

Final Report

Title:	Sustainable Food Production, Farm Practice and Agripreneurism		
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Program Code: BFRDP**Program Name:** Beginning Farmer and Rancher**Project Director**

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Recipient Organization

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{NO DATA ENTERED}

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Departments

{NO DATA ENTERED}

Non-Technical Summary

This BFRDP project integrates a one year diploma program in Sustainable Food Production, a six to twelve month apprenticeship on a sustainable farm and online courses in agripreneurism. Together, these activities address the following strategic priorities: mentoring, apprenticeship, internship activities; curriculum development; basic livestock and crop farming practices; specific types of practices, in this project, sustainable agriculture; entrepreneurship and business training; and marketing strategies. The project will provide individuals aspiring to farm on a scale-appropriate, sustainable basis with the knowledge, skills and experience necessary to build commercially viable operations. Sustainable farms, borrowing from the Brundtland Commission statement of 1989, are those that meet the needs of their present operation without compromising the ability of future generations of farmers to meet their own needs. This project provides a unique educational opportunity in an emerging field within agriculture. Weighted in practical on-farm experience, the program also employs online learning as a means of equipping prospective beginner farmers with the entrepreneurial skills they will need to start their own farm operations. In addition to launching beginner farmers, this program will develop a set of national skills standards for scale-appropriate sustainable agriculture, recognized by the US Department of Labor. Arising out of the work of the farmer educators and college faculty, these skill standards will formalize the scope and depth of this rapidly growing sector within the U.S. food system.

Accomplishments**Major goals of the project**

The goals of the program are to: Integrate seamlessly the one year sustainable food production diploma program with the extended, in-depth on-farm apprenticeship program. The emphasis of this program is weighted toward hands on experience and leavened by a basic understanding of theory, science, policy and commerce; Develop and pilot credit-bearing online courses in agripreneurism that teach entrepreneurial skills anchored in sustainability principles so that students have the necessary knowledge and skills to build a commercially viable, scale appropriate, sustainable food production operation;

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Create a working association of local Minnesota farmer educators and CAEP host farmers from around the country who can learn from each other so that best practices can be translated into an improved program for beginning sustainable farmers, no matter where they decide to produce food; Develop a set of skills standards for sustainable farmers that will be recognized by the Department of Labor. The objectives of the program are to: Assess and continuously improve the one year sustainable food production diploma program, launching in August of 2010; Within that program, analyze and strengthen the role of the Minnesota-based mentor farmers as classroom and farm-based educators; Refine and renew the holistic resource management (HRM) and permaculture core of the curriculum through research, attendance at conferences and consultation with practicing HRM farmers; Identify and cultivate a network of CAEP host farmers from around the country to collaborate with the Minnesota mentor farmers; Build a high performing teaching community of these farmer educators and mentors through online networking and face to face meetings at conferences; Develop a comprehensive set of online agripreneurism courses; Recruit successive classes of twenty or more students a year into the SFP program; Produce workshops, conference presentations and papers to disseminate findings from this program in order to build foundational knowledge in this emerging field; Develop and maintain a set of industry skills standards for sustainable agriculture that align directly with the educational objectives of the program.

What was accomplished under these goals?

Participants having completed the Sustainable Food Production, Farm Practice and Agripreneurism program demonstrated increased knowledge of the natural and social sciences as well as increased knowledge of sustainability principles, including improved understanding of: the principles of permaculture and holistic resource management; natural ecosystem sustainability relative to farms and food production; nutrient cycling, energy flows, biodiversity and population control; sustainable soil fertility management practices and strategies such as cover cropping, crop rotation, conservation tillage and cultivation, compost production and use, and animal stacking; plant science and forage plant identification; and animal science and the principles of grazing for multi-species animal systems. Participants demonstrated increased knowledge of necessary life skills and improved farm related skills including; artisan food crafts; gastropreneurism; value-added agricultural enterprises; safe tractor and agricultural equipment operation; maintenance of agricultural equipment; livestock husbandry, fencing and animal handling; farm planning; and economic accounting systems and farm marketing techniques. Students changed their eating habits and consciously made efforts to include locally grown food whenever possible in an effort to support local producers and raise awareness of local food systems. Students were required to track their monthly expenses and demonstrated an increased awareness of their spending habits and a recognition that seemingly small amounts of money can be the difference in a beginning farmer being successful or not. Through their writings, students expressed an increased awareness of the role community plays in local food systems, and took action to reach their local community through a number of events, both locally and regionally. Examples of changes in community development springing from the program include: A March, 2010 conference in which more than 300 members of the local community and regional agriculture community participated in a day-long conference sponsored by the project featuring nationally known speakers on sustainable agriculture; an October, 2010 candidate forum where more than 100 community members participated in a discussion on sustainable agricultural issues with candidates for local to national offices; and a January, 2012 Farm Film Event where more than 100 people packed an M State lecture hall eager to talk about local foods and how they can build a better community with agriculture at its center. Ashby High School instructors and staff reported a dramatic increase in students and their families creating some type of homegrown food source, ranging from simple raised garden beds to large garden plots, laying hens, and grass fed cattle. Ashby High School teachers and staff have noticed a dramatic change school-wide in which healthy food choices and concentration on school-wide wellness has become a part of the everyday structure at the school. A new Wellness committee has been formed. Faculty report an increased pride developed by the upperclassmen who have grown produce that becomes part of the school lunch program.

