

**V(A). Planned Program (Summary)**

**Program # 6**

**1. Name of the Planned Program**

Global Food Security and Hunger: Small Acreages and Emerging Specialty Crops

**V(B). Program Knowledge Area(s)**

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
102	Soil, Plant, Water, Nutrient Relationships	40%		20%	
202	Plant Genetic Resources	5%		20%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	0%		20%	
205	Plant Management Systems	30%		20%	
212	Pathogens and Nematodes Affecting Plants	5%		20%	
604	Marketing and Distribution Practices	20%		0%	
	<b>Total</b>	100%		100%	

**V(C). Planned Program (Inputs)**

1. Actual amount of professional FTE/SYs expended this Program

Year: 2010	Extension		Research	
	1862	1890	1862	1890
Plan	2.1	0.0	1.0	0.0
Actual	4.1	0.0	1.7	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
84424	0	51698	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
84424	0	51698	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
156568	0	511242	0

## V(D). Planned Program (Activity)

### 1. Brief description of the Activity

The Global Food Security and Hunger: Small acreages and specialty crops team is made up of 17 faculty members contributing a total of 4.1 FTEs to this project. Team members generated \$64,020 in external grant support and made 7,543 direct teaching contacts. Team members produced five peer-reviewed Extension publications and two articles in professional and scientific journals. The Team has two major areas of focus:

- Small Farms and Specialty Crop Enterprises
- Land Stewardship for Small Acreages

This team was actively engaged in a variety of community-supported agriculture efforts, including development and expansion of farmers' markets, sustainable small acreage farming, backyard poultry, and the "Producer-Chef Connection." Members taught "Living on the Land" classes, collaborated on a multi-state Diversified Agriculture conference, and a Farm-to-Table sustainable food systems conference.

### 2. Brief description of the target audience

Target audiences are established and prospective small acreage, specialty or organic crop producers, processors and marketers, prospective producers interested in growing for direct markets, producers looking to become more economically or environmentally sustainable and to diversify their existing enterprises and marketing. Audiences include small acreage landowners who want to manage their land in a sustainable manner to protect natural resources, some who are also interested in developing small acreage enterprises; and consumers interested in local food and farms who want more information on where to find local food, learn more about organic production and eco-labeling, and are interested in learning more about rural issues.

## V(E). Planned Program (Outputs)

### 1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
<b>Plan</b>	1500	10000	50	200
<b>Actual</b>	4798	7391	247	100

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

#### Patent Applications Submitted

Year: 2010  
 Plan: 0  
 Actual: 4

#### Patents listed

### 3. Publications (Standard General Output Measure)

#### Number of Peer Reviewed Publications

<b>2010</b>	<b>Extension</b>	<b>Research</b>	<b>Total</b>
<b>Plan</b>	0	3	
<b>Actual</b>	5	6	11

**V(F). State Defined Outputs**

**Output Target**

**Output #1**

**Output Measure**

- Small Farms Conference in southern Idaho.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	1	0

**Output #2**

**Output Measure**

- Small Farms Conference in northern Idaho.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	0	1

**Output #3**

**Output Measure**

- Small Acreage Farming Course.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	2	6

**Output #4**

**Output Measure**

- Ag Entrepreneurship Course.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	2	5

**Output #5**

**Output Measure**

- Pasture management shortcourse.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
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2010 2 0

**Output #6**

**Output Measure**

- Living on the Land course.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	3	4

**Output #7**

**Output Measure**

- Living on the Land Tour.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	2	3

**Output #8**

**Output Measure**

- LOTL 5 year report.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	1	1

**Output #9**

**Output Measure**

- Vegetable variety trials.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	4	1

**Output #10**

**Output Measure**

- Specialty fruit crop trials.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	2	1

**Output #11**

**Output Measure**

- Field days at demonstration plots.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	2	2

**Output #12**

**Output Measure**

- Small fruit workshops - Huckleberries, etc.

