

Plant Protection

Plant Protection

V(A). Planned Program (Summary)

1. Name of the Planned Program

Plant Protection

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			1%	
123	Management and Sustainability of Forest Resources			1%	
136	Conservation of Biological Diversity			4%	
201	Plant Genome, Genetics, and Genetic Mechanisms			1%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants			1%	
204	Plant Product Quality and Utility (Preharvest)			1%	
205	Plant Management Systems			3%	
206	Basic Plant Biology			2%	
211	Insects, Mites, and Other Arthropods Affecting Plants			8%	
212	Pathogens and Nematodes Affecting Plants			13%	
213	Weeds Affecting Plants			22%	
215	Biological Control of Pests Affecting Plants			10%	
216	Integrated Pest Management Systems			23%	
601	Economics of Agricultural Production and Farm Management			1%	
605	Natural Resource and Environmental Economics			1%	
711	Ensure Food Products Free of Harmful Chemicals, Including Residues from Agricultural and Other Sources.			1%	
721	Insects and Other Pests Affecting Humans			7%	
	Total			100%	

V(C). Planned Program (Inputs)

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

Year: 2007	Extension		Research	
	1862	1890	1862	1890
Plan	0.0	0.0	5.6	0.0
Actual	0.0	0.0	5.2	0.0

2. Actual dollars expended in this Program (includes Carryover Funds from previous years)

Extension		Research	
Smith-Lever 3b & 3c 0	1890 Extension 0	Hatch 327637	Evans-Allen 0
1862 Matching 0	1890 Matching 0	1862 Matching 1660751	1890 Matching 0
1862 All Other 0	1890 All Other 0	1862 All Other 427967	1890 All Other 0

V(D). Planned Program (Activity)**1. Brief description of the Activity**

Research new ways to control diseases of potato and blueberry. Research new soil management techniques to control weeds. Research biological control of pests of potato, blueberry, other crops, and invasive ant species. Publish peer-reviewed journal articles and other publications concerning research. Present findings at professional meetings and at field days for growers and other venues.

2. Brief description of the target audience

Scientists, extension specialists, pest management professionals, potato, blueberry, and other crop producers in Maine

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	0	0	0	0
2007	0	0	0	0

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

Year **Target**

Plan: 0

2007: 0

Patents listed**3. Publications (Standard General Output Measure)****Number of Peer Reviewed Publications**

	Extension	Research	Total
Plan			
2007	0	24	24

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

of peer-reviewed publications

Year	Target	Actual
2007	12	24

Output #2

Output Measure

of other types of publications

Year	Target	Actual
2007	10	26

Output #3

Output Measure

of papers presented at professional meetings

Year	Target	Actual
2007	30	53

Output #4

Output Measure

of research projects completed on ways to protect valuable plant/crop species

Year	Target	Actual
2007	4	2

Output #5

Output Measure

of field days/research tours

Year	Target	Actual
2007	5	5

V(G). State Defined Outcomes

O No.	Outcome Name
1	% of potato growers familiar with effects of soil management on populations of insect
2	# of <i>Rhizoctonia solani</i> genes identified that express differentially under conditions of quinate-induced hypovirulence
3	# of <i>Rhizoctonia solani</i> genes identified that express differentially under conditions of genetically stable hypovirulence
4	# of <i>Rhizoctonia solani</i> genes identified that express differentially under conditions of virulence
5	# of Maine blueberry growers using University of Maine's diagnostic services, annually
6	# of Maine potato growers developing a better understanding of how the use of manure soil amendments and longer crop rotations affect potato insect and weed pests, and diseases and well as potato yield, quality, and profitability
7	# of Maine potato growers learning how to integrate animal-based production systems with their potato operations
8	# of Maine blueberry growers adopting and maintaining integrated pest management strategies
9	% of Maine blueberry acreage treated with perimeter tactics for control of blueberry maggot fly
10	# of alternative pest and soil management systems for potato that are ready for commercial-scale evaluation
11	% of organic and diversified vegetable farmers surveyed who have adopted weed seedbank management practices
12	% reduction in the amount of damage from blueberry maggot fly in treated fields vs nontreated fields
13	% reduction in the amount of organophosphate insecticides used to treat blueberry maggot fly in Maine
14	# of commercial-scale demonstrations with significant reductions in pesticide and fertilizer use and improvements in soil quality
15	Average density of germinable weed seedbank found by Maine growers adopting ecologically based weed management practices (# of germinable seeds per square meter, 10 cm deep). Weed populations surviving cultivation will not reduce crop yield or quality and
16	Reduction in potato insect pests from improved soil quality
17	Alternative pollinators for wild blueberry producers
18	New forecasting tool for blueberry fungal disease

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

- 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.)
- Other (new insect pests or diseases)

Brief Explanation

{No Data Entered}

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

1. Evaluation Studies Planned

- After Only (post program)
- During (during program)
- Comparison between locales where the program operates and sites without program intervention

Evaluation Results

{No Data Entered}

Key Items of Evaluation
{No Data Entered}