helpful for a teacher to attempt to determine how many families he can properly instruct. They illustrate the procedure as follows:

Teacher's time available annually (40 hours weekly for 50 weeks)	2000 hours
Time Expenditure	
Administration including class preparation (8 hours weekly for 50 weeks)	400
Community service and school responsibilities (3 hours weekly for 50 weeks)	150
State Conferences and other meetings	80
	<hr/>
Subtotal	630
Time available for farm calls (2000 – 630)	1370
Number of farmers to enroll (1370 divided by 12 visits times 2.5 per visit)	45
Class time in excess of budget (3 classes of 14 meetings of 3 hours)	126

It should be noted, they further emphasize, that experience would indicate that additional instructor time will be demanded at the time of closing yearly records. A conservative estimate would be the equivalent of an additional 112 hours of work for the closing period of about six weeks. Hypothetically then, an average work week for a 45 family program would include at least 45 hours of effort for 50 weeks ($2238 \div 50$).⁴

Guelker believes that since public funds are used to support the vocational agriculture program, the agriculture teacher is morally obligated to provide training for the farmers who can benefit from it. He further notes that after a period of 5 years of intensive training, the farmer should have learned the techniques of management and planning well enough to get along on his own with only occasional help from the teacher. The farmer should continue to keep the Minnesota Farm Account Book and belong to the Vo-Ag Farm Management Program for as long as he is actively engaged in farming.⁵

¹Gary W. Leske, “An Evaluation of Instructional Innovation for Adult Agricultural Education in Farm Business Management,” Doctor’s Dissertation, Dept. of Ag. Ed., U. of Minn., 1970, p. 11.

²Hohenhaus, p. 25.

³Charles Painter, “Area Coordinator’s Newsletter,” (Austin: Austin Area Voc. Tech. Institute, April, 1970), p. 2.

⁴Clarence Hemming and Milo J. Peterson, *Farm Business Management, An Instructor’s Guide*, Department of Health, Education and Welfare, Washington, D.C., 1967, p. 8.

⁵Guelker, pp. 21, 34.

An analysis of the work load of the adult farm management instructors in Minnesota was made by Leske, Salem, and Peterson in 1978. Actual weekly reports of activities conducted and time allotted to each by adult farm management instructors were studied. The results showed the following:¹

1. A full-time adult farm management instructor spends an average of 51 hours per week on the job.
2. The average full-time adult farm management instructor had 49 farm businesses enrolled in his program with 39 having their farm records analyzed
3. Paid employment other than teaching was engaged in by 8% of the instructors and 23% were engaged in farming
4. On-farm instruction and teaching various classes occupy the greatest percent of the instructor's time.

The priority given to various activities varied greatly from instructor to instructor. The various activities participated in and the percentage of time devoted to each were as follows:

On-farm instruction	42.8 - 70.1%
Professional meetings and travel	9.7 - 15.0%
Teaching Vo-Ag and FFA	8.0 - 19.4%
Teaching adult farm management	8.0 - 9.8%
Planning lessons	7.9 - 13.6%
Teaching enterprise, mechanics and young farmer classes	7.3 - 13.1%
Non-teaching activities	6.5 - 11.7%
Community services	6.2 - 9.3%
Obtain and prepare aids, maintaining facilities	4.2 - 25.4%
Administration	4.0 - 8.3%

Peterson and Hemming presented guidelines for allocation of the farm business management instructor's time. These guidelines are as follows:²

On-farm instruction	60.5%
Administration and class preparation	20.0%
Class time	8.0%
Community service and other school responsibilities	7.5%
State conferences and other professional meetings	4.0%

The activities conducted by adult farm management instructors vary because of the variety of priorities these instructors have. Todd was perceptive of this when he said:

It is realized that vocational agriculture teachers are busy individuals. Conducting adult programs involves much effort. The amount of time available for conducting adult programs depend upon the existing teaching commitments, the number of hours that a person is willing to spend in performing professional duties, and the priorities that are established for different facets of the total vocational agriculture program.³

Much has been said about where adult farm management programs are and where they have been. The analysis and evaluation of these programs should act as a stimulus to improve programs. At a national seminar in Ohio in 1966, James W. Hensel had this to say about the process of evaluation:

We must not only ask ourselves to evaluate the road we are traveling, but we must also determine whether there might be a better road. Through evaluation we should not only be able to determine what our programs are, but also to locate the gaps between what we *are* doing and what we *could* be doing.⁴

Hensel further notes that the key to effective evaluation is an open and positive attitude of the evaluation. Evaluation must be viewed as a means to improve the program – a technique for finding the best possible route. We cannot improve unless we can identify the strong as well as the weak spots in our program.⁵

¹Leske, et al, pp. 9, 13, & 20.

²Hemming and Peterson, p. 8.

³Todd, p. 34.

⁴Hensel, p. 11.

⁵Ibid.

Results of the Study

One of the areas of confusion and misunderstanding centers around the length of time the adult farm management program can be beneficial to the participant. Educational programs should be designed to meet the needs of the people they are intended to serve. If the program is failing to meet needs, certainly limitations, modifications, and possible discontinuation should be considered.

The study addressed itself to this concern. Although there is a considerable difference of opinion, as noted in Table 1, the majority of all of the groups sampled felt that the adult farm management program could be beneficial to its participants for more than 10 years.

Table 1
Number of Years Participants Can Benefit From
The Adult Farm Management Program

Years Program Enrollment Can Be Beneficial	- Percent Responding -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors (n = 34)	Program Admin. (n = 28)
	1-3 (n = 57)	4-6 (n = 53)	> 6 (n = 119)		
1 to 3	7	0	2	0	7
4 to 6	18	9	5	3	32
7 to 10	21	13	10	9	7
More than 10	54	78	83	88	54

It is important to note that the longer a farmer is enrolled in the program, the more benefit he can envision through continued participation. It is obvious that some have already been enrolled for a longer period of time than they perceive to be beneficial. However, the percentage of such cases is extremely small.

About one-third of the program administrators feel the adult farm management program is beneficial to the participant for 6 years or less. This appears to be a response generated by recently adopted rules and regulations rather than assessment of the needs of the farmer-cooperators. However, over one-half of the program administrators agree that the program can be beneficial for more than 10 years.

Enrollment in an educational program continues as long as the individual can benefit from participation. The adult farm management program is no exception. Some of the contributions the enrolled family can expect to receive from program participation were listed for the surveyed groups to study and then rank according to the expected importance of the contribution to the family. The results appear in Table 2.

The unanimous feeling of the various groups surveyed indicate that the most important contribution the farm family receives from program participation is improved management skills. The least important contributions the program has to offer is less workload and community social aspects gained through attendance at banquets, tours, and class meetings.

Table 2
Contributions to the Family from Participation in the Adult Farm Management
Program Ranked in Order of Importance

Family Contribution	Farmers by Years of Enrollment			Farm Mgmt. Instructors (n = 34)	Program Admin. (n = 24)
	1-3 (n = 58)	4-6 (n = 50)	> 6 (n = 113)		
Increased Earnings	3	3	2	2	3
Less Workload	9	9	9	10	10
Improved Outlook on Farm Business Opportunities	5	6	7	7	5
Improved Management Skills	1	1	1	1	1
Better Knowledge of the Capabilities of Yourself and Your Business	2	2	3	4	2
Exchange of Ideas, Skills, and Techniques Gained through Class Discussion, Tours, and Instructor's Visits	7	7	6	3	6
Community Social Aspects Gained through Attendance at Banquets, Tours, and Class Meetings	10	10	10	9	9
Development of Greater Confidence in Actions Taken and a Feeling that Greater Goals can be Accomplished	6	4	5	5	4
Considering the Farm Operation More as a Business than a Way of Life	8	8	8	8	7
A Feeling of Greater Security in the Business Decisions Made	4	5	4	6	8

The variability of the responses to the importance of an improved outlook on farm business opportunities as a contribution indicates that possibly the outlook becomes more questionable as more information is known. Farmers who have been enrolled for more than 6 years and farm management instructors ranked this item lower than the farmers who have been enrolled for 6 years or less and the program administrators.

Various forms of instruction are employed in conducting the adult farm management program. Some programs rely more heavily on certain forms of instruction than others. Few programs involve themselves with all of the forms of instruction. Table 3 indicates that the most favored type of instruction by all of the people involved is the individual on-farm visit. This has long been credited for the strength and usefulness of the adult farm management program and rightfully so.

