

V(A). Planned Program (Summary)

Program # 13

1. Name of the Planned Program

Agricultural Business Management

Reporting on this Program

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
601	Economics of Agricultural Production and Farm Management	50%		20%	
602	Business Management, Finance, and Taxation	50%		20%	
603	Market Economics	0%		30%	
604	Marketing and Distribution Practices	0%		20%	
610	Domestic Policy Analysis	0%		10%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2014	Extension		Research	
	1862	1890	1862	1890
Plan	11.1	0.0	4.8	0.0
Actual Paid	17.6	0.0	13.7	0.0
Actual Volunteer	0.0	0.0	0.0	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c	1890 Extension	Hatch	Evans-Allen
597445	0	243846	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
1765590	0	737963	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
583945	0	2664537	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Extension

Minnesota farmers faced a far different economic reality in 2014 than the last few years, with record corn and soybean prices lowered and an increase in crop production expenses and farm rental rates. Sound agricultural business management became even more critical. In the midst of tight profit margins and uncertainty about the implications of the new Farm Bill, the education and support offered by Extension agricultural business management programming in 2014 was especially important.

Major programming focused on maintaining several Extension Agricultural Business programming in 2014. The Ag Business Management team focused on maintaining several long term programs while they educated Minnesota farmers on the implications and new policies of the new Farm Bill. The Agricultural Act of 2014, commonly called the Farm Bill, changes many programs and rules affecting farms. The Extension ABM team developed local and online training and workshops to help farmers make decisions regarding Farm Bill programs. Educational events for crop farmers began at the end of 2014 and continue, and outcomes will be reported in 2015. So far Extension and the Minnesota Farm Service Agency have partnered to conduct 37 meetings with more than 6,500 attendees. Results from Farm Bill education and training for dairy producers are reported in the Outcomes section of this report.

Extension Agricultural Business Management program delivers significant portions of its content through websites and online learning, extending its reach and accessibility. For example two websites provide a wealth of land economic information including landeconomics.umn.edu, which had 8451 visits last year and FINBIN with 14,680 visits. The Farm Transition and Estate Planning programming which was detailed in the 2013 report continues to produce significant action outcomes. Another series of workshops reached 183 farmers. More than 46 percent of them reported that they had completed a business transition and personal estate plan within six months of attending a workshop. Requests for the farm transition estate planning information have come from North Dakota Extension, University of Maine Cooperative Extension, Irish Agricultural and Food Development Authority, and the Canadian Ag Consortium. Another important program reported this year under Outcomes focused on long-term health care planning to protect farm assets.

MAES research to improve the profitability of Minnesota agriculture included studies in risk analysis, and in analysis of regulatory policies to support the stability of agricultural business. Profitability of niche markets like organic dairy was of particular interest to researchers in 2014 along with concerns of broader market trends like successfully transitioning to organic farming. While finding ways to utilize new technologies to increase farm profitability is seen as important to the industry, research is needed to first access the risk/benefit in adopting these technologies.

Research highlights for 2014 include:

- Researchers developing transition guidelines for farmers considering switching to organic hosted three sessions with organic crop consultants, organic inspectors, and organic grain buyers, along with, organic and transitioning farmers. They gathered input from attendees on project plans. Attendee feedback showed weed control, and fertility remain the top concerns for those considering the transition.
- Fourteen e-learning modules along with several organic transition case studies are in development to provide farmers needed information and insights into the benefits and potential pitfalls involved with the transition to organic.
- A recent study completed on farmers transitioning to organic systems identified significant problems facing transitioning and recently certified organic farmers. Overall time requirements, access to capital, current profitability, and cash flow challenges were identified as management problems by survey respondents. Cost and availability of inputs, yields, weed management, and access to land were identified as additional concerns.
- Researchers conducted a study to uncover why a high profit group of farmers was increasing in profit compared to a low profit group. They worked to identify characteristics, practices, and tendencies of the top income group that differ from the rest of farmers studied. One significant difference was the increased likelihood of low income group farmers to have inherited their farm from family while high income farmers had often purchased from family members. A second key finding was that farmers in the high income group spent more time reading farm management educational materials.
- Research on stockmanship training on dairy farms arranged for seven dairy farms in Minnesota and Wisconsin to participate in their study (six of the seven agreed to have video surveillance installed). Video and injury reports pre and post-training will allow researchers to analyze whether stockmanship training decreases injuries for workers, increases cattle flow, and profitability on dairy farms.
- Lameness in horses is among the most important issues for horse owners, and it has a significant economic cost to the equine industry. Researchers enrolled 11 horses in a study on the effects of anti-inflammatory proteins on lameness.
- Researchers have begun a project to assess how the stacking of multiple plant-incorporated-protectants and herbicide tolerant crop traits has affected corn farmers' pest management decisions over the past decade.

