

The Evolution of the Minnesota Farm Business Management Education Program From 1952 to 2002

In Partial Fulfillment of the Requirement for the Masters of Education Degree

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Division of Agricultural, Food and Environmental Education College of Education and Human Development College of Agriculture, Food and Environmental Science University of Minnesota June 2002

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Abstract

This paper provides an account of the evolution of management education for farmers as delivered through the Minnesota State Colleges and Universities (MnSCU) Farm Business Management (FBM) education program. It will piece together and highlight the major threads of change in four time-sequential periods, which are marked by certain distinct events in the industry of agriculture and the development of public policy for agriculture industry and vocational education.

Public policy in Minnesota and the U.S. for the education of farmers has generally been driven by the ever-changing industry of agriculture in concert with the vocational educational philosophy of our society. There is no doubt that supportive public policy did and will continue to have an impact on the continued success of the program. This critical analysis paper focuses on the forces, events, consequences, and implications with each of these four periods as they relate to the evolution of the Minnesota FBM program.

There is a need for the FBM program in Minnesota, as it has become the preferred provider of management education for farmers. This program has remained purposeful and viable because FBM educators have constantly examined the industry and assessed the needs of their clients. As the new century unfolds, students will be affected by the choices and activities of policy makers, administrators, researchers, and FBM instructors. If the Minnesota FBM Education program continues to exercise visionary practices, it will remain a vibrant and essential institution to serve the industry of agriculture for years to come.

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Chapter 1

Introduction

Farm business management education programs have been a vital component of Agricultural Education in Minnesota since its origin in 1953. Minnesota Farm Business Management (FBM) education programs enroll over 4,000 farmers in the Minnesota State Colleges and Universities Technical and Community College system. Farmers are students in a course of study designed to provide management education to farmers that focuses on developing a better understanding of the financial position of the farm business as they strive to meet their personal, family, and business goals.

Each of the FBM instructors works with approximately 40 farmers each year and focuses individualized and group instruction on use of farm records that will assist farmers in the management decision making process. In addition farmers are expected to be able to: (a) establish personal, family, and business goals; (b) compile accurate farm records; (c) analyze and interpret records; (d) effectively demonstrate the functions of management; (e) understand the short and long term effects of management decisions; (f) successfully apply economic principles; (g) use data to optimize the organization and efficiency of the business; (h) understand the foundations of human resource management; and (i) understand how the farm business relies on other organizations and systems (Minnesota Farm Management Task Force, 1999). Large and small group instruction is generally supplemented through the use of e-mail, CD-ROM's, videotapes, and the World Wide Web.

While farm management education has seen many changes through the years, little has changed in respect to the core principles of the program. The visionaries who

established the initial course of study focused on instruction in the management decision- making process centering on the use of the Minnesota Farm Account Book. Today the majority of farmers input farm record data into computerized accounting packages. The FBM instructor assists the farmer in producing comprehensive enterprise and whole farm business analyses from the data on an intermittent and annualized basis. The instructors further assist the farmers in interpreting and using the data from the analyses for making a variety of financial and production decisions (Joerger & Murray 1999).

Farm Business Management education has remained an effective component of Agricultural Education because it serves a vital purpose for the farmers that enroll. Evidence from students, instructors, and creditors indicates that farmers experience an increase of nearly \$5,000 in annual net farm income as a benefit of being enrolled in the FBM program (Joerger, Ipe, & Persons 2000). In addition over 60% of the students intend to participate in the program seven or more additional years if the opportunity continues to exist (Joerger, 2000). Farmers have demonstrated the need for this type of lifelong learning in Minnesota for nearly 50 years. There is no other program in existence that fills the educational needs of these highly motivated self directed learners. In order to maintain this effective system of instruction, instructors, FBM administrators, and policy-makers must constantly assess the needs and update the programs to meet the needs of the farmer as they converge into the 21st Century (Joerger & Murray, 1999).

What is the future of the FBM program in Minnesota? What will be the elements of the curriculum in the year 2010? How can the Minnesota State Colleges

and Universities (MnSCU) FBM program be modified to meet the changing needs of its students? While the answer to these and other questions will form the framework for the FBM program in the new century, it may be useful to revisit and reflect on the history and development of this institution so we do not make uninformed decision about its future. As we move through the process of answering these questions, it is imperative to remember what Usher (1979) tells us, "The only thing that is certain is that adult educators are finding it increasingly problematic simply to take refuge in the certainties of the past" (p 1).

This paper will provide an account of the evolution of management education for farmers as delivered through the Minnesota Farm Business Management Education Program. It will piece together and highlight the major threads of change in four periods, which are marked by certain distinct events in the industry of agriculture and the development of public policy for agriculture industry and vocational education:

- 1) Education of farmers in Minnesota and the U.S. before 1917
- 2) Vocational education of farmers in Minnesota and the U.S. from 1917-1952
- 3) Farm Business Management program in Minnesota from 1954-1983
- 4) Farm Business Management program in Minnesota after 1983-2002

Public policy in Minnesota and the U.S. for the education of farmers has generally been driven by the ever-changing industry of agriculture in concert with the vocational educational philosophy of our society. This critical analysis paper focuses on the forces, events, and consequences within each of these four periods as they relate to the evolution of the FBM program.

Chapter 2

Education of Farmers in Minnesota and the United States before 1917

This period started with an interest in farmers seeking information about a more scientific agriculture. Subsistence agriculture was being replaced with an industry charged with feeding a rapidly growing country. Public policy at both the Federal and state level had much to do with supporting the education of farmers and allowing an agrarian society to transition into the industry of agriculture.

The early American colonies were truly an agrarian society. The production of food was the predominant occupation and the nation thrived on the principle of equal land access for all members of society. Education served a primary function to make the population literate so they could read the Bible, and carry out the writing and ciphering necessary for business (E. Persons, personal communication, December 20, 2001). Until that time, adult roles in the economy were accessible with a minimum of formal education (Calhoun & Finch, 1976).

Early Interest in a more Scientific Agriculture

Interest in a more scientific approach to agriculture started to emerge during this period. Jared Eliot was born in 1748 and spent his lifetime in New England as a physician, clergyman, and agronomist and was well noted for providing colonial farmers with some of the first technical literature about farming. In *Essays upon Field Husbandry in New England* (1760), Elliot spoke about reducing inefficiency and waste in colonial American farming methods. He had first become concerned about soil when he noticed that water running from a bare hillside was muddy, unlike water running from grassy and forested areas. He conducted experiments such as plowing

green crops back into the soil to enrich it, and planting grasses and legumes to make better pastures for livestock (Horwitz, 1980).

Another example of interest in a more scientific approach to agriculture was the founding of the Philadelphia Society for Promoting Agriculture in 1785. The membership of the society included George Washington, four signers of the Constitution, and many Revolutionary War officers. The society published many articles centering on land use, new seed varieties, animal husbandry, and suggestions for elimination of the wheat pest known as the Hessian fly. Soon after the establishment of the Philadelphia Society for Promoting Agriculture many more societies were created in the early colonies with the primary purpose of educating the farmer. Names of two of the early societies were The Berkshire Agriculture Society of Western Massachusetts and the Columbian Agriculture Society of Washington, D.C. The establishment of agricultural societies became so popular that many state legislatures offered financial assistance to the societies and the educational fairs they were providing for farmers (True, 1929).

The first journals dedicated to informing and entertaining farm families arrived soon after the creation of the early agriculture societies (Horwitz, 1980). *The American Farmer* in1819, *The Ploughboy* in 1819, and *The New England Farmer* in 1822 were the first journals of their kind. These journals gave farmers access to the latest technological information, and a basis from which to debate its application and adaptability (Persons, 1982). These early efforts in agricultural education were grassroots events, they were neither the brainchild nor the product of the present educational system (Persons, 1982).

Early Public Policy Serving Agriculture

In the early eighteenth century in *Gulliver's Travels*, Jonathan Swift (1706) wrote, "Whoever could make two ears of corn or two blades of grass to grow upon a spot of ground where only one grew before would deserve better of mankind and do more essential service to this country than the whole race of politicians put together" (p. 143). He was later quoted by Isaac Newton, the first Commissioner of Agriculture in 1863, "It should be the aim of every young farmer to do not only as well as his father but to do his best: to make two blades of grass grow where but one grew before." The first U.S. census of 1790 revealed there were four million Americans living in the thirteen original states along with Kentucky, Ohio, and Tennessee. By 1850, there were twenty-three million Americans living in thirty-one states (Horwitz, 1980). During the last quarter of the 1800's the eastern seaboard industrial cities were filled with immigrants who arrived from Europe and other continents to fill the needs of the labor force for the emerging Industrial Revolution.

Other European immigrants came to America to farm the vast fertile land of the Midwestern states. The United States Department of Agriculture was established in 1862, along with the Homestead Act of 1862 to recognize and support the large number of immigrants who were moving to the West. The Homestead Act provided land in parcels of 160 acres for \$1.25 an acre and clear title if they homesteaded for six months (U.S. Statutes at Large 14, 1862). Many of these early settlers came with only the farming knowledge and skills developed in Europe and a desire to make a better life for themselves. They often chose geographical areas to settle that were similar to their home countries. They needed little new information about farming initially because the

farming environment was familiar to them. Germans and Irish settled in southern Minnesota, and Scandinavians much preferred the wooded areas of central and northern Minnesota.

Agriculture is Called to Feed the Rapidly Growing United States

The challenge for these new farmers was to farm larger tracts of land more efficiently with limited access to additional mechanization, capital, and labor. The only mechanization available was the horse drawn plow, reaper, and hay mower, which were all developed between 1834 and 1837. The introduction of these mechanical innovations provided the foundation for the American Agricultural Revolution of 1880. These innovations and public policy supporting the industry of agriculture did much to mobilize farming out of its present agrarian activity into something much larger. Subsequent public policy focused on transforming farming into an industry that was challenged with feeding the country. Between 1860 and 1900 over 400 million acres were opened for the production of food and fiber (Horwitz, 1980).

The Homestead Act of 1862 also encouraged speculation in farmland from groups of individuals other than the new immigrants. The Northern Pacific Railroad was encouraged to build a railroad from the Great Lakes to the Puget Sound and was granted huge swaths of land between the two points. The railroad hoped to create an economic base to support the construction of the railroad by selling the land to farmers and land developers. The railroad fell on hard times of the market crash of 1873 and was forced to make an offer to bondholders: the railroad would exchange land for the bonds. This made large tracts of valuable railroad land available at a discounted rate to investors (Prairie Public Television, 1998).

This opportunity was seized by James Power of the Dakota Territory and thus set up the first of over 91 Bonanza farms in the Red River Valley. Farms were organized at a minimum of 3,000 acres, with some farms over 42,000 acres. The Bonanza farms employed over 100 workers living on a single farm, using the most modern large-scale horse drawn machinery of the day to raise a single crop, hard red spring wheat. Speculators from the Eastcoast were the absentee owners of these huge farms that were a hundred years ahead of our present day operations. These professionally managed operations had spectacular harvests on the virgin soil and at harvest time brought in labor gangs from Chicago and other midwestern cities (Horowitz, 1980). The Bonanza farm concept remained for over thirty years but over time failed, as the transient labor force became unpopular in local communities, the price of wheat fell, and eventually the speculators divested their holdings to local farmers.

Early Public Policy Serving the Needs of the American Farmer

The federal government established another policy initiative to address the educational needs of this rapidly growing rural country. The Morrill Act of 1862 donated each state 30,000 acres of public land to establish public universities that would educate the masses in agriculture and mechanical arts (U.S. Statutes at Large 12, 1862). The lands were to be sold and the proceeds invested to provide a perpetual endowment to support the colleges (Abraham, 1986). Prior to the Morrill Act of 1862 education in agriculture, home economics, and mechanics was available only to the children of the elite who could afford to be educated at a private university. Many of the Land Grant Universities such as Texas A&M, identified their land grant universities

with the "A&M" designator. The A represented agriculture and M signified mechanical. Thus the name "A&M" attached to many great schools established from this initiative (E. Persons, personal communication, December 20, 2001).

Prior to this national initiative, Minnesota amended its constitution in 1851 to accommodate the creation of the University of Minnesota. The Morrill Act allowed the state of Minnesota to further enhance its mission in public education and established the University of Minnesota as a Land Grant institution with a College of Agriculture in 1868 (Abraham, 1986). Numerous attempts were made by this early college to satisfy the demands of these farmers by offering practical agricultural education in the format of seminars and short courses, but progress came slowly. There was little concept of what the curriculum should contain and there was difficulty attracting students (Abraham, 1986).

Professor Edward Porter was appointed to head the agriculture department of the University in 1881. The department initially had no student enrollment at the time and Porter supported the earlier attempts to establish short courses of instruction for farmers on animal husbandry and crop production. Starting in 1881, he ordered a short course to be presented by experts outside of the University to cover topics of dairy cattle, diseases of domestic animals, farm orchard, strawberry and grapevine culture and management of native forests. The short course attracted 250 persons and was declared a success. The effort was enhanced in 1883 by offering four, weeklong short courses with 208 people attending. Each of the four weeks was devoted to a different agricultural topic. The topics of the short courses were: (a) horticulture and amber cane; (b) breeding and rearing domestic animals, including their diseases and treatment;

(c) dairy and sheep husbandry; and (d) farm hygiene, forestry, cereals, soils and general management (Abraham, 1986).

In 1882 Porter offered a similar set of agriculture courses and introduced cookery for women. The attendance increased to over 1,100 individuals, the majority of which were women. University of Minnesota President William Watts Folwell criticized the efforts of Porter efforts to include this domestic science. As a result, Porter abandoned the short course concept and subsequently established farmer institutes.

The Minnesota Dairyman's Association in 1884, under the leadership of H. E. Hoard, conducted the first meetings for farmers in Mankato, Minnesota (Gregg, 1888). The meetings were successful in providing informal information to farmers on topics that centered on animal husbandry and agronomy. In 1885, the group made an unsuccessful attempt to secure \$5,000 from the Minnesota Legislature to fund additional associations. In 1886, Porter persuaded the University of Minnesota Board of Regents to appropriate \$1,000 for farmer institutes (Gregg, 1888). The farmers' institutes are regarded as the predecessor to the Minnesota Extension Service (Abraham, 1986).

In 1897, H. E. Hoard, then a Minnesota state senator, introduced and sponsored a bill to continue to maintain farmers institutes, with \$7,500 annually. Minnesota State Representative William Estes of Madelia sponsored a House version of a similar bill to continue farmer institutes. Estes was largely responsible for having the bill pass the Minnesota House. Senator Hoard then took charge of this House bill and secured its passage in the Senate and its enactment into law (Gregg, 1888).

The Act (HF No. 452) provided for the close cooperation of the Farmers Institutes with the College of Agriculture and the University of Minnesota Board of Regents. It also provided that financial reports of farming activity should be made to the University (McNelly, 1960). This is the first evidence that policymakers were seeking knowledge about the financial impact on farmers of receiving scientific information generated through the University of Minnesota. Unfortunately, there is no evidence to suggest there was an effort made by the University to make use of the financial reports for the direct financial benefit of farmers. The financial reports were, however, used by the College of Agriculture to determine the financial impact of newly adopted varieties, breeds, and farming practices upon the financial well-being of the farmers. Farmers were not receiving any instruction on use of this financial information to help them make decisions on their farm operations. In fact, farmers were not required to report financial information for income tax purposes until the creation of the 1913 Federal Income Tax Amendment. The notion of using purposeful and carefully planned formalized instruction in the use of financial records to make business management decisions on the farm did not materialize until many years later. Early Public Policy Initiated for Agricultural Education in Schools

Other publics within the agriculture industries were dissatisfied with the legislation that established Farmer Institutes because it focused little attention, if any, to education needs of secondary or elementary students. The National Grange and other agricultural groups lobbied for a special legislative committee to address the issue (McNelly, 1960). One recommendation of this committee was to establish a formal school of agriculture at the experiment farm near the campus of the University of

Minnesota, St. Paul. The Minnesota School of Agriculture, the first of its kind in the nation, was subsequently established in 1888, with an enrollment of 47. The agricultural experiment station farm was located in St. Anthony Park (the current site of the St. Paul Campus of the University of Minnesota). This residential school operated from November through April and was open to boys over 14 years of age who had completed their common-school training. The facilities at the school included 249 acres of land, a chemical laboratory, barn, implements, and water systems from the experiment farm along with a \$40,000 building for "educational, culinary, and dormitory service" (True, 1929).

The first year of study for boys included courses in English, arithmetic, algebra, accounts, physical geography, botany, physics, woodworking, mechanical drawing, farm management, farm architecture, and horticulture. The second year of study included algebra, geometry, civil government, political economy, agricultural chemistry, animal physiology, soils, fertilizers, livestock, veterinary science, and horticulture (True, 1929). Students also had the opportunity to complete practical work on the experimental farm and were required to complete work in agriculture during the summer between the two years of school. During the next 20 years, the school added two more years to the program and the enrollment grew to 462 boys and 192 girls in 1908. Similar schools were later established in conjunction with agricultural experiment stations in Crookston in 1905 and at Morris in 1909 (True, 1929).

In 1905, the Minnesota Legislature passed the County Agriculture School Act, which gave counties the option to establish county schools of agriculture. The act provided at least 10 acres of land for experiments and demonstrations. County voters

voted for the construction and operation of the school and the state supervised the instruction at each school. Though passed by the legislature as an innovative idea, no schools were established under this act (McNelly, 1960).

Three different bills were introduced in 1909 in the Minnesota Legislature regarding secondary agriculture education in Minnesota. The Johnson Bill proposed an expansion and improvement of the 1905 County Agriculture School Act. The Stephens Bill proposed establishing an agriculture high school, similar to the Minnesota School of Agriculture, in each of the Minnesota Congressional Districts. The Putman Bill proposed establishing agriculture programs in existing or consolidated schools. Of the three bills introduced in the Minnesota Legislature, the Putman Bill received the most support and was passed into law on April 20, 1909.

The Putman Act provided \$2,500 for each of 10 selected schools providing they also had a tract of land not less than 5 acres for school gardens and for purposes of experimentation and demonstration. Some of the features of the 10 original Putman schools are listed below (McNelly, 1960):

School	Size of Farm (acres)	1909 Enrollment
Albert Lea	16	45
Alexandria	10	47
Canby	22	22
Cokato	15	14
Glencoe	10	15
Red Wing	7	41
Lewiston	9	21
Wells	13	25
Hinckley	5	15
McIntosh	160	18

Table 1. Enrollment in Minnesota Putman Programs of Agriculture

In 1911, the Minnesota Legislature passed the Benson-Lee Act, which provided for 30 more Putman programs and 50 new programs; however, the new Benson-Lee programs received only \$1,000 and were not required to maintain the five-acre experimental tracts of land. By 1917, the popularity of the programs had grown and there were agriculture departments in 129 Minnesota high schools (McNelly, 1960).

