

V(A). Planned Program (Summary)

Program # 2

1. Name of the Planned Program

Plant Production

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			8%	
102	Soil, Plant, Water, Nutrient Relationships			36%	
111	Conservation and Efficient Use of Water			4%	
201	Plant Genome, Genetics, and Genetic Mechanisms			3%	
202	Plant Genetic Resources			5%	
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants			10%	
204	Plant Product Quality and Utility (Preharvest)			3%	
205	Plant Management Systems			14%	
206	Basic Plant Biology			7%	
211	Insects, Mites, and Other Arthropods Affecting Plants			4%	
212	Pathogens and Nematodes Affecting Plants			2%	
213	Weeds Affecting Plants			2%	
215	Biological Control of Pests Affecting Plants			1%	
503	Quality Maintenance in Storing and Marketing Food Products			1%	
	Total			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	0.0	0.0	5.5	0.0
Actual	0.0	0.0	4.5	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
0	0	291111	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
0	0	420722	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
0	0	0	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

Research new ways to increase the productivity of potato, blueberry, apple, small fruit and vegetable crops. Develop and test new potato, other vegetable, and horticultural plant varieties. Conduct research on basic plant biology and molecular biology issues. Research new soil management and cover crop techniques to increase yields and improve soil quality. Research basic soil chemistry issues. Publish peer-reviewed journal articles and other publications concerning research. Present findings at professional meetings, at field days for growers, and at other venues.

2. Brief description of the target audience

Plant geneticists, biologists, and molecular biologists, soil scientists, extension specialists, plant breeders, Maine's horticultural industry, Maine fruit and vegetable producers, greens managers

V(E). Planned Program (Outputs)

1. Standard output measures

2010	Direct Contacts Adults	Indirect Contacts Adults	Direct Contacts Youth	Indirect Contacts Youth
Plan	0	0	0	0
Actual	0	0	0	0

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

Patent Applications Submitted

Year: 2010
 Plan: 0
 Actual: 0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

2010	Extension	Research	Total
Plan	0	12	
Actual	0	12	25

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

- # of research projects completed

Year	Target	Actual
2010	2	3

Output #2

Output Measure

- # of papers presented at professional meetings

Year	Target	Actual
2010	24	47

Output #3

Output Measure

- # of other types of publications

Year	Target	Actual
2010	9	19

Output #4

Output Measure

- MAFES scientists lead a 2-day trip to Quebec for 26 farmers, millers, bakers and researchers to tour Quebec's highly successful local bread wheat system.

Year	Target	Actual
2010	{No Data Entered}	1

Output #5

Output Measure

- # of videos produced: "Local Bread Wheat in Quebec" and "Weed Control in Organic Cereals." Both are posted on our newly created project website, <http://sites.google.com/site/localbreadwheatproject/>, as well as on the Northern Grain Growers Association website, which this project supports, <http://northerngraingrowers.org/>.

Year	Target	Actual
2010	{No Data Entered}	2

Output #6

Output Measure

- # of interactive enterprise budgets that allow farmers to evaluate the economics of adding a bread wheat enterprise to their operation. Interactive version and posted on website; hard copies were distributed field days, workshops, and grower meetings.

Year	Target	Actual
2010	{No Data Entered}	1

Output #7

Output Measure

- # of surveys was sent to 343 wild blueberry growers in the state of Maine asking questions management practices, pesticide use, priorities, influences in decision-making, and beliefs about pesticide safety

Year	Target	Actual
2010	{No Data Entered}	1

Output #8

Output Measure

- Amount of extramural funding awarded to faculty working in this program area during university fiscal year 2010