2. Brief description of the target audience

Major audiences for this program are Minnesota farm owners, farm families, and farm managers. Audiences also include farm management professionals, rural financial institutions, agricultural leaders, and state and federal policymakers. Other audiences include local Extension educators, regional office directors, farm information line staff, and Minnesota State College system farm management instructors. Other target audiences for research include farmers and researchers interested in crop, livestock, organic cropping systems, food processors, food retailers, food system professionals, policymakers, national and international food and trade analysts, and scholars interested in food systems, rural financial institutions, and micro-finance in institutions and policymakers.

3. How was eXtension used?

eXtension was not used in this program

V(E). Planned Program (Outputs)

1. Standard output measures

2014	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Actual	8127	25931	0	0

2. Number of Patent Applications Submitted (Standard Research Output)
Patent Applications Submitted

Year: 2014
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2014	Extension	Research	Total
Actual	3	14	17

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Number of educational events that deliver agricultural business management content.

Year	Actual
2014	147

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Participants of the Agricultural Business Management (ABM) program workshops/classes and conferences will achieve significant learning gains regarding research-based agriculture business management knowledge and skills. (Target expressed as the percentage of participants who achieved significant learning gains as a result of attending ABM program workshops/classes and conferences.)
2	Participants of Agricultural Business Management (ABM) workshops/classes and conference sessions intended to improve participant agriculture business management practices will significantly improve their management practices as a result of attending the program. (Target expressed as a percentage of participants that significantly changed one or more of their agriculture business management practices as a result of attending workshops/classes and conference sessions intended to improve participant management practices.)
3	Research will provide information to horse owners and industry professionals on new management strategies related to horse diets.

Outcome #1

1. Outcome Measures

Participants of the Agricultural Business Management (ABM) program workshops/classes and conferences will achieve significant learning gains regarding research-based agriculture business management knowledge and skills. (Target expressed as the percentage of participants who achieved significant learning gains as a result of attending ABM program workshops/classes and conferences.)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	100

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Current statistics indicate that one in two people will need some long-term health care in their lifetime and one in ten people will have a nursing home stay of more than five years. Today in Minnesota, the average annual cost of a semi-private nursing home room is \$75,000. Given current Minnesota Medicaid rules, the only way to protect farm or small business assets for long-term health care costs is to purchase long-term care insurance. Not addressing this issue potentially places farm or small business assets at financial risk, especially if the current business operator has an heir that wants to continue the business.

What has been done

Agricultural Business Management educators and specialists offer long-term health care planning workshops. Extension collaborated with two elder law attorneys to develop the content. Six months following each workshop, participants were asked to complete a follow up evaluation to assess changed behavior and find out what actions the participants had taken and the results of those actions.

Results

One hundred percent of participants said they had increased knowledge of the issues and 85.7 percent said they had begun the planning process. They reported the amount of business and personal assets sheltered from long-term health care costs as a result of having a plan in place. The dollar amount they reported, and thus the financial impact of the program effort, was more than \$11 million.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation

Outcome #2

1. Outcome Measures

Participants of Agricultural Business Management (ABM) workshops/classes and conference sessions intended to improve participant agriculture business management practices will significantly improve their management practices as a result of attending the program. (Target expressed as a percentage of participants that significantly changed one or more of their agriculture business management practices as a result of attending workshops/classes and conference sessions intended to improve participant management practices.)