Meanwhile, the efforts of the Farmers Institutes continued for over twenty years and were eventually replaced by programs provided by the Minnesota Extension Service. The Minnesota Agriculture Extension Act (MAEA) of 1909 aided the transition away from annual farmer institutes. This Act created a division of Agricultural Extension and Home Education in the Department of Agriculture at the University of Minnesota. The programs created by the MAEA of 1909 were to devise, prescribe, and teach comprehensive and elementary courses in the various phases of husbandry. Programming was delivered by correspondence with individuals at their homes, through local lectures, and demonstrations. The programming was designed to include any information that might elevate agriculture to a higher social plane and to make country life more attractive (McNelly, 1960).

Five years later, the federally sponsored Smith-Lever Act of 1914 broadened the initiatives and the scope of the Minnesota Agriculture Extension Act. This Act clarified and broadened Agricultural Extension's scope to aid in disseminating useful and practical information on subjects in the field of farm homemaker and agricultural economics (Phipps & Cook, 1952). Congressman Lever supported the act before Congress in these words (McNelly, 1960):

To teach the farmer better methods of increasing production is important but not more vitally so than is the importance of teaching the best and most economical methods of distribution. The teacher or demonstrator will be expected to give as much thought to the economic side of agriculture, marketing standardizing and grading farm products as he gives to larger acreage yields. He is to assume the leadership in every movement whatever it may be: the aim of which is better farming, better living, more happiness, more education and better citizenship. The bill provides the authority and the funds for inaugurating a system of teaching the farm wife and the farm girl the elementary principles of homemaking and home management and your committee believes there is no more important work in the country than this. (p. 42)

The instructional efforts of the extension program certainly were focused on providing education to farmers but not in a formalized fashion. The new agriculture departments in Minnesota high schools delivered formalized instruction that focused on agriculture, manual training, and home economics to secondary students. The instructors of these programs were also encouraged to communicate with and provide information to adults in the communities they served.

A.M. Field was the high school agriculture instructor in the newly created Northfield agriculture program (The Visitor, 1914). During his tenure, he pioneered the first efforts to organize farmer clubs and educate the farmers in the Northfield area in a formalized fashion. Field was enthusiastic about farmer education and especially about forages. As a result, he earned the nickname Alfalfa Field (E. Persons, personal communication, December 20, 2001). Field was later appointed Head of Agricultural

Education at the University of Minnesota in 1934. He served in that capacity until his retirement in 1948. In the third issue of the newly created journal for Minnesota teachers of agriculture, manual training and home economics, *The Visitor*, Field (1914) reported on the progress of the twenty new clubs, "There is not a farmer within ten miles of Northfield who has not had access to at least one of these clubs" (p.2). *Public Policy for Vocational Education Emerges*

Field was elected president of the Minnesota Agriculture Instructors Association (MVAIA) in 1914, and was instrumental in making the arrangements to have David Snedden, Massachusetts Commissioner of Education, speak at the third annual meeting of the Association (The Visitor, 1914). The selection of Snedden to speak was timely and well chosen. Snedden was an early advocate of public dominion over the education of the masses emerging from the corporate-urban-industrial phenomena in our country. In his writings and speeches he argued that human beings fell into ability levels, which parallel the hierarchical work requirements of modern society (Snedden, 1931).

Snedden mentored Charles Prosser, who later was instrumental in working out the final wording of the Smith-Hughes Act of 1917 (Wirth, 1980). There was continual debate during the previous thirty years about the public's role in education. Snedden and Prosser created the dominant paradigm of vocational education in the early years of the 20th Century. Snedden established nine premises or beliefs in his Doctrine of Social Efficiency (Snedden, 1931). They were:

 Democratic representative form of government is the ultimately good political system.

- (2) Industrial revolution has brought the world a better way of life.
- (3) Corporate/industrial/urban complex is the way of the future (dull, routine job still best).
- (4) Group is the primary concern not the individual...."misfits" do not conform.
- (5) Society as properly differentiated into socioeconomic class schools help find role.
- (6) Responsibility of schools to determine probable destiny of the student.
- (7) Proper education for the "rank-n-file" workers is based on reform school model.
- (8) Job training should be based on the needs of the industry.
- (9) Ultimate responsibility of Vocational Education is to provide a productive, happy work force responsive to the needs of industry and the social good.
 (Snedden, 1931)

The Smith-Hughes Act was the first chapter in a long human-rights crusade, a climax toward compulsory secondary education and public control of vocational education (Swanson, 1986). The Smith-Hughes Act did much to help expand the formalized teaching of agriculture, family education, and industrial technology in Minnesota public high schools. The nature of education in the agriculture programs was vocational in nature and focused on farming. Additionally, there was more uniformity of the instruction throughout the state because all programs needed to meet the guidelines to qualify for reimbursement under the 1917 Smith-Hughes Act. This in itself, led to an initial downsizing in the number of programs in Minnesota as they attempted to meet the new program requirements. In 1938, the number of vocational agriculture departments had surpassed the high point put in place by the Putman and

Benson-Lee Acts. The peak number was reached in 1958 with 259 vocational agriculture departments in Minnesota high schools (Kortesmaki, 1983).

Events within this period provided the foundation for the creation of a system of vocational education directed at needs of adult farmers and secondary students studying agriculture. This period also supported the creation of a system of extension education, a system that supported the efforts of farmers. Lastly, this period witnessed the establishment of a new American industry of agriculture. Public policy actions that furthered career and technical education along with new policy initiatives in agriculture played a vital role during this timeframe and set the stage for the sustained growth of the industry into the next timeframe.

Chapter 3

Vocational Education of Farmers in Minnesota and the United States

from 1917-1952

The next 45 years was truly a situation of either financial feast or famine for American farmers. The period began with the Golden Age that ended abruptly with the onset of World War I. It took nearly ten years for farmers to recover from that downtum in the industry only to find themselves mired in the tough times of the Great Depression. World War II brought them out of the depression and back to prosperity by the end of the period. A number of policy initiatives did much during the period to give long- term sustainability for the industry. First, the role of extension educators was enhanced and emphasis was placed on cooperative extension research and dissemination efforts. Results of research, which was conducted on research stations, included the development of hybrid seed corn, pesticides, and commercial fertilizer. Additionally, the G.I. Bill of World War II provided the framework for Minnesota agricultural educators to implement the first formalized system of vocational training for farmers. This system provided the information, successful teaching and learning experiences that resulted in the creation of the Minnesota Farm Business Management program.

Agriculture Feeds the World

The period preceding World War I was the most secure and productive for the American farmer and is commonly referred to as the Golden Age of agriculture (Horwitz, 1980). The aim of every farmer during that period was to produce as much as they could and receive maximum income as possible by selling their products to the

booming domestic and international markets (Horwitz, 1980). The policy of the federal government supported and fostered research in agriculture through the infrastructure and policies outlined in the Hatch Act of 1887. Results of the research conducted by scientists at the experiment stations were brought to farmers to enhance their production via Minnesota Cooperative Extension agents who were supported through funds from the Smith-Lever Act of 1914 (NcNelly, 1960).

Farmers were encouraged to maximize food production during World War I. When the war ended a new generation of farmers returned to borrow large amounts of capital to buy farms. This accelerated the growing surplus of farm commodities and fueled even lower commodity prices. The burgeoning supplies of farm commodities lead to the first farm crisis that began in 1920. In the period from 1920-1921 farm commodity prices dropped 53%. Thousands of farmers could not make good on their mortgage payments. As a result, many made an exodus to the urban areas for employment (Horwitz, 1980).

First Public Policy at the National Level to Subsidize Agriculture

The Great Depression of 1929 forced even more farmers from the land. It is estimated that over 750,000 farmers were forced out of business during this time. Prices for farm commodities in the period from 1929-1932 dropped an additional 56% making prices for farm products lower than any time in the previous 300 years (Horwitz, 1980). The New Deal Legislation of the Franklin Delano Roosevelt administration did much to bolster employment and jump-start the American economy and the industry of agriculture (Horwitz, 1980). The first federal legislation aimed at supporting agriculture of the New Deal was the Agriculture Adjustment Act of 1933. This act

brought farmers into a contract with the U.S. Department of Agriculture to control the production of certain commodities. In return for controlled levels of production the farmer would receive payments. These payments reflected parity to the income and prices received during the Golden Age of 1910-1914 (Horwitz, 1980). The theory was to balance the production of surplus farm commodities with this payment to farmers. Surplus commodities were distributed to the needy through food stamps and school lunch programs (McNelly, 1960).

These programs were responsible for raising farm income 50% from the period of 1932-1935 even though the number of farms had eroded to 6.8 million in the country. The Cooperative Extension Service (CES) was also influenced by the conditions of the act. The Act provided money to each state to hire agricultural extension agents for counties that did not have agents at the time. The Cooperative Extension Agents were also given authority to administer the policies of this Act with the farmers in their counties (McNelly, 1960).

The New Deal also created the Rural Electrification Act of 1935 (REA) that focused on establishing local electrical cooperatives that would eventually provide electricity to all rural areas of the country. Prior to the efforts of this act only 17% of farms in the U.S. had electricity in comparison with 93% having electricity in 1954 (McNelly, 1960) and 99% having electricity in 2000 (USDA, 2000). Once again Cooperative Extension Agents were asked to provide leadership in the organization of these new electric cooperatives in their counties. The innovative legislation of the New Deal provided relief to many desperate farmers. The income levels of farmers did not

rise completely to the previous levels of parity established in 1914, until the onset of World War II in 1941 (McNelly, 1960).

The Tennessee Valley Authority (TVA) was also created out of New Deal legislation in 1933 (TVA: Electricity for all, 2001). The TVA was one of the most ambitious projects of the New Deal in its overall conception. This comprehensive legislation focused on soil conservation, public utility regulation, regional planning, agricultural development, and the social and economic improvement of the "Forgotten Americans". In agriculture it introduced the modern agriculture technique of crop rotation to substitute nitrates available from alfalfa and soybeans, and it also focused attention on the importance of commercial phosphate fertilizers for crop production (TVA: Electricity for all, 2001). The application and benefits of the TVA programs were once again delivered through the efforts of the Cooperative Extension Service. *Formalized Education for Minnesota Farmers Emerges*

Minnesota initiatives carried out by Cooperative Extension personnel started earlier than the New Deal initiatives. The University of Minnesota Agriculture Economics Department developed an account book for recording farm records and a system for annual analysis of those records for research purposes beginning in 1918 (Aune, 1953). In 1928, the Minnesota Extension Service organized the Southeast Minnesota Farm Management Service group. This initial group of 147 farmers was organized into an association to have their farm records summarized and analyzed with other farmers. Each cooperator paid an annual fee to cover some of the cost incurred from the service and the University of Minnesota absorbed the remaining costs. The Agriculture Economics Department published the results and extension agents shared

that information with the association members on an annual basis. Eventually there was a change in philosophy in that farmers could use this analysis information to make management decisions for their own farm, and in 1939 the final service group was organized in Southwestern Minnesota (Painter, 1970). The education efforts of the Farm Management Service groups in providing record information became part of the foundation for the Minnesota Veterans Farmer Training (VFT) program that was initiated in 1947 (Cvancara, 1964).

The Smith-Hughes Act of 1917 did much to accelerate the introduction of agricultural education into the high school curricula in Minnesota. Although there was little in the act to support adult farmer education, the resulting proliferation of agricultural education in high schools did much to increase student knowledge about the occupation of farming and the development of skills needed to become successful. The Smith-Hughes Act of 1917 had a major influence in the efforts of Minnesota's state sponsored formalized educational efforts for the aspiring farmers. There were no new state or federally encouraged initiatives for agricultural education from 1917 to 1947.

The role of Minnesota education leaders in adult farmer education was enhanced under the leadership of George Cochran, program head of Vocational Agriculture, Minnesota Department of Education. He made a decision to use Smith-Hughes funds to establish adult farmer and young farmer instruction in high school programs of vocational agriculture. Instructors of local vocational agriculture programs were required to offer 20 hours of adult farmer instruction and 30 hours of young farmer instruction to be eligible for reimbursement of their salary, travel and other

selected expenses of the high school program (E. Persons, personal communication, December 20, 2001). His colleagues in the states of North Dakota, South Dakota, Iowa, and Wisconsin criticized Cochran for his unorthodox use of Smith-Hughes funding for secondary vocational programs. This forward thinking and bold action did much to put the formalized instruction of adult farmers decades ahead of any education efforts in those neighboring states (G. Leske, personal communication, November 11, 2001).

This new initiative in Minnesota directed at the education of the adult farmer was greatly expanded with the introduction of the War Adjustment Act of 1944. The War Adjustment Act provided for a systematic instructional program to be delivered to the young farmers returning from World War II. For the first time in the history of the United States, veterans were given an opportunity to receive timely instruction about proven farming practices. Although this initiative was under the authority of the federal government for addressing the education needs of present and prospective farmers, Minnesota educational leaders were allowed to define the components of the curriculum and method of instruction (please see appendix A). The Minnesota leaders relied heavily upon their experience in teaching vocational agricultural education at the high school level, and for all intents and purposes, implemented the first vocational agricultural education program for adult farmers in 1953. Most of the programs were located in communities with the existing high school vocational agriculture programs in Minnesota. Minnesota established over 100 Veteran Farmer Training programs during this initiative and these programs remained viable until their closure under federal mandate in 1979 (Thome, 1982).

The VFT program was developed on the principle of being learner centered rather than teacher centered. This concept reflected educational philosophy professed by John Dewey by the early 1900s'. In education Dewey opposed practices that treated learning as a passive process of absorbing information. He stressed the importance of learners being physically and mentally active as inquirers, which allows for developing broader skills of creative thinking, decision making, and cooperative problem solving (Dewey, 1914). The VFT program provided an increased interest in adult farmer classes. Many of the VFT program teachers stated that the best approach to use in training adults is the farm management education approach (Granger, 1954).

In the early stages of the VFT program the purpose of keeping farm records was primarily to provide a uniform way to measure income, since farmers with income above \$3,600 had to refund some of the subsistence payments they received from the federal government. The requirements for participation in the VFT program were quite simple. The program lasted three years and in each year an enrolled WWII student received 200 hours of instruction in large group settings and 100 hours of individualized instruction, which usually occurred on the farm (Phipps & Cook, 1952). Class subjects and activities focused on farm management, animal science, farm mechanics, soils and agronomy, agricultural economics, taxes, and farm record analysis. Students in the VFT program were also required to keep accurate farm records (please see Appendix A). It was not until later in the WWII VFT program (1950-51) that records were analyzed and the results were used to improve the process and quality of management decisions being made by these farmers (E. Persons, personal communication, December 20, 2001).

In 1946 a number of enterprising VFT instructors including Harry Pierce, Sr. at Staples and Ed O'Connel at St. Cloud, combined their trainees records to provide a business analysis. The Division of Agriculture Economics of the University of Minnesota provided assistance to this project similar to the studies that were already being done with the Minnesota Agriculture Extension's Southwest and Southeast Farm Management Service Associations (Pierce,1989). This effort was expanded to all willing VFT teachers from 1947 to 1952. These studies provided teachers and farmers an effective means from which to evaluate the farm business. The assistance provided by the University of Minnesota was critical in establishing a foundation for a system of farm record analysis (Granger, 1954).

The Minnesota model of instruction for the VFT program proved to be extremely effective. Many states later adopted the model as they implemented their programs for veterans. Due to the early success of the initial Veterans programs, additional programs were developed for veterans of the Korean Conflict and the Vietnam War. However, the educational requirements were modified to place more emphasis upon classroom instruction. The reason for keeping records (monitoring earnings) was dropped and replaced by the need to have accurate information for management decisions (E. Persons, personal communication, December 20, 2001). The emergence and continued success of this program, coupled with the emerging successful efforts of Farm Management Service Associations of the Minnesota Cooperative Extension Service, set the stage for the 1952 Cooperative Project in Adult Education in Agriculture, also known as Plan 143 (Granger, 1954).

Vocational Agriculture Farm Management Education Program Created

Plan 143 was developed in the summer of 1952 as an innovative approach to adult education for farmers within the existing framework of the Minnesota public school vocational agriculture programs. Dr. Milo Peterson, Head of the Department of Agricultural Education, University of Minnesota, elected to demonstrate its use with volunteer adult farmers. The purposes of the newly proposed Vocational Agriculture Farm Management Education Program were:

- 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 provide instruction which assists farmers to:
 - a. Organize the farm business more profitably;
 - b. Detect and correct weak points in a farming operation;
 - c. Determine accurately the status of the farm business from month to month and year to year;
 - d. Provide farm operators with records useful in establishing credit and obtaining loans;
 - e. Provide complete data for income tax purposes and thereby assure accurate returns and complete deductions; and
 - f. Receive the greatest return out of their farm business (Peterson, 1952).

A grant was secured from the James J. Hill Foundation to assist in program development and demonstration of such an effort and was titled the *Minnesota Cooperative Project in Adult Education* (MN State Curriculum Guide, 1990). Lauren

Granger was hired to develop and test the system in a cooperative effort at the West-Central School and Experiment Station at Morris, using the record analysis program developed by the University of Minnesota's Division of Agricultural Economics. In 1954, eight schools submitted 47 record books for analysis (Smith, 1954). This cooperative effort had four major components. They were:

- The local teacher of agriculture was responsible for individual instruction on the farm and assistance in keeping farm records and completing the analysis (please see Appendix B and C).
- The Agriculture Economics Division at the University Farm provided the account book analysis, research, and instruction to the teachers of agriculture.
- The Agricultural Extension Service was to provide the agriculture instructors with materials for instruction.
- The Minnesota State Department of Education assumed responsibility for working with local school administration for offering the program and funding for the instructors salary and travel (Smith, 1954).

This project led to nearly 50 years of highly successful program delivery in adult farm management education. Evidence of the profound and lasting success of this program can be supported with the fact that in 2001 there are 103 instructors with over 4,000 students enrolled in the MnSCU Farm Business Management Program (J. Murray, personal communication, January 18, 2002). This program also established a system of formalized instruction in farm management that established a national

standard of uniformity. Eleven states adopted this model of instruction for their farm management education programs (Persons, 1980).

This period certainly provided difficult times for American farmers, however it was carefully constructed policy initiatives that produced the outcomes that did much to bring about prosperity at the end of the period. The products of research from Experiment Stations and Cooperative Extension were used in the ensuing 50 years to feed the world. The newly created Farm Business Management Program and Veterans Training Program were also positioned to provide systematic instruction of the principles of farm management to Minnesota and U.S. farmers in the next 50 years. It was the beginning of a promising future for the Minnesota FBM in providing the essential management education to farmers.
Chapter 4

Farm Business Management Education Program in Minnesota from 1954-1983

The next 30 years started with excitement and prosperity and ended with the farm crisis of the 1980's. Farmers increased the number of acres farmed and livestock raised, machinery was designed for greater capacity and efficiency, genetics improved, and farmers' appetites for knowledge increased greatly. Policy changes were minimal from 1954-1983. This was a period when farmers used the cooperative extension research and instruction in the principles of management education through FBM to answer their charge to feed the world.

