



Empowering Beginning Women Farmer in the Northeast through Whole Farm Planning

Final Report 2009-2012

Executive Summary

With over one million women farmers in the U.S. (one third of all U.S. farmers) and the need for 100,000 new farmers in the next 5 years, the need for beginning women farmer training programs is critical to the success of U.S. agriculture. Moreover, with new women farmers outpacing new male farmers (29% to 4%), there is a particular need for training programs for beginning women farmers. Given that many women farmers (particularly beginning women farmers) feel isolated and not included in traditional training or support services, Holistic Management International (HMI) proposed a beginning women farmer training program to the USDA. In 2009 the National Institute for Food & Agriculture's Beginning Farmer and Rancher Development Program provided 3 years of funding to HMI to teach beginning women farmers in the Northeast about Holistic Management® whole farm planning so they could improve their ability to manage their farms successfully for the triple bottom line of profit, land health, and quality of life and build women farmer to farmer support networks to sustain that success. The primary goals of this 3-year project was to train 270 women in whole farm planning and help them develop whole farm plans as well as build capacity for an ongoing Beginning Women Farmer program in the Northeast.

Evaluation Tools & Data collection

As part of Holistic Management International's 3-year whole farm planning training program, funded by the USDA/NIFA Beginning Farmer & Rancher Development Program, we conducted a retrospective electronic survey of all 270 participants in February 2012. Program Director Ann Adams worked with Program Evaluator Seth Wilner and HMI Director of Research & Development Frank Aragona to determine appropriate survey questions to determine behavior change and outcomes resulting from those behavior changes. Separate survey links were sent to participants from each year of the program so we could determine difference in behavior change and outcomes as related to amount of time of practice (i.e. the Year One participants have had 2 years of practice since beginning the program, while Year Three participants are still in the program and just learning the material).

We received 141 responses to our survey for a 52% response rate. Not all respondents responded to every question. The table below reflects the percentage of respondents who self-assessed themselves as having completed (fully or partially) or modified each of the following aspects of a whole farm plan and have achieved some critical outcomes.

The Program Evaluator, Seth Wilner, recorded and analyzed the data below which demonstrates that we far exceeded the goals of 25% change in behavior and 25% increase in revenue that we had in the original proposal. Based on the evaluation of knowledge change in the following table, we are also well over our 50% of participants achieving knowledge change although the percentage of knowledge change varied considerably depending on the tool we used.

BWF PARTICIPANT BEHAVIOR CHANGE*	Aggregated Percentage	Highest % Achieved in One Year
Developed a Holistic Goal/Whole Farm Plan	93%	97%
Developed a Financial Plan	82%	88%
Developed a Business Plan	78%	86%
Developed a Marketing Plan	68%	74%
Developed a Land Plan	60%	62%
Implemented Biological Monitoring	57%	60%
Developed a Grazing Plan	43%	51%
Increased Network	92%	96%
Experienced Increased Net Income	57%	
Experienced Gross Revenue Increase	35%	
*based on 52% response rate		

Because of changes in evaluation tools to determine knowledge change between Years 1 and 2, there isn't clear data to compare across years. However, the data shows that a high percentage of participants did have a knowledge increase even if the level of change varied across the years due to evaluation tools changing.

Knowledge Change Summary			
Course	% Participants Experiencing Knowledge Change in Year One	% Participants Experiencing Knowledge Change in Year Two	% Participants Experiencing Knowledge Change in Year Three
Whole Farm Goal	94	97	99
On-farm Decision Making	94	85	99
Time Management	97	97	96
Financial Planning	71	95	100
Marketing	19	50	99
Business Planning	84	37	93
Land Planning	71	33	98
Soil Fertility	80	100	90
Leadership & Communication	100	100	100
Planned Grazing	47	56	98

Intended Behavior Change Summary		
Behavior	Year Two	Year Three
Develop a Whole Farm Goal	No data	99
Use Time Management Tools Learned	94	100
Create Financial Plan	No data	98
Create Marketing Plan	73	94
Create Business Plan	100	93
Use Land Planning Tools	85	88
Change Management Practices and/or Monitor to Improve Soil Fertility	51	81
Use Leadership & Communication Tools	100	100
Begin Grazing or Change Grazing Practices	84	71

Comparison Between Intended and Actual Behavior Change		
Behavior	Intended	Actual
Develop a Whole Farm Goal	99	93
Create Financial Plan	98	82
Create Marketing Plan	94	68
Create Business Plan	93	78
Use Land Planning Tools	88	60
Change Management Practices and/or Monitor to Improve Soil Fertility	81	57
Begin Grazing or Change Grazing Practices	71	43

YEAR ONE PARTICIPANTS FINANCIAL DATA*	
Total Gross Revenue Before Training	\$310,000
Total Gross Revenue After Training	\$431,000
Difference \$121,000	39% increase
Average gross revenue /participant before training	\$10,690
Average gross revenue/participant after training	\$14,862
# of participants that experienced gross revenue change	35%
New \$ generated potentially generated over 270 participants/year (2 years after training)	\$1,126,552/year
*Based on 29 respondents	

TOP OUTCOMES REALIZED BY PARTICIPANTS AFTER TRAINING

Social	
Clearer sense of what your farm is managing towards	79%
Improved decision-making	67%
Improved communication on the farm	43%
Financial/Business	
New or improved record keeping systems	62%
Enhanced understanding of your farm finances	62%
Improved ability to articulate goals and objectives of business to others	58%
Clearer sense of how your business is projected to grow in future years	52%
Changes in how you categorize expenses	38%
Improved ability to prioritize land planning investments	35%
Improved ability to incorporate social, environmental, and financial considerations in the plan	35%
Reduced farm expenses	14%
Market	
Improved understanding of your market and how your business fits into these	44%
Improved ability to determine most effective enterprises	42%
Improved ability to discern most appropriate market channels	40%
Improved ability to effectively market products	40%
Environmental	
Improved understanding of your farm's ecosystems	41%
Improved ability to determine appropriate management practices for improved environment	32%
Improved ability to manage animals	29%
Improved understanding of your forage species composition	28%
Increased forage production	22%
Less stress for animals	22%
Longer grazing season	20%

By Year 3 we were able to achieve 90% of participants attending 7 classes and 80% of participants attending 8 classes or more which exceeded our goal of 75% attending 7 classes or more. This was up significantly from Year 1 when we had 70% of participants attending 7 classes or more.