Table 3
Type of Instruction
Benefited Most From

Type of Instruction	– Rank of Importance –				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 58)	4-6 (n = 51)	> 6 (n = 114)	(n = 35)	(n = 27)
Classroom Meetings	3	2	3	2	2
Farm Tours with Prepared Material	4	4	4	4	3
Farm Tours in Small Groups with Impromptu Questions and Answers	2	3	2	3	4
Individual Farm Visits to Your Farm by Instructor on Scheduled Basis	1	1	1	1	1
Newspaper Articles of Local Concern	7	7	7	7	7
Monthly Farm Management Newsletter	6	6	6	6	6
Farm Demonstration Plots	5	5	5	5	5

Close agreement exists between all of the groups sampled as to the relative position a type of instruction has in terms of its benefit to the participants. The greatest benefit is received from on-farm visits, classroom meetings and farm tours. The least benefit comes from farm demonstration plots, monthly farm management newsletters and newspaper articles.

The benefits and assistance in operating a farm business that can be obtained from participation in a farm management program varies tremendously from one program to the next. Usually the benefit and assistance that is provided depends upon the strengths of the instructor. However, a number of benefits and business assistance is expected and demanded by the program participant.

This study attempted to determine the general benefits and assistance that is currently provided by the adult farm management program. The farmer-cooperators should know what they think is provided, while the teachers and program administrators should know what they think they are providing. Table 4 shows that some tremendous gaps exist between what is and what is thought. The effectiveness of the farm management program is not dependent upon what is thought to be provided but rather upon what is actually realized by the participants.

Table 4
Benefits of Program Participation Currently Provided

Program Benefits	- Percentage Saying Benefit Provided -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors (n = 35)	Program Admin. (n = 30)
	1-3 (n = 58)	4-6 (n = 56)	> 6 (n = 123)		
Assistance in Keeping Accurate Farm Records	98	100	100	100	100
Interpretation of Your Farm Operation Analysis Report	97	100	100	100	100
Assistance with Crop Planning and Soil Management	72	68	75	91	87
Livestock Feeding and Ration Improvement	66	66	68	89	80
Farm Business Credit Planning	74	70	68	97	97
Assistance with Cash-Flow Projections	84	66	72	94	87
Aiding with Building and Machine Purchases	67	68	65	77	80
Assisting with Building and Farmstead Layout	48	48	56	83	73
Income Tax Management and Planning	93	93	92	89	87
Income Tax Preparation and Filing	60	59	68	43	50
Assistance with Estate Planning	53	59	63	86	70
Creating an Understanding of the Farm Product Marketing Options Available	48	52	63	74	87
Assistance with Livestock Health	28	32	38	63	63
Aiding in the Improvement of Quality of Livestock Production	57	45	55	83	73
Livestock Breeding and Genetics	36	32	38	66	63
Crop and Herbicide Demonstration Plots	67	64	72	66	60
Assistance with the Understanding of Farm Machine Repair and Maintenance	22	23	32	31	40
Development of Mechanical Skills, such as Welding and Electrical Wiring	21	29	34	40	43
Assistance with Knowledge of Crop Harvesting and Handling Alternatives	45	55	63	77	67
Assisting with Suggestions for Farm Building Repair and Modification	50	38	56	80	57
Assisting in Establishing Family and Business Goals	71	75	82	97	83

Generally the farm management instructors and program administrators think that the program is providing many more benefits and operational assistance than the farmers-cooperators are aware. However, it certainly must be recognized that what is provided may be known only to the participant who has made use of the benefit or assistance.

The areas where definite agreement exists as being provided are assistance in keeping accurate farm records, interpretation of the farm operation analysis report, and income tax management and planning. Almost all of the adult farm management programs provide these forms of assistance. There is also consistency of agreement that crop and herbicide demonstration plots are provided, but in only $\frac{2}{3}$ of the programs.

One benefit that the farmer-cooperators say is provided but that the teachers and program administrators don't as greatly agree is income tax preparation and filing. This study later reveals that the performance of service functions for farmers, such as income tax preparation, is a high priority expectation farmer-cooperators have as an activity in which the management instructor should be involved.

The survey provided the respondent the opportunity to list benefits or assistance currently provided that was not already included in the list as given. Farmer-cooperators added "exposure to computer decision aids" and "no till and minimum tillage cropping." Farm management instructors added "computer decision aids," "analysis averages for area," "futures marketing for crops," "local summary of crop data," "chemical application and incorporation," "use of leisure time," "minimum till farming," and "understanding of SCS-ASCS programs." Program administrators added "assistance with farm partnerships" and "assistance with family farm security act."

The objectives of the adult farm management program are as follows:

1. Assistance in setting goals and planning.
2. Assistance in keeping complete and accurate farm records, including inventories.
3. Assistance in interpreting and analyzing farm records.
4. Technical assistance relative to crops, livestock, building and equipment.
5. Assistance in planning, implementing and evaluating changes in the farm business for more efficient and profitable use of resources.
6. Improved family and community life through development and application of sound management decisions and practices.

The various groups sampled were asked to rank these objectives in the order of priority they felt the program of instruction should have. The results appear in Table 5.

The ranking of these objectives was fairly consistent between the farmers, teachers and administrators. It was felt that the top priority the program of instruction should have is assistance in keeping complete and accurate farm records. It was further agreed that the lowest priority should be placed on improved family and community life through development and application of sound management decisions and practices.

Table 5
Adult Farm Management Program Objectives
Ranked in Order of Priority

Program Objectives	Farmers by Years of Enrollment			Farm Mgmt. Instructors (n = 34)	Program Admin. (n = 25)
	1-3 (n = 57)	4-6 (n = 54)	> 6 (n = 118)		
Assistance in Setting Goals and Planning	4	4	4	3	4
Assistance in Keeping Complete and Accurate Farm Records Including Inventories	1	1	1	1	1
Assistance in Interpreting and Analyzing Farm Records	2	2	2	2	3
Technical Assistance Relative to Crops, Livestock, Buildings and Equipment	5	5	5	5	5
Assistance in Planning, Implementing and Evaluating Changes in the Farm Business for more Efficient and Profitable Use of Resources	3	3	3	4	2
Improved Family and Community Life through Development and Application of Sound Management Decisions and Practices	6	6	6	6	6

As discussed earlier, classroom meetings ranked high as a type of instruction that participants gained the most benefit from. However, there are many different types of classroom meetings. The form used, once again, depends upon the strengths of the instructor. Table 6 shows the agreement between the farmer-cooperators, management instructors and program administrators that the discussion lecture with the use of visuals is the type of classroom meeting preferred provided the visual's print is not too small to read on the overhead projector screen. The same discussion lecture without visuals is one of the classroom types least preferred as is also the use of worksheets.

Table 6
Type of Classroom Meeting Desired
Ranked in Order of Preference

Classroom Activity	Farmers by Years of Enrollment			Farm Mgmt. Instructors (n = 35)	Program Admin. (n = 23)
	1-3 (n = 54)	4-6 (n = 50)	> 6 (n = 116)		
Discussion Lecture with Visuals	1	1	1	1	1
Discussion Lecture without Visuals	8	7	7	8	8
Worksheets to Work On	7	8	8	6	7
Demonstrations	3	4	3	3	2
Panel Discussion	6	6	4	2	5
Small Groups Working Together	5	5	6	5	3
Question and Answer Session	2	2	2	4	4
Viewing Films and Slides	4	3	5	7	6

The farmer-cooperators also like the question and answer session very much while teachers and administrators are lukewarm towards this type. Farmers further like the viewing of films and slides more than teachers and administrators do. Teachers are under the impression that the panel discussion is a well-liked classroom type while the farmer-cooperators rank this type near the bottom during the first few years enrollment.

Possibly one of the program administrators best summarized the classroom meeting type preference when he stated, "Singly none of these is best; a variety of teaching techniques with the involvement of class members is needed."

The on-farm visit is the type of instruction from which everyone feels the most benefit can be derived. The question then becomes how often the instructor should make on-farm visits to his farmer-cooperators. The answers are as varied as the people who are enrolled in farm management programs and the kind of emphasis the instructor places upon it.

Table 7 clearly shows that more on-farm visits should be conducted during the first few years of enrollment than is conducted after 6 years of participation in the program. Program administrators feel more frequent on-farm visits are necessary than farmer-cooperators or management instructors feel. One administrator said, "Absolutely no less than monthly; perhaps twice a month."

Table 7
Frequency of On-Farm Visits Desired

Frequency of Visit	- Percent Desiring -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 56)	4-6 (n = 54)	> 6 (n = 123)	(n = 32)	(n = 29)
Monthly	45	33	16	41	62
Six Times Yearly	37	33	32	47	28
Twice Yearly plus Necessary Analysis Visits	9	30	42	12	10
Only Necessary Visits to Complete the Analysis	4	0	4	0	0
Only When Asked to Come Out	5	4	6	0	0

As noted in Table 7, a small percentage of the farmer-cooperators felt a very minimal number of on-farm visits was necessary. Some would be satisfied with only necessary visits to complete the analysis and others would like the instructor to make an on-farm visit only when asked to do so. Certainly the farm management instructors and program administrators are aware of such individual differences, but do not consider these options as desirable.