Year	Target	Actual
2010	{No Data Entered}	1455778

V(G). State Defined Outcomes**V. State Defined Outcomes Table of Content**

O. No.	OUTCOME NAME
1	# of improved analytical methods developed to study dissolved organic matter in soils
2	Increase in profitability for Maine apple industry from a quicker return on investment and reduction in catastrophic tree losses (\$)
3	# of commercial-scale tests of new high-yielding, high-quality, and/or pest-resistant potato clones tested in Maine
4	# of Maine seed growers adopting new high-yielding, high-quality, and/or pest-resistant clones from the Maine Potato Breeding Program or other programs represented in our commercial trial program (as indicated by entry in seed certification)
5	Decrease in percentage of lowbush blueberry leaf tissue samples with nitrogen and phosphorus deficiencies
6	Number of facilities propagating lowbush blueberry by tissue culture using information from this research
7	# of Maine lowbush blueberry growers learning about benefits of leaf sampling techniques to aid in fertility management decisions
8	Percentage of Maine lowbush blueberry growers surveyed who are changing their fertilization practices due to information provided by the fertility research program
9	# of high-quality and/or pest-resistant potato clones from the Maine Potato Breeding Program made available to other states for evaluation under diverse environmental conditions
10	# of new high-yielding, high-quality, and/or pest-resistant potato clones named and released by the Maine Potato Breeding Program
11	Percentage of Maine potato growers informed about promising new potato clones from the Maine Potato Breeding Program and other eastern programs
12	# of people improving their knowledge of the potential benefits of composting
13	Number of people surveyed using composts as a soil amendment to reduce organic waste volume and improve soil quality
14	# of Maine and New England vegetable growers learning about regionally adapted vegetable varieties
15	# of Maine vegetable growers learning about alternative crops and appropriate cultural management techniques for hoop house production
16	# of Maine vegetable growers learning about fall beds and the hybrid mulching system
17	# of Maine vegetable growers practicing crop rotation in hoop houses by growing alternative crops

18	# of Maine vegetable growers using fall made beds or hybrid mulching
19	Percentage of Maine vegetable growers that have improved management of their hoop houses
20	Reduced pesticide use and/or improved marketable yields on acres planted to new pest-resistant potato cultivars in Maine
21	Percentage of Maine potato producers improving their knowledge of the benefits of using organic amendments in their cropping systems
22	Percentage of Maine potato growers adding organic amendments to improve soil quality
23	Percentage of Maine potato growers decreasing their use of synthetic purchased fertilizer due to use of organic nutrients
24	Number of Maine potato growers increasing their understanding of plant productivity, nutrient cycling and pest ecology in carbon-enriched potato cropping systems
25	Number of Maine organic vegetable crop growers increasing their understanding of how biologically based soil amendments can enhance soil quality and fertility in Maine
26	Percentage of farmers taking part in a study trip to Quebec who have started harvesting their wheat at a higher grain moisture content to protect grain quality
27	Number of new winter wheat varieties identified as showing promise for growing in northern New England
28	Number of potential ornamental plants that have been successfully regenerated from stem cutting and in vitro culture
29	Improved potato yields
30	# of acres in northern Maine potato production systems that were treated with wood ash over the past two years with lime and fertilizer savings amounting to \$30 to \$60 per acre
31	Improved fertilization recommendations for potato growers
32	Number of late blight resistant UMaine clones that are in commercial evaluation

Outcome #1

1. Outcome Measures

of improved analytical methods developed to study dissolved organic matter in soils

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	1	1

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
101	Appraisal of Soil Resources

Outcome #2

1. Outcome Measures

Increase in profitability for Maine apple industry from a quicker return on investment and reduction in catastrophic tree losses (\$)

Not Reporting on this Outcome Measure

Outcome #3

1. Outcome Measures

of commercial-scale tests of new high-yielding, high-quality, and/or pest-resistant potato clones tested in Maine

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	10	16

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

ME coordinated 16 commercial-scale trials representing 12 new potato varieties (4 chippers, 2 russets, 4 reds, 1 late blight resistant round white, and 1 fresh market yellow fleshed) and 63 acres during 2010.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
211	Insects, Mites, and Other Arthropods Affecting Plants

Outcome #4

1. Outcome Measures

of Maine seed growers adopting new high-yielding, high-quality, and/or pest-resistant clones from the Maine Potato Breeding Program or other programs represented in our commercial trial program (as indicated by entry in seed certification)

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	5	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Eastern potato production represents hundreds of farms and more than \$460 million cash farm receipts; therefore, the impact of a successful new potato variety can mean many millions of dollars to the industry. Consumers also benefit from the high quality, local food production resulting from new potato variety adoption. Disease resistant varieties generated by this project have the potential to greatly reduce growers' losses to devastating diseases such as pink rot and/or late blight.

What has been done

The eastern potato breeding and selection effort produces new varieties and evaluates their potential to serve fresh, processing, and specialty markets in the East.