The Green Revolution

Between 1950 and 1960, American agriculture underwent what has been called the Green Revolution. Machinery was rapidly modernized and farmers produced large quantities of food at ever-increasing rates (Horwitz, 1980). By 1983 each U.S. farmer was feeding 87 people in the world (Minnesota Agricultural Statistics, 1987). Farmers adopted technology that was discovered through research conducted by the Minnesota Experiment Stations and disseminated by the Cooperative Extension Services and Farm Business Management Education programs. Minnesota Experiment Station research efforts in Minnesota included the disbursement of the first hybrid seed corn in 1930 and the Tennessee Valley Authority test demonstration plots of the 1940's to name a few (Abraham, 1986). Selected FBM programs also engaged in on-farm research and demonstration of emerging technologies. For example, corn and herbicide demonstration plots were established in 1967 and continued until 1999 by the Faribault FBM program. These plots differed in the small plot work typically done by extension

research in that each of these plots typically a half-acre per treatment and were conducted by farmers enrolled in the program (Wertish, 1993). By 1974 the use of hybrid seed corn, commercial fertilizers, and herbicides was commonplace on nearly every acre of Minnesota farmland due to aggressive research conducted by Minnesota Experiment Station personnel and on-farm research (Miller, 1975).

The rapid increase in the production of farm commodities resulted in a surplus of grains and meats worldwide. In 1950, agriculture exports accounted for only 10% of domestic production, and by the end of the 1970's this percentage had tripled (Horwitz, 1980). Even Soviet Premier Nikita Khrushchev was impressed enough as he visited the Garst farm in Iowa in 1960 to want to learn how the farmers labor and farm laborers of less than 10% of our population could feed the country, with an embarrassing surplus to spare (Wirth, 1980). The U.S. became export oriented and adopted the Food for Peace program in 1961 to ease the growing surplus of farm commodities (Horwitz, 1980).

The term agribusiness emerged as a common term due to language in agriculture and the Vocational Education Act of 1963. The continued decrease in manpower requirements on farms brought about the dramatic emergence of occupations closely integrated and interdependent with farming. Milo Peterson (1964) stated:

In truth, the entire meaning and concept of agriculture has advanced to a new stage in its metamorphosis. Where farming and agriculture were once synonymous they now assume a different relationship to each other. Today it is sometimes difficult to isolate clearly specific areas of agriculture from other areas of business, commerce, industry, and technology. Basic to the development of occupational opportunity of agribusiness is the scope and

quality of the farming business. The technological revolution of our century precipitated a merging of space and time, of field, and factory, of laboratory and husbandry, of experimental investigation and practical application, and of mass media of communication and farm marketing schedules. Indeed, it is by no means easy to tell who is the farmer and who is something else. Thus from the needs of farmers we derive the prime objective of adult education in agriculture. (p. 184)

Farm Business Management Growth During the Green Revolution

This period was critical for the acceptance and ensuing growth of the Minnesota FBM program and the VFT program. The time had come for Minnesota farmers to make valuable use of vocational education programs that primarily focused on instruction about the management decision-making process. The curriculum of the present VFT program focused on the principles of utilizing modern technology, machinery repair, livestock improvement, crop improvement, and management education. The curriculum of the newly created FBM centered its program of instruction on management education. The curriculum focused on five general areas of instruction (Marvin, 1983). They were:

- goal orientation
- establishing a data base of financial information for farmers
- analyzing record information
- a planned course of study
- individualized instruction

The outcome of this curriculum provided adults with the understandings and skills necessary to assemble the essential facts about the farm business and apply sound management principles for the organization and operation of the farm business (Gardner, 1967). Milo Peterson went further to support the need to help guide the decision making process with his statement of philosophy in the February, 1964 issue of *The Agricultural Education Magazine*:

When a farmer reaches the point of decision he must apply the findings of research, outlook information and price trends, new developments in mechanization, and all other pertinent information to his individual farming business. Averages, the neighbor's experience, general principles, all must be adjusted and adapted to a situation that is different from any other situation just as a farmer is different form other farm operators. And unless we have equipped him for this decision-making process we have not brought the learning-teaching process to its culmination. Without adequate farm records and accounts a farmer must make the crucial management decisions by guess and by gosh. He is flying by the seat of his pants. (p. 183)

G.R. Cochran, State Supervisor of Agricultural Education in Minnesota, remarked at the 1965 Central Region Conference of Agriculture Supervisors (MN Department of Education, 1965).

Over the years agriculture has emphasized production. Vocational agriculture teaching at the high school and the adult level has emphasized production. The Minnesota FBM program is concerned with farm business management and farm organization decisions. Our belief is that farm management education as a

basis for an adult program, is sound, logical, and a forward step in our vocational agriculture education program. (p. 3)

Farm management in the public schools was intended to be a year around continuing program with more emphasis on what to do and why, rather than how to do it. George Cochran defined this instructional process as the farm management phase (MN Department of Education, 1965). The farm management phase was subdivided into nine areas, which were to be approached in a definite chronological order (please see Appendix D). Farm management phases forwarded by Cochran were:

- 1. Analyze the present situation
- 2. Locate the problem
- 3. Set up objectives or goals
- 4. Size up the resources
- 5. Look for various alternatives
- 6. Consider probable consequences and outcomes
- 7. Evaluate the expected results
- 8. Decide on the course of action
- 9. Put the plan into effect (MN Department of Education, 1965)

By the time the Veterans Farmer Training Programs were mandated for closure in 1979, over 7,000 farmers were enrolled in the 135 FBM programs offered through Area Vocational Technical Institutes and local public school districts in Minnesota (Morgan, 1985). It was interesting to note that even though Veterans programs were mandated for closure, many programs remained in place until the mid 1980's because veterans still had benefits remaining (V. Richardson, personal communication, January 18, 2002). Table 3 identifies the enrollment in both programs from 1952 to 2001, and Figure 1 displays the enrollment trends in a graphic format over the same period.

Number of records analyzed 1952-2001			
	Total of records submitted	Total of records submitted	% of records in statewide
Year	for area analysis	for statewide analysis	analysis
1952	56	56	100
1953	97	97	100
1954	46	46	100
1955	192	192	100
1956	265	265	100
1957	357	357	100
1958	382	382	100
1959	378	378	100
1960	394	342	87
1961	392	365	93
1062	450	420	93
1962	659	420	64
1905	784	628	80
1904	1 050	018	87
1905	1,000	1 069	83
1966	1,292	1,009	88
1967	1,518	1,002	00
1968	1,670	1,405	80
1969	1,951	1,551	79
1970	2,184	1,693	78
1971	2,828	2,049	12
1972	3,575	2,360	66
1973	4,650	3,056	66
1974	5,359	3,078	57
1975	5,624	3,176	56
1976	5,874	3,305	56
1977	5,344	3,089	58
1978	4,601	2,468	54
1979	4,337	2,330	54
1980	4.190	2,526	60
1981	3.743	2,303	62
1982	3,405	2.054	60
1083	2,944	1.763	60
1084	2 874	1,658	58
1095	2,860	1 736	61
1905	2,000	1 774	61
1900	2,500	1 952	60
1907	3,255	2 044	59
1988	3,455	2,044	64
1989	2 074	2,410	67
1990	5,974	2,000	70
1991	4,037	2,045	69
1992	3,798	2,575	08
1993	3,603	2,542	
1994	3,623	2,531	70
1995	3,411	2,388	10
1996	3,536	2,475	/0
1997	3,485	2,440	/0
1998	3,310	2,317	/0
1999	3,502	2,452	70
2000	3,276	2,293	70
2001	3,454	2,418	70

 Table 2. Enrollment in the Combined Minnesota Farm Business Management

 Programs



Figure 1. Graph of the Enrollment in the Combined Minnesota Farm Business Management Education Programs

Area Coordinators Created

Before the program had completed its two-year trial phase, the Minnesota State Department of Education concluded the program would develop more rapidly and become more effective if a state wide system of coordination was put into place (Molenaar, 1995). As a result, Minnesota was divided into eight regions and part time area agriculture instructors were assigned to each region to serve as area coordinators. These positions were moved up to full time status in 1960. In 1983, the number of regions was reduced to six. The title of the position was changed to Area Ag Coordinator when the State Board of Technical Colleges was established. These area coordinators were responsible for coordinating general vocational agriculture in the high schools, post secondary schools, and FBM programs. In addition to those tasks they provided in-service education to teachers; developed teaching materials for farm business management education instructors; conducted area FBM analyses; directed Regional FFA activities; and taught classes on an area wide basis (Molenaar, 1995). Figures 2, 3, 4, 5, 6 and 7 identify the regional coordinator areas and analysis centers in Minnesota as they developed from 1951 to 2002.

Figure 2. Regional Analysis Centers and Coordinator Area 1951-1952



1 - West-Central School and Station Morris

• 2 - St. Paul (Veterans Department)

Farm analyses prior to 1951 were done as part of the VFT instructional program. Record closing and analysis computations prior to 1953 were done by faculty from the Division of Agriculture Economics at the University of Minnesota.



Analysis Center Locations

• 1 - Morris

• 2 - St. Paul

In 1953 and 1954 the service areas had changed to include an analysis center in

Morris under the direction of Ralph Smith. The South-East area closing were

completed by Dr. T. R. Nodland.



Analysis Center Locations

- 1- Austin
- 2 Mankato
- 3 Morris
- 4 Thief River Falls

In 1955 additional analysis centers were opened at Austin, Mankato and Thief River Falls.



Figure 5. Regional Analysis Centers and Coordinator Areas 1956-1969

Analysis Center Locations

- 1 Austin
- 2 Duluth
- 3 Mankato
- 4 Morris
- 5 St. Cloud
- 6 Thief River Falls
- 7 Winona

In 1956 additional analysis centers were opened in Duluth, St. Cloud, and Winona.



Analysis Center Locations

- 1 Austin
- 2 Jackson
- 3 Mankato
- 4 Staples
- 5 St. Cloud
- 6 Thief River Falls
- 7 Willmar
- 8 Winona





Analysis Center Locations/Technical Colleges

- 1 Austin-Riverland Community College
- 2 Jackson-Minnesota West Community & Technical College
- 3 Mankato-South Central Technical College
- 4 Staples-Central Lakes College
- 5 Thief River Falls-Northland Community & Technical College

• 6 - Willmar- Ridgewater Community & Technical College The St. Cloud and Winona analysis centers and coordinators were discontinued

in 1977. All analysis centers are currently the authority of a technical college.

Curriculum Changes in Farm Business Management

The process of record analysis was computerized in 1965, through the efforts of Edgar Persons newly appointed assistant professor in the Department of Agricultural Education, University of Minnesota. Dr. Persons was appointed to support the development of management education in Minnesota, and his leadership in that role continued until he retired in 1996. The FBM program was meeting the needs of its students and the goals of vocational education policy initiatives through a constant and critical evaluation throughout this period under the leadership of Dr. Edgar Persons.

The computer analysis program was first contracted through Ag Records Cooperative, Madison, Wisconsin. In 1978 Southwest and Southeast Farm Management Service Associations of the Minnesota Cooperative Extension Service adopted Dr. Person's format and combined the data with the data from the six FBM areas for a statewide analysis. Later this contract was shifted to Specialized Data Systems of Madison, Wisconsin, where it remained until 1996. Southeast and Southwest data was excluded from the combined statewide analysis in 1983 when the Division of Agriculture Economics adopted the FINPACK analysis system. The Minnesota FBM program adopted FINAN as their primary annual analysis program and recombined their data with the Southwest and Southeast Farm Management Service Associations in 1997 (E. Persons, personal communication, December, 20, 2001).

Dr. Persons was also charged with preparing undergraduate students in Agricultural Education to teach farm business management. He developed and taught the course AGED 5049 Agricultural Education for Adults soon after his appointment to

the University of Minnesota. The course provided the foundation for teaching farm management education for the hundreds of instructors who received their Bachelor of Science degrees in Agricultural Education.

To maintain the instructional integrity of the program throughout the state, a comprehensive and sequential curriculum was adopted in 1970 (Molenaar, 1995). It was based upon a program of instruction for adult farmers developed in 1966 by Ralph Palan, a FBM instructor from Faribault, and a course of study in farm management developed in 1966 by Gene Francis, an FBM instructor from Blooming Prairie. The curriculum incorporated instructional materials for teaching farmers for their first years of enrollment in the FBM program. The instructional program was organized into four segments, Farm Management I (farm records and accounts), Farm Management II (farm business analysis), Farm Management III (farm business organization) and Advanced Farm Management. The content areas included in the curriculum were selected because of the relevancy for managing the farm business (please see Appendix E). One of the strengths of the program was the involvement of the farm operator and his wife in a serious study of the home farm business (Palan & Persons, 1972). Persons (1969) stated, "Adult education for farm operators makes a significant contribution to farm success. The relationship of the number of adult classes attended to the measures of gross income and gain in net worth are positive arguments for this statement." (p. 3)

In 1973 a call went out to all states that had adopted the Minnesota model for FBM to attend a conference in Faribault, Minnesota. Ralph Palan, Dr. Edgar Persons, and Ken Stassen led the group. This first National Invitational Farm Management

Education Conference incorporated an exchange of ideas among all instructors and state staff that adopted the Minnesota FBM approach to adult education in agriculture (State Curriculum Guide, 1990). The group continued to meet annually to share ideas and solve problems relating to teaching farm management to farmers. In 1985 the group formed the National Farm and Ranch Business Management Education Association (NFRBMEA) with a mission to increase the effectiveness of farm and ranch management education by promoting sound educational practices, increasing economic understanding, disseminating practical program information, and demonstrating exemplary procedures for educational program management (www.nfrbme.org). The current membership of the NFRBMEA includes 240 members from 22 states and Canada.

Throughout all of these changes in the programming and instruction during the first thirty years, the methods of delivery remained fairly constant. The method of delivery focused on small group instruction with on-farm instructional visits that were supported by a thorough and accurate analysis of the farm business of the student. The early FBM instructors understood the educational needs of the adult learner and they understood that it is a process of transformation of an individual's existing **h** nowledge to construct new knowledge as well as the reinforcement of existing knowledge (Billett, 1998).

Public Policy Effects upon the Farm Business Management Education Program

The funding structure of the FBM program underwent numerous changes in its early years. State and federal policy initiatives had much to do with the financial support needed to establish and maintain these programs. The first initiative came from

Minnesota in 1945 in the development of Area Vocational Schools (Painter, 1970). This funding provided additional aid to local school districts for providing agriculture training to students. The State Board for Vocational Education (SBVE), in accordance with the State Plan for Vocational Education, carried out the establishment of the Area Vocational Schools. Beginning in 1952, funding from the SBVE) was used to develop FBM programs in these area schools and high schools (Painter, 1970). The Vocational Education Act of 1963 also gave financial support to these early state initiatives as it included education for persons of all ages in all communities (Painter, 1970).

All of the FBM programs functioned under the authority of the Minnesota State Department of Education. A majority of the programs were located in a local school district and were accountable to the high school principal and superintendent. It was not uncommon for many instructors to teach high school agricultural education courses, advise the FFA Chapter, and teach farm management education to area farm operators. The remaining programs were located in area vocational technical schools (AVTI). In those cases it was simply a matter of whether the local school district had an AVTI within its district.

The 1970's were marked by heated debates in Minnesota over the role of public financing of adult education (E. Persons, personal communication, December 20, 2001). Several legislative attempts were made to limit the participation of farmers in the FBM program. In 1977 legislative action firmed up the support for adult education in farm management, but not without great controversy. The State Department of Education, which wrote the rules by which the legislation would be implemented, sided with earlier opponents of long-term public support for FBM education. The

Department promulgated rules that severely restricted the use of public funds for longterm farmer participation in the FBM program. A special legislative commission was convened and was responsible for the oversight of rule making as a result of efforts make by supporters of the FBM program. The large number of individuals opposed to the rules was overwhelming. On the oral and written response to the rules, more than 100 persons objected to the way in which the agency interpreted legislative intent. Less than ten persons found favor with the interpretation of the state agency. As a result, the final rule for financial support much more clearly matched legislative intent and issued that farmers could participate for longer periods of time. The solution was found by mandating that a certain percentage of those enrolled had to have six years or less of student tenure (E. Persons, personal communication, December 20, 2001).

In 1983 the State Board of Vocational Technical Education (SBVTE) was established. This new authority had responsibility for all educational programs in the AVTI system. As a result, all FBM programs located in AVTI's came under the supervision and management of that system and all local school district FBM instructors remained under the supervision of their assigned local school district (Molenaar, 1995). Additionally, each area agriculture coordinator was relieved of their responsibility for high school program and Regional FFA supervision. In the same year the SBTVE appointed John Murray, the Area Agriculture Coordinator at Jackson AVTI, as the new director of Management Programs in Minnesota (Molenaar, 1995).

There was also a considerable investment in research for program development and program evaluation from 1953 to 1983. It is estimated over a million dollars was expended by institutions and individuals in Minnesota in research related to

management education (Persons, 1980). During this period, several major research initiatives and scholarly research papers evaluated the effectiveness and resulting benefit to students enrolled in FBM. Major studies and scholarly research conducted at the University of Minnesota by faculty and students are as follows:

- Henrik Aune, 1953- Using the Minnesota Farm Account book and other farm management material in teaching adult farmers in the Morris area. This unpublished colloquium paper provided suggestions for organizing and conducting classes in farm management; possible uses for the Minnesota Farm Account book; suggested program of work by months; and suggested methods of instruction for adult farmers.
- Ralph Smith, 1955- The West Central School and Station as a regional center of analysis for farm records in the West Central area. This unpublished colloquium paper outlined the suggested schedule of visitations to farmers to help in entering record information and procedures in closing out the Farm Account Book.
- Delbert Hodgkins, 1957- Techniques and methods of instruction in farm management. This unpublished colloquium paper provided a variety of instructional ideas and methods of teachers to use in conducting formal farm management classes.
- Ralph Palan, 1960- A program of instruction for adult farmers in agriculture. This unpublished colloquium paper presented a curriculum for the three year instructional program for students enrolled in the Minnesota FBM program.

- Probasco, P. M., 1961- *Criteria used by selected Minnesota vo-ag teachers in the adult farmer program.* This unpublished colloquium paper assessed the criteria used by FBM instructors when selecting instructional methods for adult farm instruction.
- Joe Cvancara, 1964- *Input-output relationships among selected intellectual investments in agriculture*. This unpublished colloquium paper provided results of an investigation that evaluated whether instruction in farm management influenced various farm measures (returns) and thereby affected farm income.
- Bill Hohenhaus, 1964- An evaluation of the vocational agriculture farm management program in Southern Minnesota. This unpublished colloquium paper summarized the perspectives of students from Southern Minnesota regarding the effectiveness, strengths, and weakness of the FBM educational program.
- Edgar Persons, 1965- Farm and home business record analysis by the use of automatic data processing equipment. This unpublished colloquium paper provided a summary of the first computerized analysis of statewide farm records in Minnesota.
- Eugene Francis, 1966- A course of study for the on-the-farm instruction in farm management and farm business analysis. This unpublished colloquium paper provided suggested instructional methods and techniques to use when making farm visits with farm families.