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

The Farm Bill passage in 2014 contained many new policies and directions that farmers needed to absorb to make decisions about their own operations. The Dairy Margin Protection Program was introduced in the Farm Bill and took the place of former Farm Bill programs that related to dairy. The program allows dairy producers to protect a portion of their milk production from declining milk-feed margins. Dairy producers had several decisions they needed to make: whether to sign up or not; if so, how much milk production to protect, and at what margin to protect their milk production.

What has been done

Extension presented 18 meetings across the state in October and November, in addition to online training, in partnership with the Minnesota Farm Service Agency. More than 940 farmers attended these training sessions, representing Minnesota dairy operations with an average of 150 cows.

Results

More than half the participants said they intended to use the information they learned to make decisions regarding the Dairy Margin Protection Program. Estimates of the total gross farm revenue the participants reported they would protect using the tools the training offered ranged from greater than \$2 million to less than \$100,00, with a little more than half reporting \$100,000 to \$500,000.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation
603	Market Economics

Outcome #3

1. Outcome Measures

Research will provide information to horse owners and industry professionals on new management strategies related to horse diets.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2014	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

In Minnesota, the horse industry contributes \$1 billion to the state's economy annually. Hay is likely the most expensive dietary component for adult horses, while pasture represents a more affordable feed option, at approximately one-third the cost of hay.

But pasture feeding raises concerns of overeating and even malnourishment if pasture spaces do not contain a proper mix of forages. Many horse owners are in need of management strategies that restrict pasture intake while maintaining a horse's natural environment.

What has been done

Researchers conducted an experiment to explore the effect of grazing muzzle use and forage type on horse intake. The research team planted 10-by-20 foot plots with different types of grass. They employed four adult stock horses that had been acclimated to wearing grazing muzzles. For two years, the horses were given access to the grazing plot (50 percent of the time with muzzle and 50 percent without). Researchers then calculated the amount of grass the horses consumed. Results showed that grazing muzzles limited horse intake by 30 percent, regardless of the forage species available.

Results

These results will aid horse owners and professionals in estimating forage intake of muzzled horses on pasture, and provide a better understanding of how to optimize forage use in horse diets, translating into economic efficiencies for horse owners, and improved horse health. Results were presented to horse owners and industry professionals through several mediums, including face-to-face Extension horse ownership programs and field days, websites postings, e-newsletters sent to over 3,000 horse owners, and presentations at the 2014 Midwest American Society of Animal Science and American Society of Animal Science meetings.

In total, one million horse owners and industry professionals were reached in Minnesota and throughout the U.S.

4. Associated Knowledge Areas

KA Code	Knowledge Area
601	Economics of Agricultural Production and Farm Management
602	Business Management, Finance, and Taxation

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Public Policy changes
- Competing Programmatic Challenges

Brief Explanation

Goals were met in this program, but the need for education about the farm bill changed the type and amount of programming that was delivered in 2014.

V(I). Planned Program (Evaluation Studies)

Evaluation Results

The results of a 10-year cumulative evaluation of agricultural business management programs in farm transition and estate planning completed in 2014 and showed that 198 businesses in the program had developed and implemented a business transition plan. Two hundred and seventeen businesses had developed and implemented an

associated personal estate plan. When the program results in an orderly plan for transfer of the farm business and personal assets to the next generation, the effect is protected assets. The value of protected assets due to the program is more than \$460 million. This translates into a financial impact of more than \$7,800 per dollar of program cost spent over the ten-years.

Key Items of Evaluation

Tracking the management changes and investments of those who participate in programming helps program leaders understand the financial impact of the program. The financial impact of this program where there is now an orderly plan for transfer of the farm business and personal assets to the next generation is over \$460 million. This translates into a financial impact of over \$7,800 per dollar of program cost spent over the ten-years.