Results

Red Maria (NY129) was released in 2010 and the release of two new chipping varieties, Lamoka (NY139) and Waneta (NY138), is anticipated in 2011. Demand for seed of NY138 and NY139 has exceeded supply. Recent eastern releases since 2002 (e.g. Marcy, Monticello, Harley Blackwell, Red Maria, Lehigh, and Peter Wilcox) were grown on 452 seed acres during 2010 with a seed value of \$1,200,000. The resulting seed crop has the potential to plant 4500 acres in 2011 with a ware value conservatively estimated at \$9M.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
211	Insects, Mites, and Other Arthropods Affecting Plants

Outcome #5

1. Outcome Measures

Decrease in percentage of lowbush blueberry leaf tissue samples with nitrogen and phosphorus deficiencies

Not Reporting on this Outcome Measure

Outcome #6

1. Outcome Measures

Number of facilities propagating lowbush blueberry by tissue culture using information from this research

Not Reporting on this Outcome Measure

Outcome #7

1. Outcome Measures

of Maine lowbush blueberry growers learning about benefits of leaf sampling techniques to aid in fertility management decisions

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	125	125

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
206	Basic Plant Biology

Outcome #8

1. Outcome Measures

Percentage of Maine lowbush blueberry growers surveyed who are changing their fertilization practices due to information provided by the fertility research program

Not Reporting on this Outcome Measure

Outcome #9

1. Outcome Measures

of high-quality and/or pest-resistant potato clones from the Maine Potato Breeding Program made available to other states for evaluation under diverse environmental conditions

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	10	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

There were six advanced UMaine clones entered into commercial evaluations during 2010. AF2291-10 is an early blight and scab resistant clone with good chipping quality. AF2574-1 is a fresh market clone with good yields and late blight resistance. AF0338-17 is a round-white that is widely adapted to eastern growing conditions and can chip from the field. AF3001-6, AF3362-1, and AF3317-15 are being evaluated as dual-purpose clones for french fry processing and fresh market. The latter has very good late blight, scab, and pink rot resistance.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
211	Insects, Mites, and Other Arthropods Affecting Plants

Outcome #10

1. Outcome Measures

of new high-yielding, high-quality, and/or pest-resistant potato clones named and released by the Maine Potato Breeding Program

Not Reporting on this Outcome Measure

Outcome #11

1. Outcome Measures

Percentage of Maine potato growers informed about promising new potato clones from the Maine Potato Breeding Program and other eastern programs

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	50	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
211	Insects, Mites, and Other Arthropods Affecting Plants

Outcome #12

1. Outcome Measures

of people improving their knowledge of the potential benefits of composting

Not Reporting on this Outcome Measure

Outcome #13

1. Outcome Measures

Number of people surveyed using composts as a soil amendment to reduce organic waste volume and improve soil quality

Not Reporting on this Outcome Measure

Outcome #14

1. Outcome Measures

of Maine and New England vegetable growers learning about regionally adapted vegetable varieties

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	1000	1800

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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205 Plant Management Systems

Outcome #15

1. Outcome Measures

of Maine vegetable growers learning about alternative crops and appropriate cultural management techniques for hoop house production

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	125	125

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #16

1. Outcome Measures

of Maine vegetable growers learning about fall beds and the hybrid mulching system

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	100	125

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #17

1. Outcome Measures

of Maine vegetable growers practicing crop rotation in hoop houses by growing alternative crops

Not Reporting on this Outcome Measure

Outcome #18

1. Outcome Measures

of Maine vegetable growers using fall made beds or hybrid mulching

Not Reporting on this Outcome Measure

Outcome #19

1. Outcome Measures

Percentage of Maine vegetable growers that have improved management of their hoop houses

Not Reporting on this Outcome Measure

Outcome #20

1. Outcome Measures

Reduced pesticide use and/or improved marketable yields on acres planted to new pest-resistant potato cultivars in Maine

Not Reporting on this Outcome Measure

Outcome #21

1. Outcome Measures

Percentage of Maine potato producers improving their knowledge of the benefits of using organic amendments in their cropping systems

Not Reporting on this Outcome Measure

Outcome #22

1. Outcome Measures

Percentage of Maine potato growers adding organic amendments to improve soil quality

Not Reporting on this Outcome Measure

Outcome #23

1. Outcome Measures

Percentage of Maine potato growers decreasing their use of synthetic purchased fertilizer due to use of organic nutrients