- Dr. Edgar Persons, 1966- *The farmer and his educational investment: What are the relationships of this investment to farm success?* PhD. Thesis provided the first evaluation of the economic impact on farmers that were enrolled in Minnesota FBM programs.
- Persons, E.A., Swanson, G.I., Kittleson, H.M., & Leske, G.W. (1968). An economic study of the investment effects of education in agriculture.
 Washington, D.C.: Office of Education, U.S. Department of Health,
 Education and Welfare. This commissioned study examined the benefits that accrued to farm families who chose to participate in the intensive, goal-oriented, farm business management education program in Minnesota.
- Denny Lehto, 1969- Development and evaluation of a system of enterprise cost analysis to be used in an instructional farm management program. This unpublished colloquium paper provided the first format for enterprise cost analysis within the farm record analysis.
- Dr. Howard Kittleson, 1969- *Attitudes toward entrepreneurial behavior and education- their relationship to instruction*. This PhD. dissertation examined the effect of cumulative years of farm management instruction on the attitudes toward farming and education.
- Dr. Gary Leske, 1970, An evaluation of instructional innovations for adult agricultural education in farm business management. This Ph.D. dissertation developed and evaluated a system of electronic farm record keeping which provided cash flow data, income tax information, and the analysis information needed for the Minnesota FBM analysis.

- Vic Richardson, (1979). Rewarding returns from an ingenious investment: The Organization, analysis, and evaluation of adult farm management programs as they are conducted in Minnesota. This colloquium paper provided a comprehensive study of the effectiveness of selected features and activities of Minnesota FBM program.
- Gary Thome, 1982- An evaluation of the Veterans Cooperative Farm Management Program, 1947-1979. This Plan B paper reviewed the impact of the Veterans Farmer Training Program in Minnesota from 1946 to 1979.

Farm Crisis of the 1980's

While farmers were rapidly adopting technology, the average farm size was increasing twenty to thirty percent during each decade from 1950 to 1980 (Horwitz, 1980). From 1967 to 1969, the decrease in farm prices accelerated for major commodities, and as a result farmers participated in the federal government sponsored set-aside program (Agriculture 2000, 1983). This downturn in agriculture continued until the summer of 1972 when President Nixon crafted an agreement to open up vast markets for U.S. grains to Russia. This created a mood of euphoria in the industry and farmers increased their asset base of land and machinery to meet the need. Secretary of Agriculture Earl Butz, warned American farmers in 1972, to get big or get out (Horwitz, 1980). This led to an upward spiraling of speculation in land prices that did not stop until the onset of the farm crisis of the early 1980's.

President Carter placed an embargo on U.S. grains going to Russia in 1979. By 1982 interest rates skyrocketed to over 20% under Chairman Volker of the Federal Reserve Board of the Reagan administration. From a high established in 1978, land

values for prime southern Minnesota farmland plummeted from \$2,200 to under \$600 per acre in 1987 (R. Stevemer, personal communication, December 26, 2001). Tractorcades were moving on Washington D.C. protesting the financial plight of the American farmer. It is estimated that nearly 10,000 Minnesota farmers declared bankruptcy in the period of 1982-1987. Once again, farmers sought to find employment in the urban sector of our society (Minnesota Agricultural Statistics, 1987).

Student enrollment in FBM programs peaked in the early 1970's and then dropped rapidly as the Farm Crisis emerged in the early 1980's. Two factors contributed to the rapid decline in enrollment. First and probably foremost, was the closure of the Veterans Farmer Training programs. The exodus of farmers from the business due to his cost and low prices also led to declining enrollment. Farm Business Management instructors responded, and provided the right kind of just-in-time education necessary for farmers to remain in business. The farmers who remained in farming after the farm crisis need a **k**nowledge that emphasized business management with a special focus upon financial management (Wertish, 1983).

Chapter 5

Farm Business Management Education Program in Minnesota after 1983 Winds of Change

The Farm Crisis of the 1980's brought about many changes in agriculture. The formula of making more money by simply raising more livestock or grains did not work any longer. Farmers needed to learn how to access and manage capital in a more effective manner. Lenders changed their methods of operation as well. They required accurate cash flow statements, balance sheets, profitability statements, production statements as well as, marketing agreements and business plans before loan approval and disbursement. Most farmers could no longer simply access capital for their operation with a signature and a handshake. This new procedure for accessing capital was simply one of the many winds of change that modern farmers experienced. Farming was no longer considered a lifestyle in the country; it had to be viewed as a modern business operating within the industry of agribusiness.

Along with farming, agribusiness owners were not exempt from these winds of change; in fact, the entire industry of agriculture was undergoing profound change (Boehlje, 1999). Agribusiness has been the last sector of our industrialized nation to undergo industrialization. All sectors of the industry continue to merge and form alliances to efficiently reduce down to the Big Three concept so they can keep the stockholders content with their investments (Kohl, 1992). Farmers are constantly seeking ways in which to adapt to the chaos of this industry. They seek knowledge that will help them develop strategies for existence in a rapidly changing business environment.

Kohl (1992) described these changes as mega trends and advised farmers that they should recognize these mega trends and understand how they are affecting their business. Only with that basic knowledge of understanding can they prepare themselves to make the right decisions to assure that their businesses will survive and prosper (Kohl, 1992). Farmers are constantly hearing the phrase knowledge is power from bankers, marketing specialists, consultants, futurists, and economists. Education of farmers in the principles of business management skills and critical thinking will continue to provide sources of useful and critical knowledge to help develop the strategies necessary for survival and prosperity.

Public Policy Impacts Farm Business Management

The farm crisis of the 1980's also brought profound change to the FBM program in Minnesota. The Minnesota Legislature responded to the cries of rural Minnesota with the Omnibus Agriculture Act of 1985. This act provided funds for 19 new FBM programs; portable personal computers for every instructor; FINPACK financial management software; FINPACK training for each instructor; and tuition assistance for enrolled families (Murray, 1986). The result was significant growth in enrollment statewide (Figure 1, page 30), but more importantly a reinforced focus on developing the financial management skills needed by farmers.

In 1991 the Minnesota legislative session took action to merge the Minnesota Technical Colleges, Community Colleges, and State Universities into a single higher education system called the Minnesota State Colleges and Universities (MnSCU). The 1994 legislative session Law of Minnesota Article 5 finalized that action and mandated that all FBM instructors become direct employees of MnSCU. On July 1, 1995 all

FBM instructors came under the direct supervision of the Regional Program Manager (formerly called the Area Agriculture Coordinator). The title of the Regional Program Manager changed to Regional Dean of Management Education in 1996 to reflect continuity across the Community College system and the Technical College system (Molenaar, 1995). This policy initiative was significant because it put all FBM programs under one unified system. This was the first time since 1982 that all programs and instructors were under a single system.

Curriculum Changes in Farm Business Management

Program delivery also changed with the FBM program in the early 1990's. In 1992 the new six-year credit based curriculum went into effect replacing the hour-based program that was used prior to 1992. Enrolled farmers now receive a two-year certificate in Farm Business Management after successful completion of the initial sixyear program (please see Appendix F). The six-year concept was built on the longterm argument that due to the nature of the instructional program, a student who fully participated was equivalent to 1/3 of a full time student. It then stood to reason, that a day-school full time student would complete a certificated program in two years, an FBM student would complete the program in six years. The general concept of credit was based on a student being physically present for a given amount of seat time in a classroom or laboratory. This concept did not fit farmers who also were fully employed in their career choice of a farm business. To compensate for the differences between persons in school and farmers, a new concept of credit, termed a management credit was, developed (E. Persons, personal communication, December 20, 2001).

The management credit focused much more attention on experiential learning and concept application with a reduced emphasis on seat time. The management credit equipped the FBM program to deal in the common currency of credits used by other technical programs. This was essential in defining program effort, measuring teacher performance, and seeking financial aid support for students enrolled in FBM programs (E. Persons, personal communication, December 20, 2001). Little has changed since that merger except for the conversion to semester credits in 1998 and two additional programs being added. One is the newly created Marketing Certificate, and the other is the Advanced FBM Certificate. The Advanced FBM Certificate allows students to enroll in the FBM program for an additional three years after they receive the two-year FBM Certificate (please see Appendix G).

The adoption and use of personal computers along with ANAKEY, from Specialized Data Systems (SDS) analysis software in 1988, did much to bring the capacity to complete local analysis at the local FBM office (farm office or office of FBM instructor). The individual farm analysis was finally able to be completed in one on-site session. No longer did it need to be sent off to SDS for data summarization. In 1996 the FBM program discontinued their relationship with SDS and rejoined the analysis with the University of Minnesota Center for Farm Financial Management and became full partners in the use of the FINPACK analysis system called FINAN (E. Persons, personal communication, December 20, 2001). In addition, FINPACK cash flow planning and balance sheet generation have greatly enhanced the FBM educational effort through focus upon credit analysis and credit acquisition for students.

In recent years adoption and use of other technologies have allowed FBM instructors to become more efficient with their time and more creative with instructional methods. The FAX, e-mail, cell phone, laptop computer, personalized digital assistant (PDA), and the Internet are essential tools of the current practice for FBM instructors. In 1998 a Web site with a variety of resources on Web pages was developed for Minnesota FBM at www.mgt.org. All statewide annual analyses summary information is available on the Website for the years 1996 through 2001. South Central Technical College (SCTC) at Mankato, Minnesota, has been very innovative with technology as well. In addition to pioneering effective use of electronic mail capabilities, the first year of instruction in FBM will be available online for Fall Semester 2002 for farmers enrolled through SCTC. Innovative FBM instructors from Northland Community and Technical College in Thief River Falls, have created the on-line Marketing courses for teaching individuals interested in learning basic marketing principles and practices. All instructors have cell phones; all instructors have laptop computers; and the Faribault Campus has their own Web page. Farm Business Management Prepares for the 21st Century

A number of significant efforts have been made since 1983 to focus on the future of FBM in the new century. Persons, Lehto, Casey and Wittenberg completed a comprehensive study in 1987 that focused on defining what are the most important objectives and benefits received from enrollment in the FBM program. That study discovered that individual instruction using computers; assistance in keeping accurate farm records; and interpreting and analyzing farm records were the most important benefits of the FBM program. In addition, students felt that they benefited most from

individualized instruction over other methods of instruction. The results of this study supported the notion that the FBM program is successful and will continue to be successful if it remains focused on its core beliefs.

In 1999 a task force was assembled to address the changing needs of the management students. The Farm and Small Business Management Programs Task Force met on several occasions during that year to design the components of a uniform statewide customer focused educational program of instruction to meet the needs of farm and small business owners, operators, and managers (MnSCU, 1999). The task force consisted of farm and small business management instructors, Deena Allen an Associate Vice Chancellor of Academic Affairs in MnSCU, Regional Deans of Management Education, John Murray the State Director of Management Programs, and various administrators from Community and Technical Colleges. The Task Force was charged with defining uniformity for the following deliverables:

- Program definitions
- Suggested second version of Memorandum of Understanding
- Recommendations for improving processes
- Recommendations about college and MnSCU responsibilities
- Program outcomes
- Program review mechanism
- Funding recommendations

After carefully considering the current situation, the task force made several recommendations that helped provide uniformity across all campuses that deliver instruction in management education. Key recommendations were:

- Use the established statewide curriculum
- Continue to deliver management education on a credit basis
- Evaluate programs on an annual basis
- Develop and implement a uniform billing process for management programs
- Provide students with flexible tuition payment options
- Develop workload policies that are flexible enough to accommodate special circumstances such as those faced by a new instructor

Research conducted by Joerger, Ipe, and Persons (2000) from the Division of AFEE, University of Minnesota in cooperation with MnSCU supported many of the findings of previous research. Their study sought to determine the perceptions of students, FBM instructors, and agricultural lenders, as they assessed the program objectives and selected program activities and features of the FMB education program. A key finding of the study revealed that students believe they receive an annual increase in net farm income of nearly \$5,000 as a result of FBM education. Additionally, students enrolled in the FBM program received greater annual net farm income than most Minnesota farmers. The research also revealed that students are very satisfied with the FBM program, and 60% of the enrollees intend to participate in the program for seven or more years (Joerger, Ipe, & Persons, 2000).

The FBM management team of Regional Deans of Management was charged with completing a strategic plan in the summer of 2001. Initial input was gleaned from all instructors during the Minnesota Association of Agricultural Educators Annual Conference in Willmar. After the initial gathering of baseline information, a

representative group of instructors and Deans were charged with defining the remaining components of the plan. All Regional Deans and two selected instructors from each region meet on two separate occasions and came to agreement on the Strategic Plan for Minnesota Farm Business Management programs. The strategic plan identified a vision statement, a mission statement, goals, and strategies to achieve the goals identified. Highlights of the first strategic plan for FBM were (Christensen, 2002):

Mission Statement

The Farm Business Management education program provides student focused management education to help individuals in a position to make managerial decision that affect farm or agriculture business managers to achieve their business goals.

Customer of FBM Programs

Individuals in a position to make managerial decision that affect the farm or agricultural business.

Goals of FBM Programs

- Develop tools and systems to maximize the opportunities for studentcentered management education
- Offer affordable FBM education programs
- Foster collaborative efforts and partnerships that enhance FBM educational programs
- Create and enhance the awareness that potential student, the public, and the MnSCU System have of FBM educational programs

- Provide all FBM instructors with the education, professional development and skill training they need to effectively deliver FBM educational programs
- Develop and implement a systematic process to recruit, prepare, and retain highly motivated, high quality FBM instructors
- Maintain and enhance the current state and local FBM leadership

This period started with FBM establishing the principles of financial management as the core deliverable in the program of instruction program for enrolled students. The adoption of the personal computer and use of accounting and analysis software did much to transform the FBM instructional program into what is it is today. FBM instructors are key individuals in educating farmers on the application of technology in their farming operation. Business analyses are done on site and in a timely fashion for FBM students. The adoption of FINPACK software allows instructors to assist farmers in generating required cash flow projections and other necessary financial statements. The end result is farmers having more knowledge than ever before concerning their financial position. Policy changes now segregates the high school instructors from the FBM instructor. This resulted from Minnesota Legislative action that authorizes all FBM instructors to come under one system of delivery under MnSCU. Finally, the Minnesota Farm Business Management Education Program developed a strategic plan to address the changing needs of its customers and to remain a viable educational program for Minnesota farmers as we move into the new millennium.

Conclusion

There is a need for the FBM program in Minnesota. It has become the preferred provider of management education for farmers. This program of instruction has become an institution that has stood the test of time (Richardson, 1979). Farmers constantly seek knowledge that will help them develop strategies for existence in a rapidly changing business environment. Education of farmers in the principles of business management skills will continue to provide useful sources of knowledge to help develop those strategies for survival and prosperity.

This program has remained purposeful and viable because FBM educators have constantly examined the industry and assessed the needs of their clients. Over the past fifty years the practice has critically examined its curriculum, direction, and purposes 18 times. In each and every case, the examination and recommendations were guided by purposeful research and evaluation.

Supportive public policy did and will continue to have an impact on the continued success of the program. The current tuition rate charged to FBM students is 28% lower than the rate charged to traditional students. The State of Minnesota provides approximately \$250 of subsidy, and in return receives nearly \$5,000 of additional taxable revenue annually from each FBM student enrolled (Joerger, Ipe, & Persons, 2000). Joerger and Murray (1999) also state, "Farmers pay a substantial amount of taxes that are used for paying our government and education programs. Not unlike other citizens, farmers are entitled to access lifelong learning." (p.8)

There are a variety of farmers enrolled in the FBM programs across Minnesota. The average student depicted from statistics in the 2000 Faribault Area FBM Annual

Analysis summary manages assets totaling over \$1,089,571 and liabilities of under \$427,024. Their average farm profit is \$77,073 with net farm income of \$50,489. They own 232 acres and operate a total of 509 acres. The average dairy farmer milks 97 cows with annual production of 19,358 pounds of milk. The average hog producer marketed 403,780 pounds of pork (Wertish, Oraskovich, & Kuntz, 2001). John Murray, program director for Management Programs in MNSCU, stated that 80% of the 20% of Minnesota farms that gross over \$100,000 in sales are enrolled in the FBM program (Personal Communication, October, 31, 2001).

The FBM instructor is the key to a quality program. The ideal FBM instructor should have good analytical skills, business operational skills, knowledge about farming and management, team building skills, strong communication skills, intuition, innovation, trustworthiness, and a knowledge about how an adult learns (Christensen 2002). They must also situate learning in the context of its real-world application, provide in-depth understanding of a concept or issue, become a coach and mentor rather than a dispenser of knowledge, and engage students in exploration, inquiry, problem solving, and reflection (Brown, 1999). A FBM instructor needs to understand that adult development is considered to be the transformation of an individuals existing knowledge to construct new knowledge as well as the reinforcement of existing knowledge (Billett, 1998).

As the new century unfolds, students will be affected by the choices and activities of policy makers, administrators, researchers, and FBM instructors. If the Minnesota FBM Education Program continues to exercise visionary practices, it will
remain a vibrant and essential institution to serve the industry of agriculture for years to come.

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Implications

The MnSCU Farm Business Management Program can remain a vibrant and effective institution for individuals who choose to develop critical knowledge about their farm business and the world around them. The MnSCU program will need to be modified in the next few years to adapt to the changing needs of its clients and much has already been addressed through development of a strategic plan (please see Appendix H) that will lead FBM into the 21st Century (Christensen, 2002). A key recommendation from that plan is defining who the current FBM customer is. Traditionally only owner/operators of farms were considered our customer, now any individual in a position to make managerial decisions that affect the farm or agricultural business will be allowed to enroll in Farm Business Management Education programs.

Joerger, Ipe, and Persons (2000) uncovered valuable information while investigating the nature and effectiveness of the Minnesota FBM Education Program in 2000. In addition, they recommend that stakeholders should make conscious efforts to react to the conditions that lie ahead. A primary concern is the need to establish systematic strategies and programs to identify and prepare individuals to replace the 30 FBM instructors that will retire over the next 7 years. In the past we simply relied on the local high school agriculture instructor to transition into that role. This was a natural and sequential career path for many successful high school agriculture instructors. The profession cannot rely on that occurring routinely into the future for two reasons. First of all, recent undergraduates with degrees in Agriculture Education from the University of Minnesota no longer complete any coursework in adult or farm business management education. That part of the required curriculum at the University

of Minnesota was dropped in the mid 1990's due to increased secondary licensure requirements. Secondly, high school instructors and FBM instructors don't share teaching responsibilities as they did in the past. The MnSCU merger of 1995 required that all FBM instructors become full time FBM educators without any shared instructional responsibilities with high school programs.

The implication is that a systematic FBM teacher preparation model should be implemented that will build awareness and prepare individuals to enter the profession as a FBM instructor. Currently, licensing of FBM instructors comes under the legal authority of the MNSCU Board of Trustees Licensing Unit. This body is entrusted to develop and conduct the licensure process for all instructors within the MNSCU system. The applicant must meet all of the designated educational and occupational licensing requirements. They must meet some of the Teacher Education Series and certify paid occupational experience of at least 2,000 hours within the last five years. At the end of two years they must have completed three semester credits of TES, and by the end of five years completed all of the TES coursework. They could avoid completing the TES if they currently hold a valid Vocational Education Degree from an accredited institution. At this time a five-year license is granted (MnSCU 1998).