The farmer-cooperators were quick to point out that the frequency of on-farm visits needed varies with the individual enrolled. Every student has different needs. One said, "The frequency of visits can only be worked out between the instructor and student. Neither side should be locked into a schedule."

The farm management instructors had a few comments of their own concerning the frequency of on-farm visits. One instructor said, "Make monthly visits when just getting started and class numbers are low; make 6 visits per year for people enrolled beyond 2 years and when class numbers are above 45." Another said, "Make 6 visits the first year and quarterly thereafter unless a special project is involved." And finally, "Use an instructional plan developed by the instructor and the cooperator based on his needs and wants. In addition the instructor should recognize problem areas and respond to and anticipate problems."

The farm management instructors were further asked how many on-farm visits they actually do conduct per year per program participant based on the length of time enrolled. As shown in Table 8, the number of visits per year declines as the length of time enrolled increases. These results are based on the responses from 38 instructors.

Table 8
Average Number of On-Farm Visits Conducted
Per Year Per Program Participant

Year of Enrollment	Number of Visits
1	10
2	9
3	8
More Than 3	5

Likewise, classroom meetings rank high as a type of instruction from which participants benefit. The question is how many classes should be conducted to explore a particular topic. Again, the answer is dependent upon the individuals involved. Some just can't get too many classroom meetings to attend and others could care less about attending any meetings at all. The variety of preferences is shown in Table 9.

Table 9
Number of Classes Preferred for the Exploration
of a Topic of Interest

Number of Classes	- Percent Likely to Attend -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 57)	4-6 (n = 55)	> 6 (n = 123)	(n = 35)	(n = 30)
10 or More	14	7	2	3	13
5 to 10	39	31	28	23	47
1 to 4	42	62	69	71	40
None	5	0	1	3	0

Just as the program administrators feel a high number of on-farm visits should be conducted, so they also feel a fairly high number of classes should be conducted. They further all agree that classroom meetings should be offered, regardless of number.

Most of the farm management instructors feel that from 1 to 4 classes is sufficient to explore a topic of particular interest, just as do many of the farmer-cooperators. Not all of the instructors agree that classes are important. Some feel the absence of classes is okay as do some of the farmer-cooperators.

The adult farm management program involves a number of classes that should be conducted to further detail the record-keeping procedures and business analysis as well as to motivate the program participants. The general recommendation has been to conduct annually about 10 of these management classes for each of the groups enrolled. In Minnesota a course of study for adults has been put together for the first year of instruction by Persons, Palmer and Palan to serve as a guide for classroom instruction.¹ A similar guide for the second and third years of instruction will soon be available.

The farm management instructors included in the study were asked how many management classes they annually conduct per group enrolled. Table 10 summarizes those responses. As expected, the number of classes conducted per year declines as the length of time enrolled increases. As the participant gains experience in the program, he should begin to understand the "how" and "why" of record keeping and the meaning of his annual business analysis.

¹Edgar A. Persons, Rodger E. Palmer and Ralph L. Palan, *Farm and Ranch Management Education - A Course of Study for Adults, Volume I* (White Bear Lake, Minnesota: Minnesota Instructional Materials Center, 1977), 193 pp.

Table 10
Average Number of Classes Conducted
Per Year Per Program

Year of Enrollment	Number of Classes
1	8
2	7
3	5
More Than 3	4

Although a course of study is available for making the management classes more meaningful, not all farm management instructors are aware of its availability. The study shows that 8% of the instructors did not know a suggested course of study exists. It further shows that only 73% of those aware of its availability actually use it. Some instructors stated they were topic-oriented rather than management-oriented.

One of the objectives of this study was to define changes in farm practices, behavior or attitudes that people in the farm management program attribute to their participation. The study addressed this objective by requesting the various groups surveyed to give their perceptions of the changes they have experienced, or observed, that can be attributed to program participation. The results are shown in Table 11.

Table 11
Practices, Behavior and Attitudes Perceived to be the Result of
Adult Farm Management Program Participation

Practice, Behavior, or Attitude	- Percent Attributing to Program Participation -				
	Farmers by			Farm Mgmt. Instructors	Program Admin.
	Years of Enrollment				
	1-3 (n = 47)	4-6 (n = 45)	> 6 (n = 112)	(n = 33)	(n = 29)
Keeping an Accurate Set of Business Records	96	98	99	100	100
Greater Concern for the Quality and Quantity of Feed Fed	49	60	63	79	41

Practices that definitely can be attributed to program participation include the keeping of an accurate set of business records, income tax planning and the use of farm records as the basis for decision-making. As indicated earlier, almost all of the adult farm management programs provide these forms of assistance. This reiterates the fact that these benefits are not only available but are being utilized and practiced as well.

Farmer-cooperators also showed a strong feeling that their participation resulted in them being more content with the farm business they had. Teachers also perceived this change in attitude existed. Administrators, not being as close to the program or as familiar with the participants, weren't quite as sure that this change could be attributed to program participation.

Other changes that about half of the farmer-cooperators credit their program participation for include a greater concern for the quality and quantity of feed fed, using improved livestock housing facilities, use of more labor-saving equipment, using more effective herbicides and insecticides, soil testing before fertilizing, constructing a periodic cash-flow projection, keeping the credit institution properly informed, attending tours and meetings to keep current in areas of personal importance, greater income for family living, increased net worth, and an improved attitude toward risk and risk-taking.

Using Artificial Insemination or Greater Concern in Quality Breeding	21	16	25	52	31
Greater Concern for Livestock Health	36	40	41	73	45
Using Improved Livestock Housing Facilities	47	47	55	76	38
Use of More Labor-Saving Equipment	38	56	57	58	45
Using Improved Marketing Methods	38	33	33	76	66
Use of Recommended Crop Varieties	40	40	55	73	41
Using More Effective Herbicides and Insecticides	51	53	65	91	66
Soil Testing Before Fertilizing	51	53	58	85	62
Tissue Testing to Evaluate Fertilizer Utilization	2	4	4	15	7
Conducting Personal Test Plots to Aid in the Decision-Making Processes	28	16	36	48	28
Using Narrower Rows	17	24	33	33	7
Using Certified Seed	32	27	38	48	14
Using Improved Crop Handling Equipment	32	38	41	61	28
Constructing a Periodic Cash-flow Projection	51	64	39	85	72
Keeping the Credit Institution Properly Informed	40	60	51	82	41
Constructing an Estate Plan	23	40	53	72	55
Involved with Income Tax Planning	81	78	82	97	83
Using Farm Records as the Basis for Decision-Making	83	91	94	100	93
Involved in More Community Organization	11	9	20	24	10
Officer or Leader in an Organization	6	20	21	24	10
Attend Tours and Meetings to Keep Current in Areas of Importance	57	62	62	70	59
Subscribe to and Read More Farm Publications	32	33	37	42	17
Participate in More Social Functions and Community Activities	6	16	13	18	7
Attitude Towards Education has Changed	38	31	48	82	41
More Content with the Position Held in Life	38	40	41	58	31
More Content with the Farm Business Operation	66	71	77	88	48
Involved in Political Activity of Some Sort	8	7	4	27	10
Enjoying More Leisure Time	15	9	20	36	21
Greater Income for Family Living	47	56	68	85	59
Greater Income for Family Living Compared to Others in the Community that are not Program Participants	13	29	37	42	45
Increased Net Worth	47	64	73	79	38
Improved Attitude Toward Risk and Risk-Taking	53	51	54	70	45

The farm management instructors sampled perceived many changes in practices, behavior and attitudes due to program participation. All of these changes are attributable to program exposure for some individuals, but not to the degree expressed in many instances by the instructors. However, it is well to note that the program does have some far-reaching effects and can create some tremendous changes in businesses and individuals.

Program administrators are aware of some of the more obvious effects the program can take credit for, but are unsure of the relationship between some changes and program participation. They particularly do not perceive program participation to be responsible for concern over the quality and quantity of feed fed, use of narrower rows, use of certified seed, subscribing to and reading more farm publications, or increased net worth.

It is also quite evident that some changes in practices or attitudes take more than 3 years to be realized or at least takes that long to recognize program participation as being responsible for their adoption. Examples here include the use of narrower rows, the construction of an estate plan, being an officer or leader in an organization, greater income for family living, greater income for family living compared to others in the community not participating and increased net worth.

It is important to note that many of these beneficial changes in practices, behavior or attitudes are adopted to a larger degree as the participants are enrolled for a greater number of years. The process of education and eventual change takes considerable time. In some cases, change may not be needed or never takes place. However, these instances are generally a small percentage.

