

V(A). Planned Program (Summary)

Program # 9

1. Name of the Planned Program

Water Quality, Quantity and Security

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
102	Soil, Plant, Water, Nutrient Relationships	4%		14%	
103	Management of Saline and Sodic Soils and Salinity	3%		1%	
111	Conservation and Efficient Use of Water	34%		15%	
112	Watershed Protection and Management	28%		17%	
122	Management and Control of Forest and Range Fires	0%		1%	
123	Management and Sustainability of Forest Resources	0%		2%	
131	Alternative Uses of Land	0%		2%	
132	Weather and Climate	2%		1%	
133	Pollution Prevention and Mitigation	21%		10%	
135	Aquatic and Terrestrial Wildlife	0%		6%	
201	Plant Genome, Genetics, and Genetic Mechanisms	0%		11%	
205	Plant Management Systems	1%		4%	
314	Toxic Chemicals, Poisonous Plants, Naturally Occurring Toxins, and Other Hazards Affecting Animals	3%		0%	
403	Waste Disposal, Recycling, and Reuse	2%		2%	
405	Drainage and Irrigation Systems and Facilities	1%		1%	
501	New and Improved Food Processing Technologies	0%		5%	
601	Economics of Agricultural Production and Farm Management	0%		3%	
605	Natural Resource and Environmental Economics	0%		2%	
610	Domestic Policy Analysis	1%		0%	
723	Hazards to Human Health and Safety	0%		3%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

1. Actual amount of FTE/SYs expended this Program

Year: 2012	Extension		Research	
	1862	1890	1862	1890
Plan	22.6	0.0	15.9	0.0
Actual Paid Professional	22.2	0.0	13.1	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
165115	0	166366	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
165115	0	166366	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
8548821	0	8681909	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

UC ANR's integrated research and extension activities will conduct research projects, workshops, education classes and demonstrations, as well as one-on-one interventions. In addition, the programs will use PSAs, newsletters, mass media, web sites and collaborations with other agencies and organizations to create and deliver programs.

2. Brief description of the target audience

- Governmental agencies
- Water managers
- UC campus-based water centers
- The general public
- Farmers
- Ranchers
- Agricultural organizations
- Owners/managers of private and public rangeland, forest and wildlands

3. How was eXtension used?

UC ANR academics used eXtension to participate in and contribute to many Communities of

Practice, to answer "Ask an Expert" questions, and for other networking purposes.

V(E). Planned Program (Outputs)

1. Standard output measures

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

Patent Applications Submitted

Year: 2012
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2012	Extension	Research	Total
Actual	4	57	61

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- Classes/Short Courses Conducted

Year	Actual
2012	17

Output #2

Output Measure

- Workshops Conducted

Year	Actual
2012	9

Output #3

Output Measure

- Demonstrations and Field Days Conducted

Year	Actual
2012	9

Output #4

Output Measure

- Newsletters Produced

Year	Actual
2012	1

Output #5

Output Measure

- Web Sites Created or Updated

Year	Actual
2012	4

Output #6

Output Measure

- Research Projects Conducted

Year	Actual
2012	33

Output #7

Output Measure

- Videos, Slide Sets and Other AV or Digital Media Educational Products Created

Year	Actual
2012	2

Output #8

Output Measure

- Manuals and Other Printed Instructional Materials Produced

Year	Actual
2012	8

V(G). State Defined Outcomes

V. State Defined Outcomes Table of Content

O. No.	OUTCOME NAME
1	Percentage of farm, ranch, and rangeland owner/operators and managers and allied industry professionals, participating in water quality education programs, gaining knowledge of best management practices for improving water quality
2	Percentage of farm, ranch, and rangeland owner/operators and managers and allied industry professionals, participating in water quality education programs, adopting best management practices for improving water quality
3	Percentage of farm owner/operators, allied industry professionals, and members of the public, participating in water conservation education programs, gaining knowledge of water use and conservation practices
4	Farm owner/operators and managers, and allied industry professionals, participating in agriculture education programs, gained knowledge of irrigation and water management practices.
5	Farm, ranch and nursery owner/operator and managers, and allied industry professionals, participating in agriculture education programs, adopted recommended irrigation or other water and soil management practices.
6	Farm, ranch, and rangeland owner/operators and managers, allied industry professionals, public agency representatives, and members of the public, participating in water quality education programs, gained knowledge of best management practices for preserving water quality.
7	Farm owner/operators, allied industry and natural resource professionals, and members of the public, participating in water conservation education programs, gained knowledge of water use and conservation practices.
8	Farm, ranch, rangeland, landscape, and nursery owner/operators and managers and allied industry professionals, participating in sustainable use of water education programs, adopted best management practices for water conservation and preserving water quality.

Outcome #1

1. Outcome Measures

Percentage of farm, ranch, and rangeland owner/operators and managers and allied industry professionals, participating in water quality education programs, gaining knowledge of best management practices for improving water quality

Not Reporting on this Outcome Measure

Outcome #2

1. Outcome Measures

Percentage of farm, ranch, and rangeland owner/operators and managers and allied industry professionals, participating in water quality education programs, adopting best management practices for improving water quality

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

Percentage of farm owner/operators, allied industry professionals, and members of the public, participating in water conservation education programs, gaining knowledge of water use and conservation practices

Not Reporting on this Outcome Measure

Outcome #4

1. Outcome Measures

Farm owner/operators and managers, and allied industry professionals, participating in agriculture education programs, gained knowledge of irrigation and water management practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
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2012

150

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water

Outcome #5

1. Outcome Measures

Farm, ranch and nursery owner/operator and managers, and allied industry professionals, participating in agriculture education programs, adopted recommended irrigation or other water and soil management practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	161

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
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102	Soil, Plant, Water, Nutrient Relationships
111	Conservation and Efficient Use of Water

Outcome #6

1. Outcome Measures

Farm, ranch, and rangeland owner/operators and managers, allied industry professionals, public agency representatives, and members of the public, participating in water quality education programs, gained knowledge of best management practices for preserving water quality.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	150

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation

Outcome #7

1. Outcome Measures

Farm owner/operators, allied industry and natural resource professionals, and members of the public, participating in water conservation education programs, gained knowledge of water use and conservation practices.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	217

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management

Outcome #8

1. Outcome Measures

Farm, ranch, rangeland, landscape, and nursery owner/operators and managers and allied industry professionals, participating in sustainable use of water education programs, adopted best management practices for water conservation and preserving water quality.

2. Associated Institution Types

- 1862 Extension
- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Actual
2012	112

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
111	Conservation and Efficient Use of Water
112	Watershed Protection and Management
133	Pollution Prevention and Mitigation

V(H). Planned Program (External Factors)

External factors which affected outcomes

- Natural Disasters (drought, weather extremes, etc.)
- Economy
- Appropriations changes
- Public Policy changes
- Government Regulations
- Competing Public priorities
- Competing Programmatic Challenges
- Populations changes (immigration, new cultural groupings, etc.)

Brief Explanation

V(I). Planned Program (Evaluation Studies)

Evaluation Results

UC ANR's most notable qualitative impacts that were realized, as well as the quantitative outcomes recorded from the evaluation studies, are reported under the State Defined Outcomes section.

Key Items of Evaluation

The Report Overview's federal Planned Program summary of accomplishments highlights ANR's most significant work during FY 2012, especially the research

developments. The State Defined Outcomes section captures clientele adoption of recommended practices; these are the types of ultimate impacts that UC ANR research and education programs strive to realize.