Newly inducted FBM instructors are being encouraged to participate in the Minnesota FBM Professional Excellence Program. This special project is a cooperative effort of MNSCU, University of Minnesota AFEE, and the Minnesota Association of Agricultural Educators. It was launched in the fall of 2001 in response to the practice inducting 13 new instructors in the field. The project is a partnership effort designed to provide professional, personal, and instructional support and assistance to beginning

Minnesota FBM instructors. Newly inducted instructors are assigned an experienced FBM instructor as a mentor. This project is now in it's second year and has provided an invaluable experience for these new instructors.

The institutions (MnSCU and the University of Minnesota) that are entrusted with teacher preparation and licensure need to focus on developing the professional teacher. The professional teacher is one who learns from teaching rather than one who has finished learning how to teach. They understand that the job of educating as developing the capacity to inquire sensitively and systematically into the nature of learning and the effects of teaching (Hammond, 2000). The teacher cannot discover these skills overnight; they are the results of a longstanding career in the profession. Hammond (2000) suggests that professional teachers look beyond their own action to appreciate the understandings and experiences of their students, and evaluate these in light of their self-developed knowledge influencing development and learning. They grow wiser about the many ways in which learning and teaching interact. This truth claim is even more valid for the adult learner who is continually acquiring knowledge about the world around them.

The existing licensure procedures that are governed by MNSCU do little to prepare an FBM instructor to become a teacher of excellence. Ideally, an effective model for FBM instructor preparation could involve a three to five year process and include the following components:

Year 1

• Intern six months in an existing FBM program

- Enter a Masters Degree program with coursework in androgy of the adult learner, financial measures, history/philosophy of FBM education, accounting software, and analysis software
- Initial licensure as an Apprentice Teacher of FBM

Year 2

- Continue with course work in principles of sales, principles of research, commodity marketing, and interpersonal relations
- Receive licensure as a Teacher of FBM

Year 3 to 5

- Continue with course work in management accounting, action research, and international perspectives
- Define topic for an integrating paper or thesis, and progress towards fulfilling the final requirements of the Degree in Masters of Education
- Five year license granted as a Master Teacher of FBM

MNSCU could easily adopt this model for the unit of FBM instruction. It certainly has more expectations for professional development and retains the integrity of the initial, 2, and 5-year licensing requirements. This model could set minimum standards for training FBM teachers of excellence in Minnesota. It promotes a vision of teaching for a lifetime in the practice (Steffy, Wolfe, Pasch, & Enz, 1998). This model would meet the professional training required needed for the practice of the future and more important, the dynamic needs of the future customer of the Minnesota Farm Business Management Education Program.

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Appendix A

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1

Veterans Farmer Training Program Course of Study

CLASS SUBJECTS AND ACTIVITIES

FARM MANAGEMENT

- 1. Setting goals and objectives.
- 2. Record keeping.
- 3. Economic principles affecting farm management decisions.

ANIMAL SCIENCE

- 1. Animal care.
- 2. Breeding.
- 3. Productivity.

FARM MECHANICS

- 1. Selection and maintenance of farm equipment.
- 2. Repair and service of farm equipment.

SOILS AND AGRONOMY

- 1. Soil and its ability to produce.
- 2. Fertilizer use and chemical treatment.
- 3. Plant growth and productivity.

AGRICULTURAL ECONOMICS

- Financing of farm operations.
 Marketing farm products.
- 3. Purchasing farm supplies.

RELATED SUBJECTS

- 1. Factors affecting farm management and operations.
- 2. Application of course work to individual farm operations.
- 3. Tax accounting.
- 4. Computerized farm record analysis.

THIS IS A THREE-YEAR PROGRAM

Appendix B

Suggested Program of Work by Months for an Adult Class in Farm

Management

7

7

Henrik J. Aune (1953)

January

Meeting topics using farm management information.

- 1. Outlook for 1954 supply and demand for farm products.
- 2. Calculating and evaluating a net worth statement.

Meeting topics on timely farm problems.

- 1. Feeding laying hens.
- 2. Sources of credit and credit needs.

Farm management material which might be assembled.

- 1. Summary of inventories and net worth statement.
- Productive livestock units per 100 acres, total work 2. units and work units per worker to use as a starting point in planning classroom instruction and onfarm assistance.

Current farm record data of value to the farmer.

- 4. Present status of farm business to use as a basis for planning any changes using outlook information.
- 5. Current profitableness of poultry enterprise to use as a guide in ordering chicks.

Items of interest for on-farm assistance.

- 1. Completeness and correctness of inventories.
- Accuracy of regular entries.
 Implications of net worth statement.
- 4. Practices in weighing and recording feed used.
- 5. Importance of early chicks.
- Supply of feed. 6.

February

Meeting topics using farm management information.

1. Planning a profitable cropping system.

Meeting topic on timely farm problems.

- 1. Lamb Feeders' Day at the West Central School and Station.
- 2. Recommended varieties of farm crops.

Farm management material which might be assembled.

- 1. Index of crop selection for previous year and
- proposed index of crop selection for current year.
- 2. Index of crop yields for previous year.

Current farm record data of value to the farmer.

- 1. Seed needs utilizing information from inventory and acreages from farm map.
- 2. Fertilizer needs utilizing record of field treatment and acreages from farm map.

Items of interest for on-farm assistance.

- 1. Uses of a farm map in planning the cropping program.
- 2. Planning the crop rotation.
- 3. Implications of the index of crop selection.
- 4. Recommended crop varieties and seed supply.
- 5. Management practices in the care of small pigs.
- 6. Care of the sheep flock.

March

Meeting topics using farm management information.

- 1. Organizing a profitable livestock program (choice of livestock, livestock intensity, and feeding efficiency).
- 2. Planning farm machinery and equipment needs.

Meeting topics on timely farm problems.

- 1. Spring swine management problems and use of synthetic sow's milk.
- 2. Pasture planning and management including plans for a renovation demonstration in the fall.

Farm management material which might be assembled.

1. Feed costs and returns from fall pigs.

Current farm record data of value to the farmer.

- 1. Pasture needs based on pasture available as shown by farm map and livestock requiring pasture as shown by inventories.
- 2. Machinery repairs and purchases based on inventory data.
- 3. Feed costs and returns from fall pigs to be used as a guide in planning next fall's farrowing.

Items of interest for on-farm assistance.

- 1. Completeness of feed records.
- 2. Accuracy and completeness of entries.
- 3. Possibilities in a sow testing program.
- 4. Cleaning and treating of seed and inoculation of legumes.
- 5. Preparation of brooder house.

April

Meeting topic using farm management information.

1. Using the thermometer chart in evaluating a farm business.

Meeting topic on timely farm problems.

1. Brooding and rearing of chicks.

Farm management material which might be assembled. 1. Map of farmstead.

Current farm record data of value to the farmer.

1. Inventory of livestock and machinery on hand for local assessor.

Items of interest for on-farm assistance.

- 1. Accuracy of livestock numbers, including record of births and deaths.
- 2. Pasture management practices.
- 3. Care of growing pigs castrating, worming, and vaccinating.

May

Meeting topic using farm management information.

1. Importance of feed records and instructions on crop and feed check.

Meeting topic on timely farm problems.

1. Farm work simplification.

Farm management material which might be assembled.

- 1. Litter data on spring pigs.
- 2. Lamb crop and wool produced per ewe.
- 3. Summary of barn feeding season on dairy.

Current farm record data of value to the farmer.

- 1. Record of payment of real estate tax.
- 2. Record of wool produced per ewe and lamb crop as an aid in selection of ewes.

Items of interest for on-farm assistance.

- 1. Acreages of crops, seed used and fertilizer applied.
- 2. Value of mid year feed check.
- 3. Weighing pigs at 56 days.

Meeting topic using farm management information.

1. Discussion of litter data and sow testing program.

Meeting topic on timely farm problems.

1. Haying and haymaking practices.

Farm management material which might be assembled.

1. Mid year crop and feed check as of June 1.

Current farm record data of value to the farmer.

1. Midyear crop and feed check and midyear inventory as a check on feeding program.

Items of interest for on-farm assistance.

1. Needed adjustments in feed check.

2. Completeness of farm map record.

3. Spraying to control weeds.

July

Meeting topic on timely farm problems.

1. Station Day at West Central School and Station.

Farm management material which might be assembled.

1. Yield data on alfalfa hay.

Current farm record data of value to the farmer.

Items of interest for on-farm assistance.

- 1. Checking completeness of entries in account book, including numbers of livestock, farm produce used in the house and any yield data.
- 2. Culling poor ewes before short pasture season.
- 3. Planning late summer pasture supply and management.

August

Meeting topic on timely farm problems.

1. Pasture renovation demonstration.

Farm management material which might be assembled. 1. Yield data on small grain.

Current farm record data of value to the farmer.

1. Feed costs and returns from the laying flock as a guide in determining the number of pullets to house. Items of interest for on-farm assistance.

- 1. Comparison of crop varieties in field and results of any fertilizer program.
- 2. Yield data on small grain.
- 3. Selection of gilts and ewes on basis of testing program.
- 4. Calculation of breakeven points on spring pigs.

September

Meeting topic on timely farm problems.

1. Livestock Day at the West Central School and Station.

Farm management material which might be assembled.

- 1. Index of crop selection for current year.
- 2. Feed costs and returns on spring pigs.
- 3. Feed costs and returns on spring lambs.

Current farm record data of value to the farmer.

- 1. Livestock numbers and available feed supply as a guide in purchasing needed feeds.
- 2. Feed costs and returns from sheep to be used in planning breeding program for sheep.
- 3. Feed costs and returns from pigs, spring farrowing data, and outlook information to be used in planning and the following year's pig crop.

Items of interest for on-farm assistance.

- 1. Yield data of small grains and results of fertilizer program.
- 2. Preparation of laying house, culling, and housing of pullets.
- 3. Balancing available feed with livestock.
- 4. Planning sheep and swine breeding program.

October

Meeting topic on timely farm problems.

1. Corn and Soybean Day at the West Central School and Station.

Farm management material which might be assembled.

- 1. Summary of chick data.
- 2. Summary of pullets housed.
- 3. Yield data on soybeans.

Current farm record data of value to the farmer.

- 1. Record of soil testing program on farm maps as a guide in current soil testing program.
- 2. Pasture plans for following year as a guide in repairing or building needed fences.
- 3. Record of payment of second half of real estate taxes.

Items of interest for on-farm assistance.

- 1. Checking account book for livestock numbers and completeness of entries.
- 2. Collecting soil samples for soil testing.
- 3. Flushing sows.
- 4. Repairing and improving livestock housing facilities.
- 5. Practicing sanitary milk production.

November

Meeting topic using farm management information

- 1. Housing and ventilation requirements of livestock and poultry.
- 2. Management factors influencing returns from the laying flock.

Meeting topic on timely farm problems.

- 1. Insulating and ventilating farm buildings.
- 2. Feeding the laying flock.

Farm management material which might be assembled.

- 1. Feed costs and returns from turkeys.
- 2. Litter data on fall pigs.

Current farm record data of value to the farmer.

1. Farm map and crop data in planning an improved crop rotation.

Items of interest for on-farm assistance.

- 1. Checking yield data, and feed records.
- 2. Care of dairy calves.

December

Meeting topic using farm management information.

- 1. Taking the farm inventory.
- 2. Management factors influencing returns from the dairy herd.

Meeting topic on timely farm problems.

- 1. New developments in feeding.
- 2. Feeding and management of the dairy herd.

Farm management material which might be assembled.

- 1. Index of crop yields.
- 2. Per cent of fall freshening.

Current farm record data of value to the farmer.

- 1. Records of receipts and expenses to make a trial run on income tax.
- 2. Records of receipts, and expenses and depreciation schedule for filing estimate on income tax.

Items of interest for on-farm assistance.

- 1. Closing inventories measuring of bins, number and value of animals, trades of machinery.
- 2. Management of sows during gestation.
- 3. Care of fall pigs.

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Appendix C

Examples of Plans of Procedure for an Adult Class in Farm Management

Henrik J. Aune (1953)

Examples of Plans of Procedure

A Group Meeting

Topic - Keeping complete and accurate feed records.

I. Situation.

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- A. In general, feed records have not been kept.
- B. Keeping of feed records believed to be too much work.
- C. The extent of feed costs for the different enterprises is not now known.
- D. The group of farmers is anxious to get as much use of the records as possible.
- II. Purposes.
 - A. To develop an interest in keeping adequate feed records.
 - B. To illustrate the relation of the feed costs to the total costs for each enterprise.
 - C. To illustrate aids in making feed records easier to keep.
- III. Teaching procedure.
 - A. Preparation.
 - 1. Learn what group already knows about feed costs and feed records.
 - 2. Explain importance of accurate feed records.
 - a. Feed cost is the largest single cost (hogs, feeder cattle, and feeder lambs -75 to 90%; sheep - 50%; and dairy and poultry - 50-55%).
 - b. Feed costs are necessary to measure the profitability of an enterprise.
 Illustration of actual feed costs and returns from annual summaries will be of value to explain this item.

- c. Livestock provides the market for feeds and they must be able to pay for feed as well as costs of shelter and management. Feed records will show if the livestock on that farm are a satisfactory market.
- d. Feeding returns are influenced by economy of rations, rates of production and feed wasted.
- B. Presentation.

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- 1. Explain how to keep feed records.
 - a. If feeding is quite uniform, weigh once a month for each class of animals and multiply by number of days in the month.
 - b. Where possible have separate bins for each class of animals.
 - c. For purchased feeds that are used for one class of animals, list all of these purchases in one section of the feed bought pages.
 - d. For silages and roughages that are fed to several classes of animals, weight the amount fed in one day and multiply by the number of days in the month. Another approach is to arrive at the proportion fed to each class. Multiplying the amount which disappeared for the period by the correct proportion will give the amount fed to that class of animals.
- 2. Explain procedures to check out the crops and feeds.
 - a. First essential is accurate inventories and accurate yields of crops harvested.
 - b. If feeds are weighed, inventories and yields should be corrected to standard weights per bushel.
 - c. Feeds should be checked at least twice a year. Once about June 1 when the inventories are the lowest and again at the end of the year.
 - d. Feed available is arrived at in the following way: purchases plus be-

ginning inventory plus feed raised minus sales minus seed used minus ending inventory equals total available for feed.

- e. Prices used in arriving at the feed costs should be based on average market price for the feeding period or at cost for the feeds purchased.
- 3. Possible ways to present the topic.
 - a. Group discussion led by the instructor.
 - b. Panel discussion by farmers with experience in keeping feed records.
 - c. Guest speaker or information specialist.
 - d. Combination of the above.
- C. Application.
 - 1. Encourage group to begin keeping feed records on their own farms.
 - 2. Illustrate various calculations.
- D. Follow-up.
 - 1. Explain and assist the farmers in calculating yields and inventories as part of on-farm assistance.
 - 2. Assist in completing feed records.
 - 3. Periodically check accuracy and completeness of feed records.
- IV. References and teaching aids.
 - A. Boss and Pond Modern Farm Management. P. 343.
 - B. Hopkins Farm Records. p. 30 39.
 - C. Reports of Southwest Farm Management Service.
 - D. D.H.I.A. summaries.
 - E. Minnesota Farm Account Book.
 - F. Crop and Feed Check sheets.

G. A thermometer chart of a farmer with low feeding efficiency.

A Field Trip

Topic - A tour to a well organized farm.

- I. Aims and Purposes.
 - A. To develop interest in the correct organization and operation of a farm.
 - B. To show what one farmer with an interest in and appreciation of the possibilities in farm management can do with limited facilities.
 - C. To illustrate correct crop and livestock practices.
- II. Plan of procedure
 - A. Arranging for the field trip.
 - 1. Obtain permission from the farmer to use his records and to bring the group to his farm.
 - 2. Set a date convenient both to the farmer and to the group.
 - 3. Arrange for transportation.
 - B. Preparation of the group (either before leaving on the trip or as soon as everyone arrives at the farm).
 - 1. History of farm and number of years present operator has been on farm.
 - 2. Progress of farmer in improving the organization and operation of his farm as shown by the thermometer charts from the past three years of records.
 - 3. Efficiency of farmer in various enterprises as shown by feed costs and returns.
 - 4. Items of interest to be observed on this farm.
 - C. Parts of the trip.
 - 1. Buildings and equipment.

- a. Present facilities and equipment very modest and even sub-standard in the average operator's point of view.
- b. Improvements have been made on house and a new loose housing barn being planned.
- c. Small crop acreage has limited need for extensive inventory of machinery.
- 2. Livestock management practices.
 - a. Dairy proper feeding, artificial breeding, proper milking practices, production records.
 - b. Poultry pullet flock, early hatched chicks, year around confinement, proper feeding, deep litter, production records.
 - c. Swine alfalfa pasture, selection of gilts using litter records, proper feeding, two litter system, marketing at peak prices, meat type hogs.
- 3. Field management practices.
 - a. High percentage of high return crops (62%-1952).
 - b. Crop yields 140% above average.
 - c. Fertilizer program based on soil tests fertilizing with attachment on planter and side-dressing of corn, phosphate on alfalfa.
 - d. Proper rotation of crops.
 - e. Sound soil management.
- D. Summary and discussion of the field trip with the farmer participating.

A Deomonstration

Topic - Demonstrating the importance of choice of crops in a well planned farm business.

I. Aims and purposes.

- A. To emphasize the influence of choice of crops on the success of a farm business.
- B. To present the basic information relative to choice of crops.
- C. To illustrate that it is possible and practical to strive for an improved choice of crops.
- II. Plan of Procedure.
 - A. Arranging for the demonstration.
 - 1. Study available records to find suitable examples to illustrate the importance of crop choice.
 - 2. Contact the operator of one of these farms for permission to use his records and his farm for the demonstration.
 - 3.. Prepare maps of the farm and other illustrative material.
 - B. Preparation of the group.
 - 1. History of farm and progress of operator.
 - 2. Introductory material on crop choice.
 - a. Classification of crops.
 - b. Basis of classification nutrients produced, per cent protein, cost of producing a unit of digestible nutrients, net return per acre for cash crops and the effect of the crop on the land.
 - c. Relation to earnings table from analysis showing 20% with lowest choice had earnings of \$1305 and 20% with the highest choice had earnings of \$1794.
 - d. Significance of crop choice on this farm the farmer has improved his crop choice each year and has improved earnings each year.
 - C. Demonstration.
 - 1. Using a large map of this farm, illustrate shape and size of fields and soil management problems.

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- 2. Illustrate this farmer's actual current choice of crops and also manner of calculating the index of crop selection.
- 3. Walk with the group over the farm, if possible, to better acquaint them with this farmer's soil management problems.
- 4. Have the group discuss with the operator his present choice of crops on the basis of their observations of his farming program.
- 5. Have each farmer present work out a proposed choice of crops for this farm and discuss these.
- 6. Suggest an ultimate index of crop selection for this farm and point out why it would be possible and practical for this farmer to follow it.
- D. Summary.
 - 1. Review basis for crop choice.
 - 2. Significance of crop choice in relation to earnings.
 - 3. Encourage the farmers present to strive to improve their choice of crops.

On-Farm Assistance

Topic - Marketing of hogs.