There are numerous reasons why farmers enroll in the adult farm management program. The most common reason by far for enrolling is for the complete record system provided and the farm business analysis. Other reasons for enrolling as stated by the groups surveyed are:

1. To learn more about income tax management.
2. To know where strong and weak areas are in the business.
3. To obtain assistance with crop planning, soil management and livestock feeding.
4. To become a better manager of crops, livestock and time.
5. To keep informed and up-to-date.
6. To become more efficient.
7. To determine where the business is going.
8. To obtain practical advice and information.
9. To obtain help in business reorganization.
10. Required to by lending institution.
11. Highly recommended by friends and neighbors.
12. Because of exposure to program through attending vocational school or veterans agriculture class.
13. To obtain a better outlook on farming.
14. To obtain guidance in planning the future.
15. To improve net income.
16. Because of the farm management instructor.
17. For assistance in setting, planning, and reaching goals.
18. To compare a farm business with others in the area.
19. To have another person's views and ideas.
20. To increase sense of security.
21. To continue education.

22. Response to a letter from adult agriculture program .

23. To gain an objective view of the farm business.

A better feel for the reasons individuals enroll may be obtained by looking at some of the actual responses made by them. Selected responses from the farmer-cooperators are as follows:

“To keep a better set of records from which to analyze my operation and to find places where improvement may be of benefit to me.”

“To keep me informed and up-to-date with this rapid changing business and to help me do a better job.”

“So I can have a sounder basis for making decisions and to plan out my operation to become more efficient.”

“Bank insisted on the kind of record this program provides. Needed help in planning and operating the farm. Realized I was going nowhere fast!”

“Because there is much about farming to learn.”

“We hope to become better farmers, make more profit and work our children into farm program.”

“To further my knowledge and make myself available to the many programs and activities open to me.”

“To help start my farming operation, I needed good bookkeeping, business analysis and cash flow.”

“To get a better hold or control over what the business was really doing, what enterprises were more profitable, where the money was coming from and where it was going.”

“Needed an accurate record system and analysis program which in turn added more incentive to my career as a farmer.”

“To find out if I was making money or just swapping dollars.”

“To learn from the instructor who has more education than we have and whose job it is to keep informed and pass that information on.”

“As a young farmer just starting a business I felt a need for enterprise and whole operation assistance and analysis.”

“To increase our income and standard of living.”

“To get help in setting up a good bookkeeping system and to obtain a source of technical information that is proven.”

“In farming today, how can we manage without some professional help. By professional help we don't mean the vet or feed, weed and seed salesmen.”

“The opportunities and knowledge it provided was for me.”

Some of the reasons the farm management instructors gave for farmers enrolling are:

“For aid in getting loans, income tax help and comparing their operations to others.”

“Because they see their neighbors profit by it and they hope to do the same.”

“To utilize the educational institution to their benefit in the management of their business and to have at their disposal a ‘devils advocate’ to use as a decision making sounding board.”

“Mostly a desire to be on top of things from a record keeping and developmental standpoint. The desire to be informed and keep abreast is the major motivator.”

“Because the program appeals to a ‘felt need,’ that of getting a ‘handle’ on the business.”

“To become more efficient in farming, to increase earnings and to help in decision making.”

“To determine just what their farm business is doing for them, to increase earnings and to set down some goals.”

“To provide more accurate reflections of their business to creditors.”

Some of the reasons the program administrators gave for farmers’ enrolling are:

“Records, income tax and more effective farming.”

“Improve farm management skills.”

“To improve farm management in order to operate at a level that produces greater income and net worth while displaying farm life as the good life.”

“Request of bankers to keep better records.”

“To have a better understanding of where they are currently and where they are going or wish to get. They do this by keeping good records and setting goals.”

“For survival and growth.”

“To be made aware of the potentials for economic benefit and better living standards and pride of being a farmer.”

“To get their income tax done.”

Educational programs, as with most things in life, must be evaluated from time to time to determine if they are accomplishing what they were designed to do. Many ideas and opinions exist as to how improvement, if any, might be made. The adult farm management program is no exception. People directly and indirectly involved with the program see things they would like to see changed to more adequately accommodate its operation.

The majority of people surveyed for this study are basically satisfied with the farm management program as it exists. As one program administrator so adeptly put it: “We have an excellent program – How do you improve on excellence?” However, a number of thoughts were presented as to how improvement might be made. Some of the ways suggested for improving the adult farm management program are:

1. Include the use of resource people at classroom meetings.
2. Adopt a universal advertising system.
3. Explain the cause and effect of placement of entries in the account book as it relates to the year-end analysis.
4. Availability of more enterprise classes.
5. Use of more farm tours and demonstrations.
6. More instructor time for each cooperator.
7. Use of more computer programs.
8. Conducting more classes on marketing.
9. More frequent on-farm visits.
10. Conducting more classes than presently.
11. Schedule the on-farm visits.
12. Use of more tact by the instructor and not be so pushy.
13. Develop a system to do the business analysis printout at the farm rather than at regional centers.
14. More technical assistance.
15. More emphasis on credit and borrowing.
16. Regular classroom meetings.
17. More classes directed to the farm wife.

18. Obtaining additional professional instructors.
19. Increased participation by more farmers.
20. Have a more structured program.
21. Improve the account book.
22. Reduce cost of tuition.
23. More group participation and sharing by the farmers enrolled.
24. Use of more test plots.
25. Evaluate programs on the basis of quality, not quantity of people worked with.
26. Stress husband and wife team participation.
27. Legislate sufficient funds for program expansion where needed to serve the local farm area.
28. Allow local districts to operate the way they see best.
29. Add a cash-flow report to the year-end business analysis.
30. Change the way the program is administered.
31. Greater public relations.
32. Keep a chart of the growth of the businesses enrolled.
33. Continue to work on a one-to-one basis with those who really need and want the help for as long as they desire it.
34. More technical training for instructors.
35. Being more responsive to individual needs.

The farmer-cooperators and program administrators think that one method of program improvement is to offer more classes. The management instructors, however, think improvement would include the use of less classroom time. In this situation it is well to consider the needs of the people being served on a local basis and then attempt to meet those needs.

There are many facets of the adult agriculture program that participants like best. Naturally the item liked best by most of the enrollees is the record keeping system and the year-end business analysis. Some of the other responses as to what is liked best about the farm management program from the perspective of the farmer-cooperator are:

“The individual attention I get.”

“The personalized information on a one to one basis.”

“Working with a great guy who has given me a lot of inspiration and who has an objective viewpoint.”

“Getting together with other farmers in the classroom and going over ideas and opinions on different aspects of farming.”

“It gives me a feeling that if I need help in making a decision or help in anything farm related, I have someone I can call on.”

“It gives me a chance to talk with someone who is knowledgeable about farming and who is independent from any particular product or line of equipment.”

“The ‘boot in the rear’ from the instructor to move in the direction best for me.”

“Helps me to keep up with new farm developments.”

“The complete picture I get of my farming operation.”

“The dedication our instructor has to help us to do a better job and be more successful.”

“The development of more confidence in our decisions concerning improvements in our business.”

“Farm visits by the instructor to get his ideas to solve problems I have. He sees how other farmers are doing things and can tell me what works best.”

“I like being able to compare our individual analysis with the averages, high and lows. This gives me a sense of competition so I have an incentive to improve.”

“Teaching me to keep better records and how to analyze them. My banker appreciates that too.”

“It has helped me to get a different attitude toward agriculture and helps me encourage my sons.”

“The availability of unbiased information with no financial ties to your final decision.”

“Helps me to become a better farmer, increasing my income significantly and allowing me to enjoy a better family life.”

“You can sit down and discuss farming practices and be assured that the answers 9 out of 10 times will be right.”

“Personal contact with a professional, yet down to earth consultant! He knows our limitations, life style and interests. When we have questions, he can come up with alternative management solutions which fit us. Then the choice is ours. Tax planning and preparation help are top notch!”

“I have a much better idea where my money comes from and where it is going.”

The farm management instructors had this to say about what they liked best about the program:

“Satisfaction in seeing farm families get established in the business of farming.”

“The direct contact and confidence built between the farmer and the instructor.”

“Watching farm business operations reach their goals which in turn benefits the entire business in the community. The positive effect the program has on the entire economy.”

“Working with motivated, interested, concerned adults who appreciate your efforts.”

“It’s a unique opportunity for the farmer to isolate the different enterprises in his business for analysis. He has a private fieldman and resource person available when and if he needs one.”

“Helping cooperators to help themselves.”

“Provides families with a vehicle to examine their business, to evaluate previous decisions, to project with accuracy and confidence, to study the business as a family.”

Program administrators also have things they like best about the farm management program. Some responses received were:

“It has improved the quality of life in this area.”

“Provides help to farmers at a low cost.”

