

Soil, Water, and Environmental Systems

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Soil, Water, and Environmental Systems

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
101	Appraisal of Soil Resources	15%		16%	
102	Soil, Plant, Water, Nutrient Relationships	40%		58%	
103	Management of Saline and Sodic Soils and Salinity	15%		0%	
136	Conservation of Biological Diversity	30%		26%	
	Total	100%		100%	

V(C). Planned Program (Inputs)

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

Year: 2008	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	5.7	0.0
Actual	0.2	0.0	3.9	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
0	0	190736	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	1104151	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	1291920	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Conduct Research Experiments.
 - Conduct Workshops, meetings.
 - Develop Products, Curriculum, Resources.
 - Provide Training.
 - Assessments.

2. Brief description of the target audience

Professional peers and scientific communities
 State, federal, and international agencies—Soil and Water Conservation Districts, Natural Resource Conservation Service, Oregon Department of Agriculture, Department of Energy, USDA, NSF, United Nations
 Natural resource and agricultural industry clientele
 Undergraduate and graduate students being trained in research activities

V(E). Planned Program (Outputs)

1. Standard output measures

Target for the number of persons (contacts) reached through direct and indirect contact methods

	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Year	Target	Target	Target	Target
Plan	500	1000	0	0
2008	100	100	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2008:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	0	12	
2008	0	26	26

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

SCHOLARLY excellence in referred articles, book chapters, and books; participation on professional boards and panels, as well as science panels.

Year	Target	Actual
2008	18	91

Output #2

Output Measure

EFFECTS ON AND PROTECTION OF ENVIRONMENTAL HEALTH AND ECOLOGY – improve understanding about fluxes of energy and mass in soils by peers and clients – improve understanding of how abiotic and biotic factors influence size and composition of microbial communities in soil and how microorganisms affect key soil and plant processes. – Assess soil-landscape evolution in Oregon and partition soil respiration measurements on the landscape scale

Year	Target	Actual
2008	900	21

V(G). State Defined Outcomes

O No.	Outcome Name
1	New research methods and discoveries will be published in the areas of fluid movement through soils, biogeochemical recycling in soils, carbon and nitrogen cycling in soils, microbial diversity in soils, and soil-landscape evolution.
2	New research methods will be adopted by the research community. Research on fluid flows in soils will allow for better waste material containment facility design. Research on carbon and nitrogen cycling will lead to better regional and national nutrient sequestration plans as partial solutions for nutrient contamination and global warming concerns. Research on microbial diversity will lead to better understandings of changes that occur in soils under different management regimes, of inherent differences in soil microbe diversity, and of the ability of soils to recover from events that affect microbial populations. Research on soil-landscape evolution will allow for use of remote-sensing and modeling techniques to predict the effects of human, biotic and abiotic forces on soil formation and to use this information in soil mapping, land use planning and other activities.
3	Nuclear and other waste storage will be safer. Global warming will be addressed in part by carbon sequestration strategies. Soil microbial health will be maintained or improved. Soil maps will be available as a resource assessment tool where they are now not available.

Outcome #1

1. Outcome Measures

Not reporting on this Outcome for this Annual Report

2. Associated Institution Types

3a. Outcome Type:

3b. Quantitative Outcome

Year	Quantitative Target	Actual
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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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V(H). Planned Program (External Factors)

External factors which affected outcomes

Appropriations changes

Public Policy changes

Competing Public priorities

Competing Programmatic Challenges

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

Brief Explanation

{No Data Entered}

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

1. Evaluation Studies Planned

Evaluation Results

{No Data Entered}

Key Items of Evaluation

{No Data Entered}