<b>Year</b>	<b>Target</b>	<b>Actual</b>
2010	1	2

**V(G). State Defined Outcomes**

**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	O: Growers learn about specialty crops varieties appropriate for their area.I: Number attending field days to observe results of crop variety demonstration trials.
2	O: Producers and landowners gain knowledge about natural resource management, sustainable farm production, marketing and/or business management principles and practices. I: Number of participants completing workshops, farm tours, short courses or in-depth courses such as Living on the Land, Stewardship of Small Acreages, Sustainable Small Acreage Farming or Agricultural Entrepreneurship.
3	O: Producers and landowners adopt recommended land management, production and/or marketing practices due to University of Idaho extension programming. I: Number of producers indicating they did (or intend to) adopt recommended land management, production and/or marketing practices after attending an educational class, workshop, one-on-one contact or reading UI information.
4	O: Landowners and farmers achieve success in protecting their natural resources and/or maintaining a successful business.I: Number of past class participants who volunteer to host tours of their farm or speak to new students in classes, workshops or at conferences.
5	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

## **Outcome #1**

### **1. Outcome Measures**

O: Growers learn about specialty crops varieties appropriate for their area. I: Number attending field days to observe results of crop variety demonstration trials.

Not Reporting on this Outcome Measure

## **Outcome #2**

### **1. Outcome Measures**

O: Producers and landowners gain knowledge about natural resource management, sustainable farm production, marketing and/or business management principles and practices. I: Number of participants completing workshops, farm tours, short courses or in-depth courses such as Living on the Land, Stewardship of Small Acreages, Sustainable Small Acreage Farming or Agricultural Entrepreneurship.

### **2. Associated Institution Types**

- 1862 Extension

### **3a. Outcome Type:**

Change in Condition Outcome Measure

### **3b. Quantitative Outcome**

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
2010	50	1345

### **3c. Qualitative Outcome or Impact Statement**

#### **Issue (Who cares and Why)**

Growers and landowners who are trying to be more sustainable by protecting natural resources and operating viable farm businesses need accurate information and guidance on implementing best practices. Partnerships of local food oriented organizations and agencies can help producers and communities by strengthening local food systems through a focused effort of providing resources and information.

#### **What has been done**

The Sustainable Small Farming and Ranching class was taught in Genesee, fall of 2009 including 13 three-hour sessions and 3 farm tours. Fall 2010 class has 18 students who have completed 25 hours of instruction thus far. Small Farm Business planning class with 6 three-hour sessions was taught in Moscow, spring of 2010. A Sustainable Food systems conference was planned organized and delivered by a partnership of eight organizations in Moscow, March 2010.

#### **Results**

Twelve of the beginning producers who took the Small Farm class indicated they have or will develop whole farm management plans. Seven presented their farm plan to the class. Seventeen students taking the Small Farm Business Planning Class indicated they would develop business plans for their farm business. Eight students gave formal presentations on their plans. All survey respondents (34) who attended the Farmers Market workshop increased their knowledge on direct marketing and business planning. All respondents of an online follow up survey of conference participants indicated they had increased knowledge of concepts and practices of sustainable food systems. Many indicated they had followed through on some aspect learned since the conference.

#### 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants

#### Outcome #3

##### 1. Outcome Measures

O: Producers and landowners adopt recommended land management, production and/or marketing practices due to University of Idaho extension programming. I: Number of producers indicating they did (or intend to) adopt recommended land management, production and/or marketing practices after attending an educational class, workshop, one-on one contact or reading UI information.

##### 2. Associated Institution Types

- 1862 Extension

##### 3a. Outcome Type:

Change in Condition Outcome Measure

##### 3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	15	163

##### 3c. Qualitative Outcome or Impact Statement

###### Issue (Who cares and Why)

Many producers and landowners are seeking methods to help increase productivity and conserve natural resources in a way that might promote sustainability for their land and their livelihoods.