“Positive results that reflect well on the school district.”

“The individualized approach.”

“It helps people become better managers.”

“Relationship between school and farmers.”

“The family farm operator is a ‘lonely’ individual. He needs to grow through communication by belonging.”

“This program provides for a greater economic impact for the community as well as the individual involved.”

“I like farmers and I like having them involved in the educational process.”

The groups surveyed were asked if they were aware of other management or record keeping systems available in their area to which they could belong. A summary of the responses appears in Table 12.

Table 12
Perception of Availability of Other Management
or Record Keeping Programs in the Community

Presence of Other Programs	- Percent Responding -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 53)	4-6 (n = 48)	> 6 (n = 113)	(n = 35)	(n = 21)
Available	55	73	86	97	90
Not Available	45	27	14	3	10

The majority of the individuals are aware of other systems available to them. It is well to note that this awareness to farmers increases as the individual is enrolled in the adult farm management program for an increasing length of time.

When asked what these other systems were, the greatest response is "P.C.A.'s Agri-Fax." Other systems mentioned as being available are "Farm Bureau's Freddy Computer," "Banks Rec Check System," "Farm Management Service available through the Extension Division of the University," "Doane's Farm Management Service," "Dairy Herd Improvement Association," and "United Managers."

The groups were then asked if after 6 years in the adult farm management program, individuals would consider enrolling in a private program of one type or another rather than continue in the current program. Their responses, summarized, appear in Table 13.

Table 13
Likelihood of Participating in a Private Program After
Six Years in the Adult Farm Management Program

Likelihood of Private Participation	- Percent Responding -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 42)	4-6 (n = 49)	> 6 (n = 112)	(n = 31)	(n = 18)
Positive	21	10	10	10	17
Negative	79	90	90	90	83

By far the greatest percentage of the individuals surveyed said they definitely would not consider enrolling in a private program after 6 years in the adult farm management program. The most favorable positive response came from farmer-cooperators who have been enrolled in the adult farm management program for 1 - 3 years. But even this was only 21% of the sample. Only 10% of the farmer-cooperators enrolled for 4 years and more could envision themselves participating in a private program.

Individuals who said they would consider enrolling in a private program gave numerous reasons why. Some of the reasons given were:

"It may be more beneficial to me."

“It is more specialized and advanced.”

“Just to see if it’s better.”

“No other place to go if current program is discontinued.”

“It takes too long to get the year-end analysis in this program.”

“Possibly more current information.”

“Current program’s future is uncertain.”

“Easier record keeping.”

“For the cash flow report.”

Some of the reasons given for not enrolling in a private program after 6 years in adult farm management are:

“Very satisfied with what I have.”

“Too expensive to go private.”

“Why switch when this program works?”

“Loss of continuity and personal contacts.”

“Complete approach here.”

“Like security of this program.”

“Program currently is serving my needs and have no reason to change.”

“Why quit a good thing?”

“Other programs are not as broad scoped as this one.”

“Prefer the individuality of the current program.”

“No other program offers the enterprise analysis as this one does.”

“We receive monthly on-farm visits with this program.”

“Good program at a reasonable cost.”

“No other program is as complete as this one.”

“Excellent exchange of ideas with this program.”

“Why change from a management program to a tax program.”

“Other programs are not as personal.”

“The farm management program becomes *most* beneficial after 5 - 6 years because the early years provide for further expansion and implementation while the following years provide for evaluating and monitoring those resources (making it all work!).”

One farmer-cooperator went into considerable detail explaining why he was not interested in enrolling in a private program after 6 years in the adult farm management program. The points he makes fairly well sums up the feeling many others were trying to express. He said:

“I have used Rec Check and investigated the Agri-Fax and some other record keeping systems. None give the complete information and help the adult farm management program does. A record keeping and management system as complete as the adult farm management program would cost \$600 to \$1,000 per year from a private supplier. Not enough farms would sign up locally to make a good program and those farmers who would be helped most would not join.

"I think this program is one of the best uses of our tax money there is. I pay in excess of \$20,000 in real estate and income taxes per year and get a great deal of satisfaction in knowing that some of this is going to support our program.

"I have 5 children, ages 12 - 19, who are all interested in agriculture mainly because good records, analysis, and interpretation of those records made farming a pleasant and profitable operation."

As noted earlier, farmer-cooperators, management instructors, and program administrators, feel that increased earnings is one of the greater contributions the family receives from participating in the adult farm management program. Each of these groups were asked to give their perception of the average increase in annual income that a program enrollee has received or could expect to receive due to his participation. Many said they were unable to place a value on the program in financial terms. Most knew income was increased but didn't know how much. A summary of the results for those who did respond is found in Table 14.

Table 14
Perception of Average Increase in Annual Income
As A Result of Program Participation

Degree of Increase in Average Annual Income	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 22)	4-6 (n = 33)	> 6 (n = 53)		
Least	\$ 0	\$ 0	\$ 0	\$ 500	\$ 1,000
Most	10,000	10,000	15,000	10,000	10,000
Average	3,473	3,073	4,962	4,769	5,400

Not all of the farmer-cooperators perceived program participation to be financially advantageous. Other perceived it to be extremely beneficial. On the average, an increase in annual income of \$3,000 to \$5,000 was perceived to be attributable to program participation.

The number of farm families an adult farm management instructor has enrolled in the program is often the basis for evaluating the effectiveness of that instructor by administrators, other instructors, and farmers. These groups of individuals were asked to give their idea as to how many farm families an adult farm management instructor could or should be working with. The responses varied from 15 families to an unlimited number. As Table 15 shows, the groups of individuals surveyed generally feel that an effective job can be done by one instructor with 40 to 43 families enrolled.

Table 15
Number of Farm Families One Adult Farm Management Instructor
Can Effectively Work With

Number of Farm Families Per Instructor	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 47)	4-6 (n = 46)	> 6 (n = 106)		
Least	15	20	15	30	25
Most	100	75	100	65	80
Average	38	39	41	43	42

Local farm management programs are currently working with an average of 59 families who are enrolled. This is the total of the average responses from 36 instructors. The average number of families enrolled by years of enrollment is given in Table 16.

Table 16
Average Number of Families Enrolled
In A Local Farm Management Program

Years Enrolled	Number Enrolled
1	10.5
2	11.0
3	10.0
4-6	12.0
More Than 6	<u>15.5</u>
Average Number Per Program	59.0

Not all farmers enrolled in farm management programs have an annual farm business analysis done for them. Those enrolled for their first year are just learning about the “how” and “why” of record keeping and often times do not have a complete or an accurate set of records for analyzing. As an individual is enrolled for a greater number of years, the chances of him analyzing his farm business becomes greater. The percentage of the program enrollees having a farm business analysis by years of enrollment as reported by the instructors appears in Table 17. After 3 years of program participation, an average of 90% of the enrollees have a business analysis.

Table 17
Percent of Program Enrollees Having
A Farm Business Analysis

Year of Enrollment	Percent Analyzing
1	68
2	83
3	86
More Than 3	90

By far the majority of each of the groups surveyed feel that farm families should be allowed to participate in the adult farm management program for more than 6 years. Only the program administrators had a very high percentage thinking that program participation should be limited to 6 years. (See Table 18.)

Table 18
Feasibility of Farm Families Participating in the
Adult Farm Management Program for More Than Six Years

Status of Participant	- Percent Responding -				
	Farmers by			Farm Mgmt.	Program
	Years of Enrollment				
	1-3	4-6	> 6		
	(n = 52)	(n = 53)	(n = 118)	(n = 35)	(n = 27)
Allowed to continue	98	98	98	100	78
Should be discontinued	2	2	2	0	22

Recently, the rules and regulations governing the conduct of the adult farm management program in Minnesota have suggested that instructors of these programs be working with at least 42 farmer-cooperators who have been enrolled for 6 years or less. The groups sampled were asked if this was a reasonable expectation. As Table 19 shows, none of the farm management instructors feel this is a reasonable requirement to expect. However, a fair percentage of the farmer-cooperators and program administrators see this to be quite reasonable, even though the majority of all of the groups see it to be unreasonable.

Table 19
Reasonableness for Expecting Adult Farm Management Instructors
To Be Working with At Least 42 Farmer-Cooperators
With Less Than 6 Years Experience in the Program

Degree of Expectation	- Percent Responding -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 51)	4-6 (n = 47)	> 6 (n = 109)	(n = 34)	(n = 26)
Reasonable	49	32	36	0	46
Unreasonable	51	68	64	100	54

Some of the reasons given for considering the expectation unreasonable of each farm management instructor to work with a minimum of 42 enrollees with 6 years or less experience in the program are:

“Because the instructor can’t get around to all the farmers to see each of them once a month.”

“If instructor gets too spread out he won’t be effective.”