What opportunities for training and professional development has the project provided?

OUTPUTS: The project began in August 2010 with the start of the Sustainable Food Production program in which 20 students, 3 farmer faculty project investigators, farmer partners and the project director participated in classes that included: Principles of Sustainability, Artisan Food and Value - Added Agriculture, Grass-based Livestock Systems, Farm Marketing and Management, Sociology of Agriculture, Farm Ecology, Forage and Crop Systems, Practical Farm Skills, and on-farm internships. In September the SFP students and faculty traveled to Salina, Kansas to participate in the Land Institute Prairie Festival. SFP faculty, project investigators and farmer-partners held monthly meetings to assess and improve the sustainable food production program curriculum, and to discuss pedagogy, recruitment, student progress, skill development, appropriate tools and technology, farm connections, farm transition and succession, industry developments, laws and regulations, profit and nonprofit agriculture organizations, research, outreach, and community development. SFP students, faculty and project investigators made site visits to a variety of practicing small-scale and sustainable farms and agriculture related businesses throughout Minnesota including Blue Bird Gardens, the Dallas Flynn Farm, Harvest Thyme Bistro, Leatherwood Vinegery, Lindig Farms, Lida Farm, Middendorf Farm, Northcroft Farms, Pasture A Plenty, Prairie Horizon Farm, Roers equipment, Snowey Pines Farm, Stone House Farm, StoneBridge Beef, the White Earth Land Recovery Project, and the USDA SWCD