- I. Aims and purposes.
 - A. To emphasize the importance of feed costs and feeding efficiency in raising hogs.
 - B. To illustrate how to calculate the price a farmer needs to breakeven on a lot of hogs.
 - C. To show the importance of marketing at the correct weights and at peak prices.
 - D. To show how the account book can be of value in planning hog marketing.

II. Plan of Procedure.

A. Introduction.

- 1. In the discussion of general farm situation, the question of hog marketing would be brought up in connection with the hog enterprise.
- 2. Questions usually arise regarding the weights of the hogs and when the hogs should be marketed.
- B. Presentation.
 - 1. Arrive at an average weight per pig.
 - 2. Determine what the present day selling price would be.
 - 3. From the feed records calculate the total amount of feed consumed to date by this lot of hogs and the value of this feed.
 - 4. Divide this total value by the number of pigs in the lot to get the cost per pig. Also calculate the feed per pig and compare with accepted standards of feeding efficiency.
 - 5. Divide the cost per pig by the average weight to get the cost per hundred pounds of hogs.
 - 6. Since feeds costs are 80% of the total costs in raising hogs, divide the feed cost by 80% to get the amount needed per hundred pounds to cover costs of feed, shelter, labor, interest, insurance, veterinary fees, etc. This figure would be the "break-even" point for this lot of hogs.
 - 7. Discuss immediate outlook, present price trends, and possible costs of any additional gain and arrive at a recommendation regarding the time of marketing.
- C. Summary.
 - 1. Review hog program.
 - 2. Discuss plans and possible improvements for the coming year, such as, time of breeding, type of hog to produce, feeding efficiency, sanitation, and number of sows to breed using outlook information.

Appendix D

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Course of Study in Adult Farm Management

George C. Cochran, Mn Department of Education (1965)

A course outline for a three year program follows: Farm Management I _ Teaching Unit Objectives

- To stimulate the interest of farm families in developing a more profitable farm business and providing a more satisfying family living.
- To demonstrate that earnings vary greatly from farm to farm and that reasons for these variations can be shown through a farm business analysis.
- 3. To stimulate farm families toward a self-appraisal of their farm and home situation and to help them establish measurements of farm family progress.
- 4. To define complete farm and home records and to demonstrate the usefulness of these records.
- 5. To demonstrate the importance of beginning inventories and to teach families how to make and record the initial inventory.
- To teach families a systematic approach for making current entries in the Minnesota Farm Account Book with special emphasis on receipts and expenses.
- To motivate families to keep feed records for each enterprise and to teach a method for keeping them.
- 8. To demonstrate the importance of a good cropping program and to assist families in beginning a systematic plan.
- 9. To teach families how to make a mid-year feed check and to assist them in making it.
- To teach families the technique of checking the accuracy of livestock entries in the Minnesota Farm Account book.
- 11. To teach the importance of accurate crop yield records and a technique for determining and recording these yields.

- 12. To teach the value of managing income to minimize taxes and to teach a procedure for making an income tax estimate.
- 13. To teach the technique of making and recording inventories at the end of the year.
- 14. To teach the technique of completing the crop and feed check and adjusting feed records.
- 15. To teach the technique of closing the Minnesota Farm Account Book for analysis.

Farm Management II - Teaching Unit Objectives

- To teach families to compute and file income and social security taxes.
- To acquaint families with the various methods of measuring farm profits.
- 3. To acquaint families with the various measures of farm business size and to show the relationship between size and earnings.
- To begin families in a general interpretation of a farm business analysis.
- 5. To teach families how to interpret the summary of inventories in their farm business analysis.
- 6. To teach families how to use the farm business analysis to evaluate their cropping programs.
- 7. To show the relationship between size of business and farm earnings.
- 8. To teach families how to evaluate machinery, equipment and building costs, as shown in their farm analysis.
- 9. To teach families how to use their analysis reports to determine relative enterprise efficiencies.

- 10. To illustrate the importance of miscellaneous costs as shown by the farm business analysis.
- 11. To teach families how to minimize taxes through the use of an income tax estimate and careful tax management.
- 12. To close out the Minnesota Farm Account Book and prepare supplementary forms for analysis.
- Farm Management III Teaching Unit Objectives
- 1. To create an awareness in the families that there are differences between good and poor farmers.
- 2. To teach families a method of determining the optimum level of production.
- To teach families the increasing significance of the second year's farm business analysis.
- 4. To teach families how to evaluate their cropping program.
- 5. To teach families how to evaluate the livestock program.
- 6. To teach families how to evaluate their building program.
- 7. To teach families how to evaluate their family labor efficiency.

Appendix E

Course of Study for On-the-Farm Instruction in Farm Management

Eugene V. Francis (1966)

A COURSE OF STUDY FOR ON-THE-FARM INSTRUCTION IN FARM MANAGEMENT AND FARM BUSINESS ANALYSIS

A Collequium Submitted to the Graduate Faculty of the University of Minnesota

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by

Eugene Vanderhoof Francis

In Partial Fulfillment of the requirements for the Degree of

Master of Arts

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April, 1966
OUTLINE OF THE FARM MANAGEMENT PROGRAM OF ON-THE-FARM INSTRUCTION

The following is a brief outline of a planned program of on-thefarm consultation for families enrolled in the Vocational Agriculture farm management program. This outline is developed more extensively in the instructional units that follow in Chapter V.

FARM MANAGEMENT I

I. Contacting the Farm Family.

- A. Introduce yourself and the local farm management program to the farm family.
- B. Plan for a more extensive visit at a later date to discuss the farm management program at greater length.

II. What is a Farm and Home Analysis Program?

A. Discuss the objectives of the farm management program.

- B. Present an overview of the annual farm analysis report.
 - 1. Information contained in the report.
 - 2. Importance of such information for management decisions.
 - 3. Scope and area of the vocational agriculture farm analysis program. The data Distorts a man platential difference as intervention of second
- C. Assist the farmer in taking soil samples or some others.

educational service.

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- III. Setting up good farm records, planning a fertility program.
 - A. Discuss the use of complete and accurate farm records for business analysis and income tax reporting.
 - B. Present information that can be obtained from a detailed

farm analysis report.

C. Plan a fertility program for the coming year based on soil test results.

- IV. Beginning accurate, complete farm records.
 - A. Record beginning inventories of livestock, crops and facilities.
 - B. Instruct the family in the procedure for making a monthly check of livestock numbers.
- V. Cropping Plans Assistance in Record Keeping.
 - A. Project field arrangements, crop plans, fertilizer needs, weed and insect control measures for current year.
 - B. Provide further instruction in keeping farm records more accurately and easily.
 - C. Provide instruction in organizing the Four Year Depreciation Schedule.

VI. Up-dating feed records projecting possible returns.

- A. Complete a quarterly check of feed consumption and disappearance.
- B. Assist the family in recording accurate monthly livestock counts.
- C. Project possible livestock returns.

- 1. Consider production and returns to date.
- 2. Review feed costs.
- 3. Discuss some standards of livestock returns (fig. Return on \$100 of feed, feed costs per cwt. or head, return over feed cost.)

VII. The mid-year feed check - Observing crop progress.

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A. Complete a mid-year check of inventory disappearance and

feed consumption.

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- B. Observe growing crops with farmer.
 - 1. Nutrient deficiency symptoms.
 - 2. Weed control measures.
 - 3. Insect damage.

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- 4. Hay and pasture growth.
- VIII. Recording crop data Soil sampling.
 - A. Check entry of crop data in the Minnesota Farm Account Book.

Acres, yield, seed used, landlord's share.

B. Project a comprehensive program of soil analysis.

- IX. Completing crop data, planning livestock rations.
 - A. Check for the completeness of crop information including yields adjusted for moisture, test weight, shelling per-· 140 centage and value. P & A & Som
 - B. Plan winter livestock rations and feed needs.

and the start as X. Making an income tax estimate - checking the completeness of the Minnesota Fara Account Book.

- A. Assist the family in completing an income tax estimate prior to the year's end. Discuss tax management procedures.
- B. Begin the year-end check on the completeness of the account book. Point up areas that need further work.

FARM MANAGEMENT II

- Completing the farm account book for analysis, completing the XI. the to the income tax return.
 - A. Prepare the farm record book for submission to the area center for analysis.
 - antial analy is a stru B. Instruct the family in the procedures for completing federal Anter States and state income tax reports.
- and the approximate XII. Completing an operating budget - Planning fertilizer, weed and insect control program.
 - A. Project an income expense statement for the coming year.

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B. Outline a weed and insect control program for the farm.

C. Project fertilizer and lime needs based on soil tests.

XIII. Beginning the interpretation of the annual analysis report.

A. An overall look at the individual farm business summary.

- B. Interpret each table to the family as it relates to averages and to the particular farm.
- XIV. Crop costs and returns plotting farm experimental trials.
 - A. Assist the family in an evaluation of their cropping program.
 - B. Assist in setting up fertilizer, chemical, varietal and population trials on the cooperator's farm.
- XV. Evaluating livestock enterprises observing growing cropscompleting a mid-year crop and feed check.
 - A. Use the farm analysis to evaluate the efficiency and profitability of each livestock enterprise on the farm.

B. Assist in the completion of a mid-year crop and feed check.

C, Evaluate the growing crops with the farmer.

- XVI. Analyzing overhead costs determining progress on the yearly budget and checking completeness of the account book.
 - A. Use the farm analysis to analyze some of the costs of operating the farm business.

B. Determine if the estimated income and expense for the year will be realized, as budgeted.

C. Spend some time checking on the completeness of the farm

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XVII. Income tax estimate - Planning the livestock program. A. Prepare an income tax estimate; provide for tax management.

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B. Assist the family to plan the best livestock program for their farm.

C. Look for ways to increase return from each enterprise. XVIII. Completing the farm account book - income tax reporting.

A. Assist the family in summarizing the farm account book for "analysis.

B. Provide instruction in completing income tax reports.

FARM MANAGEMENT III

- XIX. Projecting an operating budget evaluating the net worth structure planning a credit program.
 - A. Assist in the projection of an operating budget for the coming year.
 - B. Help the family to evaluate their net worth and financial position.
 - C. Provide assistance to the family in planning a sound program of credit. Consultation with the lending agency involved is desirable.
- XX. Long range crop and fertilizer plan development of a complete drainage system.
 - A. Assist the family in setting up a long range rotation and fertilizer plan. Consult with the Soil Conservation technician.
 - B. Work with the family and the SCS technician to project a complete drainage system for the farm.
- XXI. Evaluating the farm business.
 - A. Assist the family in an evaluation of their farm business on the basis of two consecutive farm business summaries.
 - B. Complete a cumulative worksheet of the most important factors in the farm analysis that determine financial progress. 106

XXII. - Studying trends - determining strengths and weaknesses.

- A. Assist the farm family to make an intensive study of the strengths and weaknesses of their farm business.
 - B. Determine ways and means to correct weak areas and to capitalize on strong areas
- XXIII. Analyzing crop costs and returns; feed values; new crop. practices.

A. To determine costs and returns from crops.

B. To determine the feed value of each crop - to compare

various harvesting and storage methods.

C. To stimulate thought and discussion of some of the latest developments in crop raising that may have application on

c this farms concerning prochese of additional fores

XXIV. Evaluating the livestock program - planning improvement programs.

A. Assist the farm family to make a thorough study of the livestock

enterprises.

- 1. Compile feed-lot records on feeder livestock.
- 2. Work out the costs other than feed for each enterprise.
- B. Project the most profitable combination of livestock enterprises for this farm.
- C. Plan improvement programs to strengthen returns from each enterprise.
- D. Project a health and sanitation program. Consult with the veterinarian.

XXV. Closing the farm records for analysis - income tax management.

ADVANCED FARM MANAGEMENT

Units to be discussed and developed during fourth and succeeding years of on-farm instruction in farm management. Each of these units will require considerable research and a number

of consultation visits.

XXVI. Developing plans for making the wisest investments in resources, facilities and machinery.

A. Evaluating power, equipment and building costs.

B. Planning machinery and equipment purchases.

C. Studying the factors involved in the construction or remodeling of livestock and storage facilities.

D. Farmstead planning.

A. Farm ownership vs. renting.

B. Decisions concerning leasing of additional acres.

C. Decisions concerning purchase of additional acres.

XXVIII. Developing alternative plans to maximize income.

A. Study present crop and livestock program.

B. Determine areas to be improved.

C. Project alternative possibilities.

D. Determine additional investment.

E. Determine additional returns and expenses.

F. Determine labor load.

G. Compare net returns from each alternative possibility.

Appendix F

Farm Business Management State Curriculum Guide

John Murray (1990)

FARM BUSINESS MANAGEMENT STATE CURRICULUM GUIDE

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Under the direction of

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Program Design

The course of study emphasizes the alternative goals a farm business can establish. Such goals will be within the limitations of available resources of land, labor, capital and management, and will be congruent with those established by the family. The concept of family involvement in instruction is heavily emphasized. The family orientation is extended through individualized instruction carried out in on-site visits to the farm business. The year-round program assures instructional continuity.

Persons participating in the Farm Business Management program are farm business owner/operators at the start of the program and at the end of the program. The program provides instruction oriented toward upgrading of existing skills related to business management.

The program design is structured to provide a sequence of instruction taking the most novice farm business manager from the lowest level of knowledge and skills about business management to application of high level business management skills. However, because of the diverse level of expertise of farm business operators, the program does not grant interim certificates related to mastery of any content area of business management. Instead, a certificate is granted annually for credits completed. This approach enables program participants to complete courses most relevant to their needs.

Participants can continue to enroll in the program and register for courses that are of special interest or which reflect changes in management practices since previous registration.

Program/course matrix

Level 1 - Module 1:		Introduction to Farm System Management Setting Farm System Goals			
FMPL	1811	System Approach to Farm Business Management			
FMGO	1811	System Goal Setting			
FMGO	1911	Directed Study - Goals			
Module	2	Managers Bole in Systems Management			
FMDM	1812	Introduction to Data Management Systems			
FMPI	1812	Manager's Bole in Decision Making			
FMPP	1812	Understanding Public and Private Agricultural Agencies			
Module	3.	Introduction to Farm System Planning			
EMD	1012	Elements of Form Business Planning			
	1013	Accounting for System and Enterprise Planning			
	1013	Accounting for System and Enterprise Planning			
FMCM	1813	Elements of Commodity Market Planning			
Module	4:	Managing a Farm System in the World Context			
FMMS	1814	Elements of Risk Management in World Agriculture			
FMMS	1914	World Agriculture Update			
FMMS	1915	Global Issues			
Level 2 Module	- Farm	System Analysis and Evaluation			
FNTM	1821	Tax Management Principles			
FMAP	1821	Proparation for Farm Business Analysis			
EMD	1921	Using Systems in Total Form Planning			
	2	Summerizing and Improving Form System Data			
	2.				
	1022	Closing the Farm Business Year			
FMDM	1822	Reviewing Generally Accepted Accounting Principles			
FMDM	1922	Maintaining Data Management Procedures			
Module	3:	Implementing the System Management Plan			
FMAI	1823	Farm Business Analysis Interpretation			
FMEV	1823	Farm System Evaluation for Budget Planning			
FMPP	1823	Analyzing and Applying Public and Private Agricultural Programs			
Mandula.					
Module	4:	Analyzing Production Components of the Farm System			
FMAI	4: 1824	Analyzing Production Components of the Farm System Enterprise Analysis Information Interpretation			
FMAI FMEV	4: 1824 1824	Analyzing Production Components of the Farm System Enterprise Analysis Information Interpretation Evaluating Productive Enterprises			

Level 3 Module	- Interp 1:	reting and Modifying Farm System Management Plans Managing Farm System Income
FMFM	2831	Income Projections Using Commodity Market Trends
FMTM	1831	Tax Planning
FMCM	1831	Futures Strategies in Commodity Marketing
Module	2:	Modifying Farm System Data Management
FMAP	1832	Applying Current Procedures for Closing Farm Business Accounts
FMDM	1832	Selecting Alternative Systems for Data Management
FMDM	1930	Special Topics - Data Management
FMDM	1932	Selecting Production Enterprise Control Systems
Module	3:	Interpreting and Using Farm System Data
FMAI	1833	Detailed Annual Farm Business Analysis Interpretation
FMPP	1833	Public and Private Agency Role in Modifying Management Plans
FMAI	1933	Special Topics - Data Interpretation
Module	4:	Using Farm System Data for Farm Business Modification
FMCM	1834	Options Strategies in Commodity Marketing
FMPL	1834	Planning for Enterprise Changes
FMAI	1834	Detailed Farm Business Enterprise Analyses Interpretation
Level 4	F	Queters Trands and Residentians
Module	- ram : 1:	Interpreting Financial Data
FMFM	2841	Elements of Farm Business Analysis Measures
FMFM	2941	Evaluating Farm Business Financial Ratios
FMFM	2950	Special Topics - System Trends and Projections
FMTM	2841	Special Topics - Tax Management
Module	2:	Evaluating Data for Goal Modification
FMAP	1842	Preparing Data for Trend Analysis
FMDM	1842	Refining Record Systems for Accuracy
FMGO	2842	Relating Farm System Goals to Trends
Module	3:	Interpreting Farm System Data for Structural Adjustments
FMA!	1843	Advanced Annual Farm Business Trend Analysis
FMEV	1843	Comparative Farm Business Organizational Structures
FMPP	1843	Relationship of Public and Private Agricultural Agency Programs to
		Farm Business Structure
FMMS	2843	Managing Stress During Farm System Change
Module	4:	Using Trends in Analysis and Planning
FMPL	2844	Elements of Trend Analysis
FMPL	2944	Using Trend Analysis for Farm Business Planning
FMCM	1844	Using Trend Analysis to Plan Commodity Marketing Strategies

Level 5	- Integ	rating Current Information into Farm System Plans				
Module 1:		Farm System Plans and Projections				
FMTM 2851		Tax Management Implications for Estate Planning				
FMPL 2851		System Projections and Investment Planning				
FMPL	2951	Special Topics - System Plans and Projections				
Module	2:	Evaluating and Using Farm System Data in Financial Planning				
FMAP	2852	Data Preparation for Long-Range Farm Business Planning				
FMFM	2852	Examining Alternatives for Farm Business Financing				
FMDM	1852	Refining Data Management System for Use in Farm Business Planning				
FMAP	2952	Special Topics - Preparation for Computerized Business Analysis				
Module	3:	Interpreting System Information for Cash Flow Projections				
FMAI	1853	Advanced Farm Business Financial Planning Analysis				
FMPL	2853	Planning Cash Flow Needs				
FMPP	2853	Incorporating Agricultural Agency Program Data for Cash Flow Planning				
FMPP	2953	Special Topics - Public and Private Agency Programs				
Module	4:	Information and Instruments in Commodity Marketing Management				
FMFM	2854	Using Financial Instruments in Farm System Management				
FMCM	2854	Advanced Commodity Marketing Strategies				
FMCM	2954	Applying Farm Business Analysis Data to Marketing Strategies				
FMCM	2950	Special Topics - Commodity Marketing Plans				
Level 6	- Exam	ining the Context of Farm System Management Plans				
ENTM	2961					
	2001	Current issues in Tax Management				
	2001					
FMLG	2861	Legal Issues in Farm System Management				
Module	2:	Managing a Farm System in the Historical Context				
FMDM	1862	Refining Data Management Systems for Trend Review				
FMEV	2862	Evaluating Significant Farm Financial Progress Trends				
FMEV	2962	Special Topics - Farm Business Evaluation				
Module	3:	Managing a Farm System in the Context of Law and Government				
FMAI	1863	Advanced Farm Business Organizational Structure Analysis				
FMLG	2863	Methods of Farm Business Property Transfer				
FMPP	2863	Impact of Agricultural Agency Programs on Farm System Management				
FMGO	2863	Special Topics - Impact of Agricultural Agency Programs on Setting System				
		Goals				
Module	4:	Managing a Farm System in the Community Context				
FMPL	2864	Utilizing Community Expertise in Farm System Management				
FMMS	2864	Impact of Public and Social Issues on Farm System Management				
FMMS	2964	Applying Farm Business Analysis in the Community Context				

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PROGRAM SPECIFICATIONS

Program Name: Farm Business Management

Program Length: Typical commitment is:

1. Fifteen credits per year of enrollment

2. No maximum number of years of enrollment

Program Type: Certificate

Program
Description:This program enrolls only farm business operators and is designed to increase
farm business operators' knowledge and understanding of the economic and
business principles upon which sound farm business management is based. The
program is delivered with a unique blend of individualized at-the-farm business
and classroom instruction.