“Work overload with no time for instructor to attend information meetings, making farm visits, helping young farmers, etc.”

“Farm families with less than 6 years experience need more individual attention.”

“Too many creating a deterioration of quality. Disenchantment arises and families feel abandoned considering tuition costs as they are today.”

“Farms are getting larger and there are not many young farmers to get into the program.”

“Instructor spreads himself too thin. Benefits received are less and the instructor can’t spend the time he should for maximum benefit.”

“Would force those with more than 6 years experience out of the program and would eventually end the program.”

“This puts too much pressure on the instructor to keep on recruiting new people causing him to get people who might not have a true interest in the program.”

“People really struggle with those account books for the first few years. If the instructor had 42 ‘rookie farmers’ he could be frustrated beyond words.”

“Farmers need the program as long as they farm and the instructor just can’t handle that many people.”

“The instructor would be spreading himself too thin to give farmers the quality and quantity of help they have come to expect.”

“No matter how good a program you have, you are never going to interest everyone in a district to join. To have a complete turnover every 6 years is a good way to eliminate programs.”

“Six years is not enough for many people. Educational leadership has emphasized consideration of individual differences for years, but a 6-year cut-off doesn’t provide for this.”

“This would be a full time load. There would be no room for those with more than 6 years experience. These families serve as additional instructors. They provide the leads and encouragement for new families. They provide the resource materials for an effective instructor.”

One reason given for suggesting that adult farm management instructors have at least 42 farmers enrolled with 6 years or less experience is to provide ample opportunity for the people in the community to enroll in the program if they so desired. It would discourage working with just a core of people for an unlimited period of time while others desiring to enroll couldn't because of a “full program.”

The groups included in this study were asked if they were aware of anyone who has not be able to enroll in the farm management program if they so desired. Almost 90% of the entire sample said they were not aware of anyone getting turned away from participation if they so desired. As noted in Table 20, only 4% of the program administrators were aware of any denials to program enrollment.

Table 20
Capability of Local Farm Management Program to
Enroll All Who Desire to Participate

Additional Enrollment Possibilities	- Percent Responding -				
	Farmers by Years of Enrollment			Farm Mgmt. Instructors	Program Admin.
	1-3 (n = 46)	4-6 (n = 46)	> 6 (n = 95)	(n = 35)	(n = 24)
Prospective Participants Accepted	94	83	93	86	96
Prospective Participants Turned Down	6	17	7	14	4

The general consensus of the people responding to the survey was that the farm management program is available to anyone who desires to use it. The problem is not program availability but rather being able to reach all those who can potentially benefit from participating.

The management instructors and the program administrators were asked if families enrolled in the farm management program for more than 6 years should be expected to pay the full attributable costs of the program. The responses indicate that 26% of the instructors and 62% of the administrators think this is a fair expectation.

A couple of the comments made by management instructors are as follows:

“I feel that learning can continue for as many years as one lives. How many college professors, legislators, etc. paid the total attributable cost of their education after the first 6 years?”

“With rapid changes in technology and in financing the farm business, education cannot stop at the end of 6 years. The dollars invested through taxes will still return more to the community than the pittance collected as attributable costs.”

This study finally took a look at the perceptions of farmer-cooperators, instructors, and program administrators as to the priorities management instructors should place on the activities they find themselves involved with. Adult farm management instructors are involved in a multitude of activities. If the needs of the people enrolled in programs are to be met, these activities must be assigned the correct priority. The priorities these different groups of individuals placed on various instructor activities appear in Table 21.

The top two priorities for management instructors to include in their activities is teaching adult farm management and conducting on-farm instruction. The farmers feel the bottom priority should be the maintenance of the school facilities. The program administrators feel actively farming part-time is the lowest priority. The management instructors feel consulting with taxpayers not enrolled in the program ranks at the bottom, while the other groups placed this item much higher on the scale.

Table 21
Activities of the Farm Management Instructor
Ranked in the Order of Priority

Instructor Activity	Farmers by Years of Enrollment			Farm Mgmt. Instructors (n = 32)	Program Admin. (n = 25)
	1-3 (n = 57)	4-6 (n = 52)	> 6 (n = 114)		
Teaching Adult Farm Business Management	1	1	1	2	1
Conducting On-Farm Instruction	2	2	2	1	2
Performing Service Functions for Farmers	2	2	2	4	4
Teaching Adult Enterprise Courses	3	3	3	2	2
Teaching a Young Farmer Course	3	3	3	5	4
Attending Farm Management Instructors Meetings	3	3	3	3	4
Attending Classes and Informational Sessions	4	4	4	4	5
Keeping Current Through Reading Books, etc.	4	4	4	4	5
Maintaining an Up-to-Date Resource File	4	4	4	5	3
Obtaining and Preparing Teaching Materials	4	4	5	3	3
Meeting with Local Advisory Committees	5	5	5	4	4
Lesson Planning	5	5	5	3	3
Attending Professional Meetings	5	5	5	5	5
Teaching Adult Agriculture Mechanics Classes	5	5	4	5	5
Confer with Administrators	5	6	6	5	5
Consultation with Other Taxpayers Not Enrolled	6	5	5	9	6
Participation in Community Civic Activities	6	6	7	6	6
Assisting with FFA Activities	6	6	6	6	6
Performing Administrative Responsibilities	6	6	6	6	6
Non-Teaching School Related Activities Assigned	7	7	7	7	7
Serving as an Officer for an Organization	7	7	7	6	7
Actively Farming Part-Time	7	8	8	8	9
Non-Teaching School Related Activities Not Assigned	8	8	8	7	8
Teaching High School Classes	8	7	6	7	8
Maintaining School Facilities	9	9	9	8	7

The performance of service functions for farmers is given a high priority as far as the farmer-cooperators are concerned. Management instructors and program administrators place lesson planning, and the obtaining and preparation of teaching materials ahead of this.

The farmer-cooperators fairly well agree upon the priorities the adult farm management instructor should have if he and the program are to be beneficial to them. It is well to note that their expectations are not consistent with the priorities of the management instructors and the program administrators have established for the best use of time.

Chapter V

Summary and Conclusions

The adult farm management program, as conducted in Minnesota, has proven to be widely accepted and extremely beneficial to those participating in the program. The longer a farmer-cooperator is enrolled in the program, the more benefit he can envision through continued participation. Farmer-cooperators, management instructors, and program administrators believe that the adult farm management program can be beneficial to its participants for more than 10 years. The complex farming operations of today need and want the kind of assistance this program offers.

About one-third of the program administrators that were sampled believe that participation in the adult farm management program is beneficial for 6 years or less. This appears to be a response generated by recently adopted rules and regulations rather than an assessment of the needs of the farmer-cooperators. However, even more than one-half of the program administrators agree that the program can indeed be beneficial to a participant for more than 10 years.

The communities in which farm management programs are conducted also benefit from their operation. Farmers enrolled in the program experience an increase in earnings. The participants in this study perceived that increase to be between \$3,000 and \$5,400 per year. This creates a corresponding increase in the business activity of the community and expands the tax base of the community.

Farmer-cooperators agree that the most important benefit their family receives from program participation is improved management skills. Other important contributions the participating family receives include a better knowledge of their own personal and business capabilities, and increased earnings. A feeling of greater security in the business decisions made is also recognized as an important product of participation. They do not see the program as being responsible for a smaller workload or for generating more social activity.

The individual on-farm visit has always been considered the most essential part of the farm management program. It not only is the most essential part, but also the most beneficial form of instruction. Other beneficial forms of instruction include classroom meetings and farm tours in small groups. Newspaper articles and monthly farm management newsletters are nice conveniences but do not prove to be very beneficial.

Between 6 and 12 on-farm visits should be made per program participant per year. The number of visits made depends upon the number of years the farmer has been enrolled in the program and his need for such instruction. Generally speaking, more on-farm visits should be conducted during the first three years of enrollment than for the fourth through the sixth year of enrollment. The smallest number of on-farm visits should be provided to those enrolled over six years.

A general recommendation as to the average number of on-farm visits to conduct per participant per year of enrollment is as follows:

Year of Enrollment	No. of On-Farm Visits
1	12
2	10
3	8
4-6	6
7 and more	4

The individual on-farm visits should be scheduled and should be planned with a particular objective in mind. Many of the farmer-cooperators would like more on-farm visits than what they are currently receiving. Others are receiving more visits than what they need or desire. The instructor should be aware of such individual differences and attempt to satisfy individual needs. As the total number enrolled per program increases, the effectiveness of the instructor to satisfy these needs is lessened.

The type of classroom meeting liked best by farmer-cooperators, instructors and administrators is the discussion lecture with the use of visuals. The print on the visuals should be large enough for the entire class to see. If visuals are not used, the discussion lecture is one of the least liked, and thus one of the least beneficial, classroom meetings.

