

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Commercial and Consumer Horticulture

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	20%		0%	
111	Conservation and Efficient Use of Water	0%		25%	
202	Plant Genetic Resources	0%		25%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants	15%		0%	
204	Plant Product Quality and Utility (Preharvest)	15%		25%	
205	Plant Management Systems	20%		25%	
216	Integrated Pest Management Systems	20%		0%	
805	Community Institutions, Health, and Social Services	10%		0%	
	Total	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	10.1	0.0	1.0	0.0
Actual	10.6	0.0	1.5	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
332911	0	52153	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
332911	0	52153	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
428810	0	445634	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The Commercial and consumer horticulture team is made up of 31 faculty members contributing a combined total of 10.6 FTEs to this project. Team members generated \$124,127 in external grant support and made 32,135 direct teaching contacts. Team members produced 13 peer-reviewed Extension publications and six articles in professional and scientific journals. The Team has three major areas of focus

- Master Gardener
- Consumer Horticulture
- Green Industry and Commercial Horticulture Education

The team organized and delivered Beginning Master Gardener courses in 18 locations across the state, including multi county venues and multi-state collaborations with Washington, Oregon, and Utah. Members delivered dozens of classes for Advanced Master Gardeners, nearly 300 horticulture workshops, demonstrations, and seminars for consumers, and 43 educational events for green industry audiences.

2. Brief description of the target audience

The target audience for the Master Gardener program includes members of the public with a high level of interest in horticulture and time and interest in educating others in topics related to landscaping and gardening, such as soils, plant development, fertility, irrigation, plant diagnosis, pest control, etc. The target audience for consumer horticulture is very large, consisting of virtually all Idaho citizens with yards, gardens, or landscapes. The green industry audience consists of owners, managers, and employees of nurseries, Christmas tree growers and other green industry companies.

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	15000	75000	2000	8000
Actual	28840	161544	3295	9746

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

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: 1

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	15	0	
Actual	13	9	22

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Advanced Master Gardener Training Workshop/Tours.

Year	Target	Actual
2010	70	118

Output #2

Output Measure

- Beginning Master Gardener Courses.

Year	Target	Actual
2010	25	18

Output #3

Output Measure

- Consumer Horticulture Education Media Publications/Programs.

Year	Target	Actual
2010	125	247

Output #4

Output Measure

- Consumer Horticulture Education Personal Contacts/Visits.

Year	Target	Actual
2010	15000	24516

Output #5

Output Measure

- Consumer Horticulture Web Site.

Year	Target	Actual
2010	1	10

Output #6

Output Measure

- Consumer Horticulture Workshops/Seminars/Demonstrations.

Year	Target	Actual
2010	220	299

Output #7

Output Measure

- Green Industry Education Workshops/Seminars/Clinics.

Year	Target	Actual
2010	27	43

Output #8

Output Measure

- Master Gardener Volunteer Activities (in Hours).

Year	Target	Actual
2010	15000	23230

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	O: Beginning Master Gardeners will obtain adequate knowledge of horticultural principles to help or instruct other people. I: Marked increase in knowledge as measured by percentage increase in before and after test assessments.
2	O: Consumers have access to appropriate information about horticulture when they need it. I: Number of web site hits.
3	O: Adoption of effective and sustainable gardening practices by trained Master Gardeners. I: Survey-derived self-ranking of the extent of adoption of appropriate principles and practices; self-ranking is on 1-9 scale where 9=fully adopted.
4	O: Improved green-industry access to pest control and product information. I: Number of hits on technical resource center web site.

Outcome #1

1. Outcome Measures

O: Beginning Master Gardeners will obtain adequate knowledge of horticultural principles to help or instruct other people. I: Marked increase in knowledge as measured by percentage increase in before and after test assessments.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	30	52

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Residents demand horticultural information on gardening and landscaping and request help in identifying pests and plant problems. With the large population that Boise and the surrounding county houses, these requests for assistance are in the form of thousands of phone calls and specimens brought into the Extension office.

What has been done

Each year the Master Gardener Program is offered to develop volunteers to assist in answering horticultural questions from city and county residents.

Results

Master Gardeners completing the training program showed an increase in knowledge of 52% (from pre and post exams).

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #2

1. Outcome Measures

O: Consumers have access to appropriate information about horticulture when they need it.
Number of web site hits.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	75000	95080

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Web site visits document both availability and value of horticultural information offered on the web site. It is important to both educators and the public.

What has been done

Web site visits (not just hits, but documented use of information) were accumulated using an auto-count feature in the web site.

Results

The most important impact of this effort is the widespread distribution of educational materials that will influence and educate Idaho's public with regard to proper and sustainable practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems
216	Integrated Pest Management Systems

Outcome #3

1. Outcome Measures

O: Adoption of effective and sustainable gardening practices by trained Master Gardeners. I: Survey-derived self-ranking of the extent of adoption of appropriate principles and practices; self-ranking is on 1-9 scale where 9=fully adopted.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	7	9

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

One of the goals of the Idaho Master Gardener Program is to develop skilled amateur horticulturists empowered to teach and assist the general public. By integrating and adopting sustainable gardening and landscaping practices into their own yards and gardens, Master Gardener Volunteers are better able firsthand to recommend and demonstrate environmentally sound practices to others.

What has been done

We specifically teach a number of recommended sustainable principles and practices in our beginning and advanced courses, focusing on composting, soil health, water use, pest management and overall safety in every aspect of home horticulture. We survey graduating Master Gardeners on their rate of adoption.

Results

100% of Master Gardeners surveyed reported full adoption of the sustainable principles learned through the program. These volunteers then served over 500 individuals in our community over the year, encouraging wider adoption of sustainable practices.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems

Outcome #4

1. Outcome Measures

O: Improved green-industry access to pest control and product information. I: Number of hits on technical resource center web site.

2. Associated Institution Types

- 1862 Extension

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	1700	14012

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Many people who work for green industry companies lack a formal education in pest control and production information on landscape plants and greenhouse crops. These green industry employees rely on the internet to supply information for production problems or plant concerns. The companies these people work for need unbiased information that will help the employees and their company to produce plants in an environmentally responsible manner.

What has been done

A web site, the Nursery Technical Resource Center, was maintained and periodically updated during the past year.

Results

The nursery web site had over 14,000 visits this past year. Most of the visits were from North America, but several visits are from overseas each month. Visitors downloaded a number of technical articles available. The articles downloaded most often were ones that described pest problems (diseases and insects), unique production practices (gravel bed growing), or potting mix characteristics. The technical information on the web site has been used all over the country and Canada, based on requests for additional information from web site articles downloaded this past year.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
205	Plant Management Systems

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

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

1. Evaluation Studies Planned

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

Evaluation Results

Evaluation results are in the form of pre and post exams in the Master Gardener Program. For other classes offered in horticulture, class or course evaluations are collected at the end to determine a participant's increased knowledge, desire to adopt or change a behavior addressed in the class or course, which topics were most useful and why, and future educational needs.

Students are evaluated as to knowledge and skills gained by exams as well as hands-on projects they must complete such as drawing a landscape plan, rooting cuttings and growing seeds. Impact is further accessed of practices that students changed or adopted in their home gardens and landscapes through tours to selected individual residences to observe these adopted practices. Key practices adopted in home gardens and landscapes would be water usage and conservation, mulching, correct plant choices for the site, pest and disease control choices, soil preparation, fertilizer usage, quantity and quality of produce, successful design principles used in landscaping, etc.

Key Items of Evaluation