Program Level: Post-Secondary

Program Focus: Skill Upgrading

Relationship to
Other Programs:This program has credits common with the other management programs in the
Technical College System. These management programs are Lamb and Wool
Management, Specialty Crops Management, and Small Business Management.
The Farm Business Management program also has credits in common with
agriculture career pre-employment continuous programs offered in the
Technical College System. If an enrollee wishes to access training offered
through other programs, this should be coordinated with the Farm Business
Management Instructor.

Job Titles: Farm Business Operator

Program Goals: Individuals completing this program should be able to :

- 1. Understand the functions of management
- 2. Establish business and personal goals
- 3. Keep accurate and complete business records
- 4. Analyze and interpret business records
- 5. Apply economic principles to management of a business
- 6. Improve business organization and efficiency
- 7. Appreciate effects of decisions on the business
- 8. Understand human resource management fundamentals
- 9. Appreciate the relationship between the individual business entity and local, regional, national and worldwide economic, social, political and physical environments impacting agricultural inputs, outputs and processes.

Farm Business Management Courses

			Credits
Busines	ss Anal	ysis Preparation	
FMAP	1821	Preparation for Farm Business Analysis	1
FMAP	FMAP 1822 Closing the Farm Business Year		1
FMAP	1832	Applying Current Procedures for Closing Farm Business	
		Accounts	1
FMAP	1842	Preparing Data for Trend Analysis	1
FMAP	2852	Data Preparation for Long-Range Farm Business	
		Planning	1
FMAP	2 9 52	Special Topics - Preparation for Computerized	
		Business Analysis	1-3
Farm B	usiness	Analysis Interpretation	
FMAI	1823	Farm Business Analysis Interpretation	1
FMAI	1824	Enterprise Analysis Information Interpretation	1
FMAI	1924	Special Topics - Farm System Analysis	1-3
FMAI	1833	Detailed Annual Farm Business Analysis Interpretation	1
FMAI 1933 Special Topics - Data Interpretation		1-3	
FMAI	1834	Detailed Farm Business Enterprise Analyses	
		Interpretation	1
FMAI	1843	Advanced Annual Farm Business Trend Analysis	1
FMAI	1853	Advanced Farm Business Financial Planning Analysis	1
FMAI	1863	Advanced Farm Business Organizational Structure	
		Analysis	1
Commo	dity Ma	rketing	
FMCM	1813	Elements of Commodity Market Planning	1
FMCM	1 8 31	Futures Strategies in Commodity Marketing	1
FMCM	1834	Options Strategies in Commodity Marketing	1
FMCM	1844	Using Trend Analyses to Plan Commodity Marketing	
		Strategies	1
FMCM	2854	Advanced Commodity Marketing Strategies	1
FMCM	2954	Applying Farm Business Analysis Data to Marketing	
		Strategies	- 1
FMCM	2950	Special Topics - Commodity Marketing Plans	1-3

Data Management						
FMDM	1812	Introduction to Data Management Systems	1			
FMDM	18 13	Accounting for System and Enterprise Planning	1			
FMDM	1822	Reviewing Generally Accepted Accounting Principles	1			
FMDM	1922	Maintaining Data Management Procedures	1			
FMDM	1832	Selecting Alternative Systems for Data Management	1			
FMDM	1930	Special Topics - Data Management	1-3			
FMDM	1932	Selecting Production Enterprise Control Systems	1			
FMDM	1842	Refining Record Systems for Accuracy	1			
FMDM	1852	Refining Data Management System for Use in Farm				
		Business Planning	1			
FMDM	1862	Refining Data Management System for Trend Review	1			
Farm Bu	usiness	Evaluation				
FMEV	1823	Farm System Evaluation for Budget Planning	1			
FMEV	1824	Evaluating Productive Enterprises	1			
FMEV	1843	Comparative Farm Business Organizational Structures	1 '			
FMEV	2862	Evaluating Significant Farm Financial Progress Trends	1			
FMEV	2962	Special Topics - Farm Business Evaluation	1-3			
Financia	Mana	gement				
FMFM	2831	Income Projections Using Commodity Market Trends	1			
FMFM	2841	Elements of Farm Business Analysis Measures	1			
FMFM	2941	Evaluating Farm Business Financial Ratios	1			
FMFM	2950	Special Topics - System Trends and Projections	1-3			
FMFM	2852	Examining Alternatives for Farm Business Financing	1			
FMFM	2854	Using Financial Instruments in System Management	1			
Goals						
FMGO	1811	System Goal Setting	1			
FMGO	1911	Directed Study - Goals	1-3			
FMGO	2842	Relating Farm System Goals to Trends	1			
FMGO	2863	Special Topics - Impact of Agricultural Agency Programs on				
		Setting System Goals	1-3			

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FMPL	1811	System Approach to Farm Business Management	1
FMPL	1812	Manager's Role in Decision Making	1
FMPL	1813	Elements of Farm Business Planning	1
FMPL	1821	Using Systems in Total Farm Planning	1
FMPL	1834	Planning for Enterprise Changes	1
FMPL	2844	Elements of Trend Analysis	1
FMPL	2944	Using Trends Analysis for Farm Business Planning	1
FMPL	2851	System Projections and Investment Planning	1
FMPL	2951	Special Topics - System Plans and Projections	1-3
FMPL	2853	Planning Cash Flow Needs	1
FMPL	2864	Utilizing Community Expertise in Farm System	
		Management	1
Legal			
FMLG	2861	Legal Issues in Farm System Management	1
FMLG	2863	Methods of Farm Business Property Transfer	1
Public a	and Priv	vate Agency Programs	
FMPP	1812	Understanding Public and Private Agricultural Agencies	1
FMPP	1823	Analyzing and Applying Public and Private Agricultural	
		Programs	1
FMPP	1833	Public and Private Agency Role in Modifying	
		Management Plans	1
FMPP	1843	Relationship of Public and Private Agricultural	
		Agency Programs to Farm Business Structure	1
FMPP	2853	Incorporating Agricultural Agency Program's Data for	
		Cash Flow Planning	1
FMPP	2953	Special Topics - Public and Private Agency Programs	1-3
FMPP	2863	Impact of Agricultural Agency Programs on Farm	
		System Management	1

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FMMS	1814	Elements of Risk Management in World Agriculture	1
FMMS	1914	World Agriculture Update	1
FMMS	1915	Global Issues	1
FMMS	2843	Managing Stress During Farm System Change	1
FMMS	2861	Personnel Management in the Farm System	1
FMMS	2864	Impact of Public and Social Issues on Farm System	
		Management	1
FMMS	2964	Applying Farm Business Analysis in the Community	
		Context	1
Tax Ma	nageme	ent	
FMTM	1821	Tax Management Principles	1
FMTM	1831	Tax Planning	1
FMTM	2841	Special Topics - Tax Management	1-3
FMTM	2851	Tax Management Implications for Estate Planning	1
FMTM	2 861	Current Issues in Tax Management	1

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			Cr	Lect	Lab	ОЛ
Elective	Cours	es	_			
AGRI	1800	Applied Agriculture Mathematics	1	1	0	0
AGRI	1810	Introduction to Microcomputers	2	0	2	0
AGRI	1811	Microcomputer Applications in Agriculture	2	0	2	0
AGRI	1812	Spreadsheet Applications in Agriculture	1	0	1	0
AGRI	1813	Database Applications in Agriculture	1	0	1	0
AGRI	1820	Rural Leadership and Communication	З	3	0	0
AGRI	1830	CPR/First Aid	2	1	1	0
AGRI	1840	Pesticides and Environmental Quality	2	2	0	0
AGRI	1841	Pesticide Applicator License	1	1	0	0
AGRI	1842	Rural Ground Water Quality	1	1	0	0
AGRI	2950	Farm Product Selling	1	1	0	0
AGRI	2985	Biotechnology Applications in Agriculture	1	1	0	0
AGBS	2833	Fundamentals of Supervision	2	1	1	0
AGEC	1800	Principles of Agricultural Economics	З	3	0	0
AGEC	1805	Agriculture Business Agreements	2	2	0	0
MEAG	1800	Shop Skills	1	0	1	0
MEAG	1810	Arc and Oxyacetylene Welding	3	1	2	0
MEAG	1820	Small Gas Engines	2	0	2	0
MEAG	1834	Principles of Hydraulics	1	0	1	0
MEAG	1840	Agriculture Machinery Management	2	1	1	0
MEAG	187 0	Soil Conservation and Tillage Systems	2	2	0	0
MEAG	2820	Principles of Agriculture Power	2	2	0	0
MEAG	2860	Farm Electricity	З	1	2	0
MEAG	2871	Land Survey and Measurement	2	1	1	0
SOIL	2808	Soil Maps: Interpretation and Analysis	1	1	0	0

*Courses listed in other State Curriculum Guides.

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Appendix G

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FBM Curricula: Diploma, Advanced, and Marketing Certificates

Semester Conversion

In 1995, the Minnesota State Legislature passed legislation stating that by 1998 all public colleges and universities in the state must be on semester calendars. With this action, the Minnesota State Colleges and Universities, including community and technical colleges, joined the majority of private colleges and universities nationwide that are on a semester calendar.

The Farm Business Management programs started the semester conversion process in May of 1996, with a committee of twelve farm business management instructors and the Regional Deans of Management programs, under the leadership of the MnSCU Director of Management Education.

The resulting benefits of the semester curriculum for farm business management programs are:

- 1. A statewide curriculum with fewer courses, broader course goals and the flexibility to adapt course content to any given area.
- 1. Provides students and instructors longer periods of uninterrupted study offered by a semester calendar.
- 1. Registration, payment of fees, and other administrative activities will be reduced from four times a year to three.

This Farm Business Management semester curriculum includes: an FBM program plan listed by semester and year, course syllabus for each course, and a conversion grid of quarter credit courses that makeup each of the new semester courses.

Farm Business Management Semester Curriculum

AWARD: Diploma

LENGTH: 60 Credits

Program Description:

The Farm Business Management Education Program is concerned with the organization of a farmer's resources in such a way as to assist the family in meeting their family and business goals. Often these goals involve generating new profit. Good management requires a sound knowledge of economic principles because they are the framework for farm operation and organization. Good management ties all sections of a farm business together. It provides a perspective, showing the relationship of all parts to one another, and to the whole farm business. Good management also requires a knowledge of farm practices and agriculture science, as well as new developments in the field. Management must understand various alternatives that can be used in decision making. Farm business management instruction is concerned with the development of a farmer's knowledge of economic principles and with the decision-making process. The object of the instruction is to help farmers apply these approaches or sets of principles to their business in such a way as to meet their goals. For information on these classes, you can contact us by email!

PREREQUISITES: To be eligible for enrollment in Farm Business Management courses a student must be a farm business operator or manager or must secure the consent of the instructor.

FBMT 1211 Introduction to Farm Business Management

This course introduces basic farm business management concepts. Students will study the farm management planning cycle and develop an understanding of its relationship to: family and farm business goal setting, cash and enterprise accounting principles, and tax planning. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 1112 Foundations for Farm Business Management

This course is an overview of the Farm Business Management Program. The student will be introduced to goal setting, self and business assessment, record keeping, and business projections to provide the foundation for personal and business management progress. Current issues affecting business management are an integral part of the course.

Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 1213 Managing a Farm System in a Global Economy

This course assists the students in achieving awareness of development in agricultural policies and practices throughout the world and assessing the impact of these policies and practices on the profitability and viability of their farm business. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 1121 Preparation for Farm Business Analysis

This course will take the student through a step by step procedure to close out a complete year of farm business records. This course will emphasize tax planning, completing inputs to livestock and crop enterprises, and emphasizing cash and liabilities accuracy. A completed business and enterprise analysis will be the course focus. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 1122 Implementing the System Management Plan

This course continues to build on the foundation of farm business management. The student will complete a farm business financial and enterprise analysis. Sound financial record keeping is an integral component. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 1223 Using System Analysis in Total Farm Planning

This course enables study of concepts related to farm business analysis, and exploration of possible implications and/or solutions to these concepts. A systematic method to assess farm business strengths and weaknesses based on the analysis will be used. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 1131 Managing and Modifying Farm System Data

This course will help the student refine their farm business data system and assist them in applying year end procedures for farm business analysis. Students improve accuracy in the following: farm enterprise analysis, tax planning and filing, and cash and liabilities checks. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 1132 Interpreting and Using Farm System Data

This course provides an opportunity for the student to view the farm business and its various components through a number of vehicles such as balance sheets, farm personal and managerial inventories, enterprise reports and historical data. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 1233 Application of Productive Enterprise Information This course describes procedures for applying enterprise information provided by computerized analysis of farm business accounts. Prereq: None. (2C/0 lect, o lab, 2 other)

FBMT 2141 Interpreting and Evaluating Financial Data

This course continues to expand on preparation and evaluation of the farm business analysis. This course provides continued guidance and perfection of business record close out procedures, tax implications of management decisions, and continues to monitor farm business and family goals. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 2142 Interpreting Trends in Business Planning

This course examines whole farm, enterprise, balance sheet, and inventory trends. Current analysis data are compared to historical data in making future farm business planning decisions. Financial ratios are used to indicate the farm financial structure. Prereq: None. (4C/0 lect. 0 lab, 4 other)

FBMT 2243 Using Financial Instruments in Farm System Management This course integrates the application of various financial instruments used in acquiring capital for use in the business and investigates the way in which both earnings and financial progress can be measured. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2151 Strategies in Farm System Data Management

This course will help the student focus on long term strategies necessary to maintain and enhance the farm business and personal future financial goals. The student will complete the year by developing an accurate, usable business analysis. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 2152 Integrating System Information for Financial Planning This course uses farm system information to develop a farm financial plan. Interpretation and analysis of the farm system data will enhance the reliability of the farm plan. The comprehensive farm plan will integrate historical trends, farm and personal goals, financial and enterprise performance of the farm business. Prereq: None. (4C/0 lect, o lab, 4 other)

FBMT 2253 System Plans and Projections

This course enables the combination of concepts for preparing farm system plans and projections, and the interaction of possible implications and/or solutions of these concepts. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2161 Examination of the Context of Farm System Management This course is designed to assist students in preparation of improved farm system management procedures. Students in this course will evaluate several years of an improved farm system analysis. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 2162 Refining Farm System Management

This course is the culmination of activities designed to enable the student to develop and implement a comprehensive farm business strategic plan. The student will use the components of the Farm Business Management Program to develop and support a farm business strategic plan. Prereq: None. (4C/0 lect, 0 lab, 4 other)

FBMT 2263 Evaluating Farm System Programs

This course develops an awareness of individuals and agencies, both public and private, which have expertise available to assist the farm operator to solve farm systems problems. It enables study and application of farm business evaluation concepts, and exploration of possible implications. Exact subject matter and time spent per topic will vary depending on student need, location, and time. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2300 Computer Applications in Farm Management

This course will discuss basic computer literacy, identify commonly used software, and demonstrate the uses of commonly used software. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2325 Ethics in this Business of Agriculture

This course will explore the various ways in which a farm business conducts business and address their proper conduct. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2305 Legal Issues in Agriculture

This course will examine rental contracts, liability insurance, purchase agreements, and farm transfer issues. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2330 Business Math Principles

This course will establish methods in determining inventory, calculating acreages, determining yields, calculating fixed and variable costs, and assist in understanding depreciation methods. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2310 Environmental Interactions in Agriculture

This course will examine a variety of environmental issues related to agriculture and suggested ways in which to address the issues. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2335 Labor Economics and Management

This course will address the use of labor in agriculture, labor work agreements, hired labor tax issues, and the evaluation of labor useage in a business. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2315 Effective Time Management

This course will explore various time management principles and their utilization within the farm business. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2340 Rural Leadership

This course will examine various farm organizations, the USDA, and local political systems. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2320 Family Wellness and Business Relationships This course will study rural health issues and their effects on successful business ventures. Prereq: None. (2C/0 lect, 0 lab, 2 other)

FBMT 2345 CPR and First Aid

This course will assist the student in understanding proper procedures for handling wounds and injuries, and in performing CPR. Prereq: None. (2C/0 lect, 0 lab, 2 other

Advanced Farm Business Management Curriculum

AWARD: Diploma

LENGTH: 30 Credits

Program Description:

Advanced Management Certificate

The Advance Management Certificate is designed to provide education in the areas of: Risk Management, Strategic Planning, and Business Plan Development. The program will primarily be for students who have completed the Farm Business Management program, but are currently involved in expanding, reorganizing, diversifying, and/or specializing their business. A sound record base is necessary for success in this program.

PREREQUISITES: To be eligible for enrollment in Advanced Farm Business Management courses a student must be a farm business operator or manager or must secure the consent of the instructor.

FBMT 3100

Fundamentals: Risk Management

3 Credits

This course is intended to have the student enhance their decision-making skills relating to business risk management. This course will have the student further investigate tools available to their business that would be effective in reducing potential risk for their operation. Emphasis will be placed on having the student research risk management options that will meet their business, family, and personal needs.

FBMT 3101

Applications in Risk Management

3 Credits

This course is intended to have the student apply concepts in financial management that can be used in the development of a business risk management program. The student is to implement risk management tools that will assist in meeting their business, family and personal needs.

FBMT 3110

Fundamentals: Strategic Planning

3 Credits

This course will enable students to identify the elements necessary to evaluate and create a strategic plan for the business. Determining uses for the plan today and tomorrow and developing a plan to locate those team members necessary for strategic plan creation.

FBMT 3111

Applications in Strategic Planning

3 Credits

This course will provide practical application of strategic planning skills. Application skills will be practiced upon and applied to the student's business and business plan.

FBMT 3120

Fundamentals: Business Plans

3 Credits

This course will provide practical application of the business plan. Application skills will be practiced and applied as the student's business plan is prepared and implemented.