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Wadena, MN office. Students participated in internships on these and other local sustainable farms. SFP students, faculty, project investigators, farmer mentors, along with the general public participated in a day-long conference on sustainable agriculture sponsored by the project. The conference featured recognized sustainable farmers and speakers from across the country including Joel Salatin of Polyface Farms, Bob Jones Jr. of Chef's Garden in Huron, OH, Dave Bartlett of Bartlett Farms in Nantucket, MA, and Linda Halley of Gardens of Eagan in Eagan, MN. In addition to the feature presentations and panel discussions open to the general public, the speakers and presenters met individually with SFP college students and Ashby High School sustainable agriculture students. SFP faculty, project investigators and farmer-partners met with the conference speakers to develop a preliminary industry skills standards list for sustainable agriculture internships and apprenticeships consisting of instruction, practice, and skill validation. This list was refined through correspondence between participants over the next several months. The project investigators and Ashby High School instructors developed a Sustainable Agriculture curriculum which was introduced as a trial semester-long course in the Ashby High School. As part of this program, a 1,080 square foot high tunnel was purchased for the curriculum, which will complement the existing school farm site, including a 40,000 square foot garden, 720 square feet of raised garden beds, a 200 square foot indoor starter room, and a 24 tree apple and plum orchard. PARTICIPANTS: Project investigators included: Greg Smedsrud who was responsible for the overall execution of the project, presenting skillability to conference participants and the farm working group, and the development of the preliminary skills standards; Dr. Sue Wika who was responsible for teaching Sustainable Food Production courses, improving and assessing the SPF curriculum, event organization, and leading the working group of farmer educators; Dr. Tom Prieve who was responsible for teaching SFP science-based courses, improving and assessing the SFP program, and presenting at workshops; Ben Schierer, who was responsible for coordinating and day to day management of the project, conference and event planning, program development through participation in classroom activities and on-farm site visits, and assisting in the development of the Ashby High School Sustainable Agriculture Program; and Dr. Anna Wasescha, who was responsible for overseeing the academic, credit-bearing components of this project and for providing direction related to conferences and outreach. Dr. Wasecha left her position with the college and the project in February of 2011. The farmer faculty SFP instructors include Kent Solberg of Seven Pines Farm, Ryan Pesch of Lida Farm and mark Boen of Bluebird Gardens. The farmer partner working group included investigators, faculty farmers, and Winona LaDuke, founding director of the White Earth Land Recovery Project. Ashby High School agriculture instructor Dustin Steenblock was responsible for the overall implementation, development and teaching of the Ashby High School Sustainable Agriculture Program. Partner organizations involved in this project included the Communicating for Agriculture scholarship and Education Foundation, M State Fergus Falls, and Ashby Public Schools. Conference presenters included: Joel Salatin of Polyface Farms, Bob Jones Jr. of Chef's Garden in Huron, OH, Dave Bartlett of Bartlett Farms in Nantucket, MA, and Linda Halley of Gardens of Eagan in Eagan, MN. Partner farms and agriculture related businesses used in this project as on-site practical learning sites included: Blue Bird Gardens, the Dallas Flynn Farm, Harvest Thyme Bistro, Leatherwood Vinegary, Lindig Farms, Lida Farm, Middendorf Farm, Northcroft Farms, Paradox Farm, Pasture A Plenty, Prairie Horizon Farm, Roers equipment, Snowey Pines Farm, Stone House Farm, StoneBridge Beef, the White Earth Indian Reservation Land Recovery Project, and the USDA SWCD office in Wadena, Minnesota. TARGET AUDIENCES: The Sustainable Food Production, Farm Practice And Agripreneurism program was targeted at individuals aspiring to begin scale appropriate, commercially viable, non-industrial farming operations, regardless of age, educational background, or previous experience in farming. The Ashby High School Sustainable Agriculture Program was targeted at high school juniors and senior with a desire to explore sustainable farming practices and local food systems. Participants participated in formal classroom learning, on-farm practicum, internships, workshops, conferences, seminars, and forums. The general public was included as a target audience for participation in conferences, forums and events, in an effort to change the overall community's view of the role agriculture and local food systems can play in a healthy community. PROJECT MODIFICATIONS: The following changes to this project were submitted on December 18, 2010 and approved by NIFA on February 18, 2011: The original travel budget included funds for transportation and per diem costs for the PD's, partnership working group members and mentor farmers to travel to one national conference and one regional conference. We feel that rather than traveling to a national conference, it would be more beneficial if we were to hold a conference and workshop in Fergus Falls featuring a nationally recognized presenter and speaker. In addition to PD's, partnership working group members and mentor farmers, this will allow students, regional producers, and the general public an opportunity to participate; As a result of the changes in travel and conferences noted above, reduce the number of days from 4 to 2 for each of the 8 farmer mentors of the partnership working group spent working on project evaluation and skill standard development, resulting in a reduction of \$2,000; The CA Foundation will develop a sustainable agriculture curriculum to be implemented in the Ashby (MN) High School. The curriculum will introduce students to the concepts and practices outlined in the original proposal, and will also include a hands-on component through the construction of a high tunnel at the Ashby High School. In addition to classroom learning, the high tunnel will allow students to actually grow and market their products, explore extended and year-round production, as well as stacking and secondary products. The \$9,500 noted above will be used to develop and implement the high school program, along with portions of funds from other areas that align with this component (e.g. participant recruitment, materials and supplies, etc.) In response to the development grant stated goal of capacity building and expanding beginning farmer and rancher training to

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new communities, we feel that it would be more appropriate to delay the creation of the online agripreneurism courses from years one and two to years 2 and 3, and to use the \$5,000 during the development grant period for the development of a local and regional network of sustainable food producers, local food system advocates and consumers, both institutional and individual. The desire is to build capacity and relationships for local food systems, from farm to plate.

How have the results been disseminated to communities of interest?

{NO DATA ENTERED}

What do you plan to do during the next reporting period to accomplish the goals?

{NO DATA ENTERED}

Participants**Actual FTE's for this Reporting Period**

Role	Non-Students or faculty	Students with Staffing Roles			Computed Total by Role
		Undergraduate	Graduate	Post-Doctorate	
Scientist	0	0	0	0	0
Professional	0	0	0	0	0
Technical	0	0	0	0	0
Administrative	0	0	0	0	0
Other	0	0	0	0	0
Computed Total	0	0	0	0	0

Student Count by Classification of Instructional Programs (CIP) Code

{NO DATA ENTERED}

Target Audience**Products**

Type	Status	Year Published	NIFA Support Acknowledged
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Citation

No publications reported this period

Other Products**Changes/Problems**