###### What has been done

A common goal among all our small acreage and specialty crop programming is to promote ecological economic success for growers and landowners. Workshop and class participants are

regularly asked what practices they plan to implement on their farms.

### Results

Participants who completed evaluations listed at least one practice they planned to implement. For example, using cover crops more regularly in their crop rotations. Living on the Land class participants who learned about soil management and natural landscaping indicated that they planned to make changes to more closely adopt the practices taught in class.

## 4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants

## Outcome #4

### 1. Outcome Measures

O: Landowners and farmers achieve success in protecting their natural resources and/or maintaining a successful business. I: Number of past class participants who volunteer to host tours of their farm or speak to new students in classes, workshops or at conferences.

### 2. Associated Institution Types

- 1862 Extension

### 3a. Outcome Type:

Change in Condition Outcome Measure

### 3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	3	7

### 3c. Qualitative Outcome or Impact Statement

#### Issue (Who cares and Why)

Classes focus on teaching people to protect their natural resources and run successful small farm businesses. Having students who implement practices they learned from our classes and are able to demonstrate that to subsequent class participants or others is one positive indicator of success.

#### What has been done

Students in 2008 Small Farming and Ranching Class are selling at the Farmers' Market. 2010 classes toured the farm operations she owned or managed by previous class participants.

**Results**

Students have adopted practices learned in class and are finding success selling eggs and chickens at our local Farmers' Markets. They shared their experiences with beginning farmers to broaden their understanding of sustainable small farm operations. The beginning farmers learned directly from producers that recently researched and experienced alternative ways to grow and market sustainable, local foods.

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships
202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants

**Outcome #5**

**1. Outcome Measures**

O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

**2. Associated Institution Types**

- 1862 Research

**3a. Outcome Type:**

Change in Action Outcome Measure

**3b. Quantitative Outcome**

<b>Year</b>	<b>Quantitative Target</b>	<b>Actual</b>
2010	1	1

**3c. Qualitative Outcome or Impact Statement**

**Issue (Who cares and Why)**

**What has been done**

**Results**

**4. Associated Knowledge Areas**

<b>KA Code</b>	<b>Knowledge Area</b>
102	Soil, Plant, Water, Nutrient Relationships

202	Plant Genetic Resources
205	Plant Management Systems
212	Pathogens and Nematodes Affecting Plants

#### **V(H). Planned Program (External Factors)**

##### **External factors which affected outcomes**

- Economy
- Populations changes (immigration, new cultural groupings, etc.)

##### **Brief Explanation**

#### **V(I). Planned Program (Evaluation Studies and Data Collection)**

##### **1. Evaluation Studies Planned**

- After Only (post program)
- Retrospective (post program)
- Before-After (before and after program)

##### **Evaluation Results**

During the winter of 2009-2010 I worked with Social Science Research Unit on campus to conduct a survey of all LOTL alumni from 2002-2009. Based on surveys completed by LOTL alumni from 2002-2009 LOTL alumni own or managed over 12,800 acres in eight southwestern Idaho counties, one eastern Oregon county and one eastern Washington county. Fifty-one percent of alumni owned between 1 and 10 acres. Most LOTL alumni are still new to small acreage management with 40% being involved less than five years and 24% from six to ten years. Changes to management practices show that alumni are using the practices and techniques they learned in class. Alumni reported the following changes; 76% changed weed control, 55% changed irrigation practices, 45% changed fertilization practices and 64% changed grazing practices. All of these management changes have positive long-term environmental impacts, including water conservation, improved water quality, improved forage and livestock production and reduced spread of weeds.

##### **Key Items of Evaluation**

Changes to management practices show that alumni are using the practices and techniques they learned in class. Alumni reported the following changes; 76% changed weed control, 55% changed irrigation practices, 45% changed fertilization practices and 64% changed grazing practices. All of these management changes have positive long-term environmental impacts, including water conservation, improved water quality, improved forage and livestock production and reduced spread of weeds.