Instructors have a tendency to over-rate the acceptance of the panel discussion as a favorable classroom meeting type. Farmer-cooperators don't find this method to be too beneficial or of interest to them. Administrators over-rate the acceptance of small groups working together. Farmer-cooperators like this method better than the panel discussion but still don't rank it very high. The use of films and slides in the classroom setting is more greatly accepted by the program participants than what instructors and administrators give it credit for.

If a series of classes is offered in an area of particular interest, the number offered should be consistent with the number that participants are likely to attend. That usually is no more than several class meetings. More than four class sessions on a topic should be planned only if specific interest has been expressed or if necessitated by the complexity and length of subject material.

The adult farm management program is expected to assist the farmer-cooperator in keeping complete and accurate farm records; in interpreting and analyzing farm records; and in planning, implementing and evaluating changes in the farm business for more efficient and profitable use of resources. Farmer-cooperators, instructors and administrators agree that these forms of assistance are being currently provided. Other benefits and assistance in operating the farm business being offered include assistance with crop planning and soil management, farm business credit planning, income tax management and planning, assistance with livestock feeding and ration improvement, and assistance in establishing family and business goals.

Farm management instructors envision a great deal of their responsibilities to include assistance in setting goals and planning. Farmer-cooperators also recognize this to be important, but are not receiving the assistance to the degree claimed to be provided. Almost all of the instructors say that such assistance is provided but only 75% of the farmer-cooperators are aware of such a benefit.

Almost 60% of the farmer-cooperators say that income tax preparation and filing is a benefit the program offers. Only about 40% of the instructors say this is provided. This was the only form of assistance or benefit that a lower percentage of the instructors recognized as being provided than farmer-cooperators. The reason could be hesitancy on the part of instructors to admit to performance of a service through an educational program.

As the farmer-cooperator is enrolled in the program for an increasing number of years he becomes increasingly aware of the numerous benefits and assistance available to him. Possibly a greater awareness at earlier stages of enrollment could be had if the benefits and available assistance would be more widely advertised among the program participants. This would strengthen the program and possibly result in a greater level of participation and a higher retention of those who do enroll.

The keeping of an accurate set of business records, using the records as the basis for decision making, and income tax planning are the management practices most farmer-cooperators perceive to be the result of their participation in the adult farm management program. The management instructors and program administrators recognize this as well.

Numerous other practices or attitudes perceived to be the result of program participation include a greater concern for livestock health and the quality and quantity of feed fed to them, the use of improved livestock housing facilities, the use of more effective herbicides and insecticides, soil testing before fertilizing, keeping the credit institution properly informed, attending tours and meetings, being more content with the farm business operation, having a greater income for family living, and an improved attitude toward risk and risk taking.

Not near as many program administrators are aware of the impact program participation can and does have in the adoption of farm practices, behavior or attitudes that there should be. A greater effort must be made by the instructors and the program participants in conveying to administrators the idea of the important role the program plays in the life of the participant and his business. For the adult farm management program to continue and to be effective, continual communication with the people involved with program administration is essential. The program does have some far reaching effects and can create some tremendous changes in businesses and individuals.

The most common reason for people to enroll in the adult farm management program is for the complete record system provided and the farm business analysis. Other reasons for enrolling include to become a better farm manager, to obtain practical advice and information, to improve net worth, to satisfy the lending institution, to prosper as well as the neighbor who is enrolled, and to gain an objective view of the farm business. The actions and competencies of the management instructor also affects the decision of people to enroll.

The majority of the people enrolled in adult farm management programs are satisfied with the conduct of those programs. Most of the possible improvements suggested that might be made included more frequent on-farm visits, the scheduling of visits that are made, conducting more classes, more technical assistance, and being more sensitive to individual needs. These are all areas the management instructor has control over and is responsible for. It is of utmost importance that the instructor determine the needs of the people enrolled in the management program, and then attempt to meet those needs.

There are many facets of the adult farm management program that participants like best. The item best liked by most of the enrollees is the record keeping system and the year-end business analysis. Other items best liked by the participants include the individual attention received; the mingling with other farmers to gain new ideas and opinions; the use and advice of a knowledgeable, unbiased individual; the encouragement from the instructor; the instilling of an improved attitude and outlook; and the tax planning and advice rendered.

Most of the management instructors like the facet of being able to see the fruits of education materialize. They obtain great satisfaction in seeing farm families become established in business and progress. They also enjoy the opportunity of being able to sit down with a farm family and discuss problems on a one-to-one basis.

The program administrators like the adult farm management program for the positive results it produces and the corresponding good reflection on the school district. They like the good public relations generated by such a community involved program and the individual help they know is being provided. They also see the program as improving the quality of life in the area.

Some legitimate concern is being expressed over the effect of revised rules and regulations governing the operation of the adult farm management program. These rules suggest that a farm management instructor be working with a minimum of 42 farmer-cooperators with 6 years or less experience in the program. Those with more than 6 years experience are expected to pay the full attributable cost of their education. This leaves the impression that many programs will be forced to work primarily with individuals having 6 years or less experience at participation leaving those with more than 6 years experience to go on their own or to join a private record keeping or management program.

Most of the farmer-cooperators are aware of the availability of other management or record keeping programs in the community. This awareness increases as the number of years enrolled in adult farm management increases. This undoubtedly is due to the increased awareness of the importance of record keeping and the possible exposure to these other programs through class discussions.

Although the farmer-cooperators are aware of these other programs, they are not inclined to think they would participate in any of them after being in the adult farm management program for 6 years. They cite current satisfaction, reasonableness of cost, personal approach, completeness, and exchange of ideas as reasons for not leaving the adult farm management program. Generally, the only ones who said they might leave after 6 years are those who think they will be forced to.

Farmers may be forced out of participating in the adult farm management program after 6 years of enrollment under current rules and regulations. An adult farm management instructor can effectively work with only 40 to 45 individual farm units due to time limitations. This fact is recognized by farmer-cooperators, instructors, and program administrators. That would mean the minimum 42 enrolled with six years or less experience would constitute a full load if program quality is not to suffer.

The average adult farm management program in Minnesota is now working with 59 farm families per year of which 43 have been enrolled for 6 years or less. Depending upon the number of years enrolled, about 85% of the program enrollees have a farm business analysis conducted each year. The likelihood of having a business analysis increases as the length of time enrolled increases.

None of the farm management instructors consider the "42-6 rule" to be a reasonable expectation. Almost one-half of the farmer-cooperators enrolled for 1 to 3 years and the program administrators do not consider this to be a reasonable expectation. Two-thirds of the farmer-cooperators enrolled for 4 years or more do not consider this to be a reasonable expectation. Reasons given for making it unreasonable include the fact that people with more than 6 years experience in the program would be forced out or the instructor would have too many people to work with resulting in a reduction of effectiveness.

All of the management instructors, almost all of the farmer-cooperators and about 75% of the program administrators feel farm families with 6 years or more of enrollment should be allowed to continue to participate in the adult farm management program if they so desire. This adds to the work load and duties of the instructor.

Some individuals are already being denied participation in the adult farm management program because of a full load being carried by the instructor. About 10% of the groups surveyed are aware of individuals who desire to enroll but cannot. The only solution to this problem is additional instructors for the programs needing relief.

Adult farm management instructors are involved in a multitude of activities and as such are very busy individuals. The successful operation of the local farm management program is very dependent upon the correct priorities being placed upon the activities that affect it. The top two priorities the successful instructor should have are teaching adult farm management and conducting on-farm instruction.

Farmer-cooperators feel the performance of service functions for them by the instructor should be a top priority as well. This would include the preparation of income tax returns, soil testing, ration balancing, etc.

This study has concluded that the adult farm management program in Minnesota is indeed worthy of serving as a model for the nation. The benefits it generates, the ability it possesses to meet individual needs, and its wide acceptance make the program something to be proud of! It truly is helping rural America prosper.

The problems the adult farm management program have are only challenges that any viable, progressive educational program has. Hopefully, the results of this study can clear away some of the confusion and misunderstanding that exists. Many things being done by the adult farm management program are very satisfactory. A few things in some localities should be done differently. Communications with program administrators and policy-makers is imperative.

Only through study and evaluation can we ever expect to maintain our strong points and correct our weaknesses. The findings of this study should not be regarded as just something that is nice to have and be filed away. They should be used by all farm management instructors to improve the adult farm management program in every way that is possible.