FBMT 3121

Applications in Business Plans

3 Credits

This course will provide the necessary instruction to put together and implement a business plan for the farm business.

FBMT 3130

Directed Study: Decision Making

2 Credits

This course will examine the individual, family and farm business decision-making process with emphasis on upgrading and improving decision making resources, tools and skills. Particularly, this course will lead the student to critically analyze information, applications and implications of decision-making as it relates to their own situation. Students will evaluate their own decision making process.

FBMT 3131

Directed Study: Advanced Communications 2 Credits

This course will assist the student in further acquiring and developing a higher level of communication skills. Students will review and evaluate various communication methods and techniques in dealing with and relatingto individuals in both the public and private sector. Students will use this information in formulating aneffective communication method and style. Additional course content may include student initiated or group activities.

FBMT 3132

Directed Study: Technology Issues

2 Credits

This course will deal with experiencing modern agricultural technological changes and determining if they fit into an individual's farming operation.

FBMT 3133 Directed Study: Family Transition

This course provides the opportunity for the student to study the many aspects of farm business and/or family transition, which occur in the typical farm business.

FBMT 3134

Directed Study: Personnel Management

2 Credits

This course will organize skills for effective management of farm employees and agribusiness personnel through development of: handbooks, compensation/incentive packages, individual expectations/evaluations, and team meetings.

FBMT 3135

Directed Study: Enterprise Alternatives

2 Credits

This course will assist those students wanting to make changes in their farm business through enterprise expansion, addition or enhancement. The course will develop a set of procedures for exploring and evaluating alternative choices.

Farm Business Management Marketing Curriculum

AWARD: Diploma

LENGTH: 30 Credits

Program Description:

Agricultural Commodities Marketing Certificate

The Marketing Certificate will provide the education necessary to develop the understanding, knowledge, and skills to market farm commodities. Specific skills include learning the individual marketing options available to producers to market their commodities. Students will also learn how to calculate an accurate cost of production for use in an individual marketing plan. This certificate is designed to have specific classroom instruction along with group seminar discussions and individualized instruction. Contact us by email!

FBMT 1170 Introduction to Farm Commodities Marketing This course is designed to introduce students to the various methods and tools to market farm commodities. (3 C/0 lecture/pres, 0 lab, 3 other)

FBMT 1173 Directed Study – Farm Commodities Marketing This course provides the student with the opportunity to use the various marketing methods and tools. Prerequisite: FBMT 1170. (2 C/ 0 lecture/pres, 0 lab, 2 other)

FBMT 1180 Applying Commodity Marketing Fundamentals This course is designed to teach students to apply the various methods and tools to market farm commodities. (3 C/ 0 lecture/pres, 0 lab, 3 other)

FBMT 1183 Directed Study – Applying Commodity Marketing Fundamentals This course provides the student with the opportunity to apply marketing methods and tools to their individual farming operation. Prerequisite: FBMT 1180. (2 C/ 0 lecture/pres, 0 lab, 2 other)

FBMT 1190 Evaluating Farm Commodity Marketing Tools This course is designed to teach students to evaluate the various farm marketing tools and to select the tool appropriate to the present marketing situation. (3 C/ 0 lecture/pres, 0 lab, 3 other) FBMT 1193 Directed Study – Evaluating Marketing Tools This course will allow the student to implement and use the marketing tools appropriate to the current marketing situation. Prerequisite: FBMT 1190. (2 C/ 0 lecture/pres, 0 lab, 2 other)

FBMT 2170 Monitoring Farm Commodity Marketing Plans This course is designed to teach students to monitor and refine current farm commodity marketing plans. Emphasis will be placed on current market conditions and pricing opportunities. (3 C/ 0lecture/pres, 0 lab, 3 other)

FBMT 2173 Directed Study – Monitoring Marketing Plans This course will provide activities directed toward monitoring and refining the student's farm commodity marketing plan. Prerequisite: FBMT 2170 (2 C/ 0 lecture/pres, 0 lab, 2 other)

FBMT 2180 Strategies in Farm Commodity Marketing This course is designed to help students plan marketing strategies necessary to achieve farm business and personal goals. (3 C/ 0 lecture/pres, 0 lab, 3 other)

FBMT 2183 Directed Study – Strategies in Farm Commodity Marketing This course will help students identify and implement marketing strategies necessary to achieve their farm business and personal goals. Prerequisite: FBMT 2180 (2 C/ 0 lecture/pres, 0 lab, 2 other)

Appendix H

Minnesota FBM Strategic Plan 2002

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DRAFT - Strategic Plan - 6/17/02 - DRAFT

DRAFT - MnSCU Farm Business Management Programs - DRAFT

Vision

Minnesota State College and Universities Farm Business Management education program will be the preferred pathway to educational opportunities and a valued partner essential for farm business self –sufficiency.

Mission

The Farm Business Management education program provides student focused management education to help individuals in a position to make managerial decisions that affect farm or agricultural business managers to achieve their business goals.

Goals

- Quality Management Education- Develop tools and systems to maximize the opportunities for student-centered management education in FBM educational programs.
- Affordable FBM Programs Offer affordable FBM educational programs.
- FBM Program Marketing Create and enhance the awareness that potential students, the public, and the MnSCU System have of FBM educational programs.
- FBM Collaborative Efforts and Partnerships Foster collaborative efforts and partnerships that enhance FBM educational programs.
- **Professional Development** Provide all FBM Instructors with the education, professional development and skill training they need to effectively deliver FBM educational programs.
- Recruitment of New Instructors Develop and implement a systematic process to recruit, prepare, and retain highly motivated, high quality FBM Instructors.
- Consistent Statewide FBM Program Leadership- Maintain and enhance the current state and local FBM leadership.

Customer of FBM Programs

Individuals in a position to make managerial decisions that affect The farm or agricultural business.

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FARM BUSINESS MANAGEMENT STRATEGIC PLAN

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Quality Management Education Goal				
Develo	p tools and systems to maximize the opportunities for	management education in I	BM educational programs.	
Strategies	Steps	Measures	Outcomes Managers	
Focus instruction on student needs.	 Develop student learning needs assessment tools and processes. Develop and implement processes to help FBM Instructors learn how to use students needs assessment tools and processes. 	 Process and tools developed and implemented Frequency with which Instructors uses assessment tools and processes. 	 Revised needs assessment tools and process FBM program advisory committees, 	
	• Use assessment processes and tools to measure student needs and develop and instructional program focused on these needs.		Deans,	
	• Use FBM program advisory committees to identify and affirm FBM students needs.			
Emphasize the use of proven methods of instruction	 Reaffirm proven methods of instruction as listed in the Impact study. Clarify the role that instruction in small, large group, classroom, and conferences play in the overall scheme of FBM instructional techniques and process. 	• Extent to which there is calendar of various instructional activities	• Instructors use an effective balance of different styles of instruction Instructor, Deans	
Develop and use new instructional delivery methods.	 Create a statewide coordinated effort for electronic delivery of FBM courses through methods like distance learning, CD-ROM, and web-based courses. Coordinate statewide development and delivery of FBM electronic instructional delivery methods to enhance classroom instruction. Provide professional development to help Instructors manage electronic and on-line course delivery. Use coordinate efforts to develop and deliver new curriculum throughout Minnesota. 	 Number and type of FBM programs available through electronic delivery. Student and instructor satisfaction with FBM courses delivered electronically. 	 Effective new instructional delivery methods available to Instructors Instructors, State director, Deans 	

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Quality Management Education Goal Develop tools and systems to maximize the opportunities for management education in FBM educational programs.						
Strategies	Steps	Measures	Outcomes	Managers		
	 Make on-line and other electronic (CD-ROM etc.) FBM course materials available in each FBM Region 					
Implement active accrual accounting systems and software packages which will use analysis systems to generate analysis reports for immediate use by the FBM student to improve their ability to manage their farms.	 By July of 2003, training will be made available to FBM Instructors in active accrual accounting. Develop accounting software and interface for FBM Instructors to use with their students by January 2003. By January 2004, all new FBM students will be encouraged to utilize an appropriate active accrual accounting system. 	 Reduction of time committed to analysis preparation. Increase in time spent on management instruction. Extent to which courses are offered. Number of students taking class and using accounting processes 	• Active accrual accounting becomes a key type of accounting taught by FBM programs.	Instructors, Deans		

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Affordable FBM Programs Goal Develop strategies to offer affordable FBM educational programs.						
Strategies	Steps	Measures	Outcome	Managers		
Maintain a state FBM subsidy indexed to MnSCU tuition increases.	 Develop internal and external legislative effort to have state FBM state subsidy indexed to increases in MnSCU tuition. Obtain support of FBM subsidy from the Office of the Chancellor and the MnSCU Board of Trustees. 	• Level of FBM tuition subsidy indexed annually to tuition increases.	• FBM subsidy indexed each year with MnSCU tuition levels.	State director, Deans, Instructors		
Implement the uniform tuition and fee policy recommended by the Management	• Establish statewide committee to develop ways to implement Management Program Task Force recommendations to move toward uniform tuition and fee structure.	• Uniformity of tuition and fee rates	 Uniform tuition and fee rates Better student understanding of program costs and 	State director, Deans		

DRAFT -- For Further Information, Contact John Murray at 507-280-3109 or john.muray@roch.edu - DRAFT

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Affordable FBM Programs Goal Develop strategies to offer affordable FBM educational programs.							
Strategies	Steps	Measures	Outcome	Managers			
Program Task Force in July 1999.			payment processes				
Provide existing and new financial aid,	• Develop statewide committee to look at private funding and scholarship opportunities.	 Amount of private funding and scholarships obtained by FBM programs Amount of public funding and 	• Strong financial aid, grants and scholarships for FBM programs	State director, Deans			
grants, and scholarships to FBM	 Maintain existing financial aid, grants and scholarships for FBM programs. 						
students.	• Obtain new financial aid, grants and scholarships for FBM programs.		• State grants are indexed to Pell				
	• Work to modify the state grant program so that state grants to FBM students are not negatively affected by changes in PELL Grants.	by FBM programs	grants				

FBM Program Marketing Goal Create and enhance the awareness that potential students, the public, and the MnSCU System have of FBM educational programs.							
Strategies	Steps	Measures	Outcome	Managers			
Develop a uniform format for FBM marketing materials that can be used locally, regionally, and statewide.	 Set up a statewide marketing committee to look at statements, issues, and guidelines for marketing FBM. Develop uniform marketing materials and guidelines six months after FBM marketing committee is established. The materials are for use by Instructors by October 2002 and should include marketing CD-ROMS, consistent messages, templates, and a web-site. 	 Marketing committee set up one month after plan adoption Overall use of more uniform FBM marketing materials and messages. Affects of marketing on enrollment Overall awareness of FBM programs and services at a local, regional, and state level. 	• Marketing kit with tools, templates, and targeted marketing pieces to specific audiences like farmers, lenders, processes, etc.	Instructors, State director, Deans			

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Improve awareness of FBM programs at the Office of the Chancellor, the MnSCU system level, and the institutional level.	 Position FBM programs in state, regional, and institutional plans. Make sure FBM programs are included in system-level marketing and materials. Develop and implement processes to make Chancellor and MnSCU Board of Trustees more aware of FBM programs. 	• Awareness of FBM programs at the institutional, regional, and state level.	 Institutional, regional, and state leaders and customers are aware of the FBM programs. 	State director, Deans
	 Make college administration and faculty more aware of FBM programs. 			

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FBM Collaborative Efforts and Partnerships Goal Foster collaborative efforts and partnerships that enhance FBM educational programs.							
Strategies	Steps	Measures	Outcome Managers				
Identify and develop inventory of knowledge, skills, and abilities of FBM Deans and Instructors.	• Develop a resource list of Instructors who are skilled at developing and managing collaborative efforts.	Resource list is completed and known to Instructors	 List of dean and instructor knowledge, skills, and abilities Instructors, Deans 				
Develop and implement processes and structures to share expertise of all FBM Deans and Instructors.	• Appoint committee to develop processes and structures for Instructors and Deans to share expertise amongst themselves.	• FBM Instructors and Deans demonstrate awareness of and use of each other's knowledge, skills, and abilities.	Processes and Instructors, Deans sharing expertise are in place				
Develop statewide resource and referral list of experts in other agricultural and related management fields to provide expertise into FBM programs.	 Identify and develop list of agricultural and other management experts at the University of Minnesota and other organizations that can help FBM programs. Use web-site and other electronic means to share list 	• A list of agricultural and other management experts is available to be consulted by FBM programs	Directory of experts in other agricultural and related management fields State director, Deans				
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FBM Collaborative Efforts and Partnerships Goal Foster collaborative efforts and partnerships that enhance FBM educational programs.				
Strategies	Steps	Measures	Outcome	Managers
Develop local, regional, and statewide collaboration efforts.	• Develop computer/web-based system for collaborative efforts.	• Extent of development of web site to communicate list of skills, knowledge, and abilities	 Computer/web- based system for collaborative efforts in place for use by FBM programs 	State director, Deans, Instructors

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Professional Development Goal Provide all FBM Instructors with the education, professional development and skill training they need to effectively deliver FBM educational programs.					
Strategies	Steps	Measures	Outcome Managers		
Reinstate the FBM full-time program specialist position at the University of Minnesota Department of Agricultural Education.	 Write a joint letter of request to Deans of College of Agriculture and College of Education for recreation of a full-time FBM specialist position. Start position hiring process in a timely manner. Encourage the University of Minnesota to strengthen the existing undergraduate agricultural education curriculum to include a core of FBM courses. 	 Specialist in place and providing professional development services to the FBM programs. University of Minnesota undergraduate agricultural education curriculum includes a core of FBM courses. 	 FBM programs receive regular ongoing training from U of MN University of Minnesota undergraduate agricultural education curriculum includes a core of FBM courses. State director. MAAE, NFRBMEA, MAELC MAELC University of Minnesota 		
Support flexible and innovative professional development activities.	 Devote 50 percent of in-service days at the college- level to FBM professional development and regional meetings. Support the position of a roving FBM substitute instructor to provide Instructors time for sabbatical or leave to pursue professional development. Use CTL grants to find and fund new opportunities 	 Number of in-service programs dedicated to specific FBM professional in-service activities. Amount of professional development taken by 	 Instructors and Deans, Deans have the Instructors skills to teach updated farm business management techniques Deans, Instructors 		

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Professional Development Goal Provide all FBM Instructors with the education, professional development and skill training they need to effectively deliver FBM educational programs.				
Strategies	Steps	Measures	Outcome	Managers
	for FBM professional development.	Instructors and Deans each year.		
Continue to ensure that there are strong FBM in-service topics offered by related professional organizations.	• Continué collaboration with MAAE, NFRBMEA, and others in providing professional development activities.	 Number of in-service programs dedicated to FBM Number of FBM participants in these seminars. 	• Instructors and Deans have the skills to teach updated farm business management techniques	Instructors
Continue to seek professional development opportunities with business and industry.	• Participate in agricultural organizations to development partnerships with business and industry which lead to quality training opportunities with business and industry.	Number of Instructors and Deans that participate in training sponsored by business and industry.	Instructors and Deans have the skills to teach updated farm business management techniques	Deans, Instructors, State director

Recruitment of New Instructors Goal Develop and implement a systematic approach to recruit, prepare, and retain highly motivated, high quality FBM Instructors.					
Strategies	Steps	Measures	Outcome	Managers	
Develop a plan to recruit new FBM Instructors	 Organize committees to develop structured recruitment materials by 2002 summer conference. Review FBM licensure process and qualifications. Develop plan to utilize prepared recruitment materials. Utilize FBM web-site as a recruitment tool and make recruitment materials available on the website. Create more visibility at higher education 	 Number of hits on recruitment pages of FBM web-site Number of recruitment materials distributed. Number of instructor leads received. 	• A well-qualified list of FBM instructor candidates	State director, Deans, Instructors	

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Recruitment of New Instructors Goal Develop and implement a systematic approach to recruit, prepare, and retain highly motivated, high quality FBM Instructors.					
Strategies	Stepsinstitutions for FBM programs and the role of FBM Instructors.Maintain a statewide list of previous FBM instructor candidates who are willing to remain on a list of potential FBM instructor candidates.	Measures	Outcome	Managers	
Utilize coordinated statewide orientation program for new FBM Instructors.	 Continue FBM PEP program. Review TES program by December 2001 Align orientation with TES program. 	• All new FBM Instructors go through two-years of PEP program when they start.	 New FBM Instructors have the skills they need to teach FBM programs 	State director, Deans, Instructors	
Develop a job shadowing program for new FBM Instructors.	 Ask FBM Instructors who are retiring or phasing out to provide early notice of retirement. Seek funding to support job shadowing. Team new FBM Instructors with an experienced FBM instructor who will serve as a mentor. Consider special assignment. 	 Number of new FBM Instructors who are mentored. Amount of funding available for job shadowing for new FBM Instructors. 	 New FBM Instructors have the skills they need to teach FBM programs 	State director, Deans, Instructors	

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Consistent Statewide FBM Program Leadership Goal Maintain and enhance the current state and local FBM leadership structure.					
Strategies	Steps	Measures	Outcome	Managers	
Maintain state director of management education position.	 Meet with Associate Vice Chancellor of Academic Affairs to develop a transition plan for new state director by October 1, 2002. Secure approval for the transition plan from the Office of the Chancellor. Implement the transition plan. 	• State director transition plan developed, approved, and implemented by 2/1/03	State director of management education position remains in place.	State director. Deans, Office of the Chancellor staff, MAELC, MAAE	
Continue current structure of dean of	 Clarify the role of the RDME position. Reaffirm support for continuing identified funding 	Approval of identified funding	• RDME positions are maintained and	State director, Deans, Office	

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Consistent Statewide FBM Program Leadership Goal Maintain and enhance the current state and local FBM leadership structure.					
Strategies	Steps	Measures	Outcome	Managers	
management positions.	for RDME position.		funded.	of the Chancellor staff, college presidents	
Establish an FBM futuring committee	 Meet and report regularly 				

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Steps of Development

• Initial discussion, direction, and steps for development by all FBM instructors occurred at MAAE Conference, July 10, 2001

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• A committee of instructors selected by peers and Deans developed the first draft of strategic plan, October 9 and 10, 2001 for discussion and review.

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- October 15, 2001 through 1/15/02, committee representatives reviewed and discussed the initial draft with instructors in their respective regions for additional input and revisions.
- The committee met January 25, 2002, in St. Cloud to refine the plan and recommended to submit to entire group for approval at MAAE Conference, July 9, 2002.
- State FBM Advisory Committee reviewed and approved the plan at its April 17, 2002 meeting.

Steps to Implement

- FBM Deans and Instructors will review plan and share with advisory committees and other key stakeholders for review and comment by April 1, 2002
- Deans will e-mail their top priorities for immediate work to Peter Scheffert and John Murray.
- Establish committees to develop workplans from the strategic plan and to begin work on the top priorities. Suggested committees are:
 - Marketing;
 - E-Learning;
 - Collaborative Efforts;
 - Recruitment;
 - Futuring; and
 - Accrual Accounting.

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