Year 3 Attendance/Graduation Results

State	7 or more classes attended	8 or more classes attended	% at 7 or more classes	% at 8 or more classes	<1 year farming
CT	12	12	80%	80%	3
NY	14	12	93%	80%	8
ME	12	11	80%	73%	8
MA	14	14	93%	73%	0

VT	14	14	93%	93%	0
NH	17	14	100%	93%	4
	90%	82%			

Year 3 Knowledge Change Percentages

Topic	Range of % change in Knowledge	Average % Change in Knowledge	# of respondents
Engage decision makers in goal setting	20-45%	31%	99
Identify farm values	23-45%	29%	99
Utilize specific solutions to time crunches on your farm	20-34%	24%	93
Understand how to develop a whole farm financial plan	18-48%	35%	64
Utilize your skills in developing a farm financial plan	24-46%	22%	64
Determine net worth (balance sheet)	22-32%	26%	64
Get the profit you need from your farm	12-38%	26%	64
Develop a Marketing Plan	16-36%	27%	74
Use financial plan to profitably price products/services	16-40%	22%	74
Use whole farm planning to target customers	22-38%	30%	74
Utilize farm conflict resolution skills	26-32%	29%	64
Understand how to improve on-farm communication	24-38%	30%	64
Prioritize land/infrastructure development/investments	26-42%	32%	62
Assess Ecosystem Health	26-34%	31%	69
Understand indicators of an Effective Mineral Cycle	24-36%	30%	69
Understand how to assess recovery periods (grazing)	34-46%	41%	59
Understand how to determine the number of animals your pasture can support	42-50%	45%	59
Identify your ability to develop a business plan for your farm	23-45%	26%	68

Biological Monitoring Site Key Results

Organic Matter Increase Percentage Range	Plant Type Diversity Increase Percentage Range	Covered Soil Increase Percentage Range	Pasture Productivity Increase Percentage Range	Plant Age Diversity Increase Percentage Range	Bare Soil Decrease Percentage Range	Capped Soil Decrease Percentage Range
21 to 65	50 to 300	300	10	24	38 to 100	100

Program Outcomes

- 270 Beginning Women Farmers trained in whole farm planning in six states (with 82% attending 8 or more of the 10 sessions by Year 3)

- 60 sessions per year to teach the whole farm planning curriculum (24 of which were on-farm sessions)
- 11 Whole Farm Planning Trainers trained to facilitate whole farm planning
- One listserv maintained for 3 years to support communication of participants
- One Beginning Women Farmer conference attended by over 200 attendees with 94% of respondents saying they had learned something new from the conference (based on 41% response rate)
- 15 webinars to support participants and trainers
- 6 state coordinators trained to coordinate program
- 16 biological monitoring sites monitored for changes in biological community or soil due to new farming practices with 10 reporting comparison results showing that 80% resulted in some type of environmental improvement as a result of management practices learned in the program.
- Post session evaluations for each session to determine knowledge change and intended behavior change and yearly retrospective surveys to determine behavior change and outcomes.
- 14 internal articles and 92 web pages referencing this program or participants in this program
- 13 collaborating organizations

Conclusions

Results for the program demonstrate the success of this program at every level due to strong collaborative arrangements and adaptive project management in response to the feedback from participants, instructors, mentors, state coordinators, and project director. While evaluation tools changed over the course of the program to determine the most appropriate data to capture, a clear picture emerged that the women farmers were committed to the program to learn and improve their operations for their own benefit and to be a resource to other women farmers. 92% increased their network and found that to be a valuable part of the program. Moreover, looking at the difference between intended behavior change and actual behavior change we see a pattern that shows: 1) a 6% decrease between intended and actual behavior change for forming and using a whole farm goal, 2) a 15-16% decrease between intended and actual behavior change for developing financial and business plans, 3) a 23-26% decrease between intended and actual behavior change for marketing, land, soil, and grazing planning/monitoring/implementation. However, even with these decreases we met our objectives for changed behavior as laid out in our proposal.

These decreases are a reflection both of the amount of time and focus that is placed on the whole farm goal in this curriculum and the amount of time available to focus on very involved planning processes. These results indicate the need for follow up mentoring for those who have gone through the program to increase percentage of actual behavior change. We were able to do this with our Year 1 participants because they had access to management clubs and additional learning opportunities as part of the remainder of the program. With additional funding for continued programming in the Northeast, we will continue to offer education and mechanisms for tracking behavior outcomes from those learning opportunities.

While this curriculum attempts to cover a lot of topics, it is focused on key knowledge and behavioral changes that will most readily assist farmers being successful on their farms. That focus has resulted in significant behavior changes and attendant results. Further support to assist other farmers in attaining those results would be the next critical step in increasing percentage of farmers in completing behavior changes from the intended behavior changes articulated at the end of classes.