List of Tables

Table	Page
1 Number of Years Participants Can Benefit from the Adult Farm Management Program	21
2 Contributions to the Family from Participation in the Adult Farm Management Program Ranked in Order of Importance	22
3 Type of Instruction Benefited Most From	23
4 Benefits of Program Participation Currently Provided	24
5 Adult Farm Management Program Objectives Ranked in Order of Priority	26
6 Type of Classroom Meeting Desired Ranked in Order of Preference	26
7 Frequency of On-Farm Visits Desired	27
8 Average Number of On-Farm Visits Conducted Per Year Per Program Participant	28
9 Number of Classes Preferred for the Exploration of a Topic of Interest	28
10 Average Number of Classes Conducted Per Year Per Program	29
11 Practices, Behavior and Attitudes Perceived to be the Result of Adult Farm Management Program Participation	29
12 Perception of Availability of Other Management or Record Keeping Programs in the Community	36
13 Likelihood of Participating in a Private Program After Six Years in the Adult Farm Management Program	36
14 Perception of Average Increase in Annual Income as a Result of Program Participation	38
15 Number of Farm Families One Adult Farm Management Instructor Can Effectively Work With	38
16 Average Number of Families Enrolled in a Local Farm Management Program	39
17 Percent of Program Enrollees Having a Farm Business Analysis	39
18 Feasibility of Farm Families Participating in the Adult Farm Management Program For More Than Six Years	39
19 Reasonableness for Expecting Adult Farm Management Instructors to be Working With At Least 42 Farmer-Cooperators With Less Than 6 Years Experience in the Program	40
20 Capability of Local Farm Management Program to Enroll All Who Desire to Participate	41
21 Activities of the Farm Management Instructor Ranked in the Order of Priority	42

List of Figures

Figure	Page
1. Relationship Between Indexed Mean Labor Earnings and Adult Farm Business Management Education	10

Selected Bibliography

1. Atherton, J.C. "Include Adult Education in the Annual Program," *Agricultural Education Magazine*, January 1975, p. 159.
2. Bender, Ralph E.; McCormick, Robert W.; Woodin, Ralph J.; Cunningham, Clarence J.; and Wolf, Willard H. *Adult Education in Agriculture*. Columbus, Ohio: Charles E. Merrill Publishing Co., 1972.
3. Bryson, Lyman. *Adult Education*. New York: American Book Company, 1936.
4. Bullard, A.G. "In Our Adult Farmer Program You Start With a Farm Management Core," *Agriculture Education Magazine*, October 1963, p. 81.
5. Bundy, Clarence E. "Reaching the Adult with Vocational Education." In *The Individual and His Education*, pp. 329-341. Edited by Alfred H. Krebs. Washington, D.C.: The American Vocational Association, 1972.
6. _____. "Technical Education for Farmers," *Agricultural Education Magazine*, February 1968, p. 181.
7. Callanan, Paul, and Jackson, Dennis. "Accountability in Adult Farmer Education," *Agricultural Education Magazine*, May 1978, p. 256.
8. Childers, B.E. "Vocational Program Evaluation." In *The Individual and His Education*, pp. 258-269. Edited by Alfred H. Krebs. Washington, D.C.: The American Vocational Association, 1972.
9. Cook, Glen C. *Handbook on Teaching Vocational Agriculture*. Danville, Ill.: Interstate Printers and Publishers, 1947.
10. Cvancara, Joseph. "Do Increases in Farm Output Exceed the Communities Input Costs of Farm Management Instruction?." *The Visitor*, April 1965, pp. 1-4.
11. Duis, Harold F. "A New Approach to Teaching Farm Management is Necessary." *Agricultural Education Magazine*, September 1963, p. 51.
12. Faust, P. James. "Adult Program - Zero to 160 in Five Years." *Agricultural Education Magazine*, August 1975, p. 41.
13. Francis, Eugene V. "A Guide to On-Farm Instruction in Farm Management and Farm Business Analysis." Master's dissertation, University of Minnesota, 1967.
14. _____. "Farm Business Management Program: What Does It Mean?." *Agricultural Education Magazine*, August 1975, pp. 32-33.
15. Gadda, H.W. "Improving the On-Farm Instruction of Young and Adult Farmers." *Agricultural Education Magazine*, May 1961, p. 261.
16. Guelker, William E. "A Proposed Adult Farmer Program for the Staples, Minnesota Community." Master's dissertation, University of Minnesota, 1959.
17. Hamlin, Herbert M. *Agriculture Education in Community Schools*. Danville, Ill.: Interstate Printers and Publishers, 1949.

18. Hauser, H.J. "Farm Management for Farmers in Minnesota." Master's dissertation, University of Minnesota, 1957.
19. Henning, Clarence, and Peterson, Milo J. *Farm Business Management, An Instructor's Guide*. Washington, D.C.: Dept. of Health, Education and Welfare, 1967.
20. Hensel, James W., The Center for Research and Leadership Development in Voc. & Tech. Ed., *Evaluation and Program Planning in Agricultural Education*. Columbus: Ohio State University, 1966.
21. Hodgkins, Delbert L. "Techniques and Methods of Instruction in Farm Management." Master's dissertation, University of Minnesota, 1957.
22. Hohenhaus, William E. "An Evaluation of the Vocational Agriculture Farm Management Program of Southern Minnesota." Master's dissertation, University of Minnesota, 1964.
23. Hunsicker, H.N., The Center for Research and Leadership Development in Voc. & Tech. Ed., *Evaluation and Program Planning in Agricultural Education*. Columbus: Ohio State University, 1966.
24. Johnson, Earl. "The Need and Importance of Adult Education." *The Visitor*, April 1960, pp. 1-4.
25. Knowles, Malcolm S. "The Future of Adult Education." *School and Society*, Summer, 1962.
26. _____. *The Modern Practice of Adult Education*. New York: Associated Press, 1977.
27. Leske, Gary W. "An Evaluation of Instructional Innovation for Adult Agricultural Education in Farm-Business Management." Doctor's dissertation, University of Minnesota, 1970.
28. Leske, Gary W.; Salem, M. Nagi; and Peterson, Roland L. *An Analysis of the Work Load of Adult*
28. Leske, Gary W.; Salem, M. Nagi; and Peterson, Roland L. *An Analysis of the Work Load of Adult Farm Management Instructors in Minnesota*. Research and Development Series No. 6, University of Minnesota, 1978.
29. Morgan, Barton; Holmes, Glenn E.; and Bundy, Clarence E. *Methods in Adult Education*, 2nd ed. Danville, Ill.: Interstate Printers and Publishers, 1963.
30. Overstreet, H.A., and Overstreet, B.W. *Leaders for Adult Education*. New York: George Grady Press, 1941.
31. Painter, Charles. "Area Coordinator's Newsletter." Austin, Minn.: Austin Area Vocational-Technical Institute. April 1970.
32. Palan, Ralph L. "A Program of Instruction for Adult Farmers in Agriculture." Master's dissertation. University of Minnesota, 1968.
33. Persons, Edgar A.; Palmer, Rodger E.; and Palan, Ralph L. *Farm and Ranch Management Education A Course of Study for Adults, Volume I*. White Bear Lake, Minnesota: Minnesota Instructional Materials Center, 1977.
34. Persons, Edgar A.; Swanson, Gordon I.; Kittelson, Howard M.; and Leske, Gary W. *Investments in Education for Farmers*. Research Report Project No. 427-65. St. Paul: University of Minnesota, 1968.
35. Persons, Edgar A. University of Minnesota, St. Paul, Minnesota. Ag. Ed. 5-052, Summer 1978.

36. Peterson, M.J., and Cochran, G.R. *Memorandum Regarding Cooperative Vo-Ag Farm Management Project*. Code IV-B-164. St. Paul: University of Minnesota, 1952.
37. Probasco, Peter M. "Criteria Used by Selected Minnesota Vo-Ag Teachers in the Adult Farmer Program." Master's dissertation. University of Minnesota, 1961.
38. Routhe, Harlund. "The Farm Management Approach to Adult Education in Agriculture in Minnesota." Paper for Ag. Ed. 104. University of Minnesota, 1951.
39. Schoenfeld, Clay. "On Defining Adult Education." *School and Society*, March 1955, p. 70.
40. Sisler, C.E. "The Need for a Two-Man Vocational Agriculture Department in the Greenbush School." Master's dissertation. University of Minnesota, 1962.
41. Stotesbery, Marvin B. "The Instructional Areas in a Program of Education for Young Farmers in the Fari-bault Area." Master's dissertation. University of Minnesota, 1965.
42. Strohm, John S. "What's a Farm Leader Worth?." *High Dollar Farming*, September 1963.
43. Sutherland, Sid S., The Center for Research and Leadership Development in Voc. & Tech. Ed., *Evaluation and Program Planning in Agricultural Education*. Columbus: Ohio State University, 1966.
44. Todd, John D. "The Role of th Vocational Agriclture Teacher in Adult Education." *Agricultural Education Magazine*, August 1975, p. 34.
45. *Webster's New World Dictionary*, 2nd ed. 1968. s.v. "analyze."