Not Reporting on this Outcome Measure

Outcome #24

1. Outcome Measures

Number of Maine potato growers increasing their understanding of plant productivity, nutrient cycling and pest ecology in carbon-enriched potato cropping systems

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	140

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

Outcome #25

1. Outcome Measures

Number of Maine organic vegetable crop growers increasing their understanding of how biologically based soil amendments can enhance soil quality and fertility in Maine

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Knowledge Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	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
102	Soil, Plant, Water, Nutrient Relationships

Outcome #26

1. Outcome Measures

Percentage of farmers taking part in a study trip to Quebec who have started harvesting their wheat at a higher grain moisture content to protect grain quality

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	50

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #27

1. Outcome Measures

Number of new winter wheat varieties identified as showing promise for growing in northern New England

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	6

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

Several farmers planted one new variety based on the yield and quality data that was made available to them in late August. The new variety had exceptional yield and quality; bake tests performed by local bakers confirmed field and lab results.

4. Associated Knowledge Areas

KA Code	Knowledge Area
205	Plant Management Systems

Outcome #28

1. Outcome Measures

Number of potential ornamental plants that have been successfully regenerated from stem cutting and in vitro culture

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

In collaboration with China, two potential ornamental plants, *Symplocos tetragona* and *Zelkova schneideriana*, have been successfully regenerated from stem cuttings and in vitro culture. *Symplocos tetragona* could be propagated by semi-hardwood cuttings and the rooting percentage and quality (by rooting ball volume) had been significantly increased by rotting hormones. The highest rooting rate (100%) was obtained from cuttings treated with powery hormone Hormodin #3. To produce *Zelkova schneideriana*, leaf explants were cultured on Wood Plant Medium (WPM), Murashige and Skoog (MS), 1/2MS, or B5 media with various hormones. WPM was the most effective medium for callus induction, which regenerated plantlets.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
205	Plant Management Systems
206	Basic Plant Biology

Outcome #29

1. Outcome Measures

Improved potato yields

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

Potato producers in the Northeast require management practices that will provide a high quality product for new and expanding markets, while also optimizing yields under the region's variable soil and climatic conditions. Fertilizer and pesticide input costs have increased by approximately twofold over the past few years due to volatile energy markets. As a result, potato growers are increasingly focusing on ways to decrease their input costs and improve the sustainability of their farming operations.

What has been done

MAFES researchers completed a long-term study of crop rotation effects on soil quality and potato crop performance during 2010. Continuous potatoes was compared to three different two-year rotations and a three-year rotation containing a mixed clover and timothy green manure.

Results

They found US1 yields of Superior potatoes were equal among the two- and three-year rotations, averaging 28.4 t per ha, far greater than the 9.0 t per ha yield in the continuous potato treatment. Late-season crop vigor also improved as rotation length increased, and early-dying incidence and severity decreased as rotation length increased. Over the full project, the three-year rotation was the highest yielding followed by a two-year rotation supplemented with occasional applications of compost and manure. The researchers found that consistent use of a clover rotation crops can reduce N fertilizer costs for growers, while maintaining soil cover and providing high yields and good tuber quality. A 100 lbs/A reduction in N needs can reduce the N fertilizer costs by \$40/A.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
503	Quality Maintenance in Storing and Marketing Food Products

Outcome #30

1. Outcome Measures

of acres in northern Maine potato production systems that were treated with wood ash over the past two years with lime and fertilizer savings amounting to \$30 to \$60 per acre

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Condition Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	8000

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
503	Quality Maintenance in Storing and Marketing Food Products

Outcome #31

1. Outcome Measures

Improved fertilization recommendations for potato growers

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	0

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

MAFES scientists are continuing to use potato research plots to provide better tools for predicting N and other nutrient needs through soil testing. Virtually all potato soils in Maine are routinely soil tested for nutrient availability, and the fertilization recommendations provided to our growers are based, in part, on MAFES research.

4. Associated Knowledge Areas

KA Code	Knowledge Area
102	Soil, Plant, Water, Nutrient Relationships
203	Plant Biological Efficiency and Abiotic Stresses Affecting Plants
204	Plant Product Quality and Utility (Preharvest)
205	Plant Management Systems
503	Quality Maintenance in Storing and Marketing Food Products

Outcome #32

1. Outcome Measures

Number of late blight resistant UMaine clones that are in commercial evaluation

2. Associated Institution Types

- 1862 Research

3a. Outcome Type:

Change in Action Outcome Measure

3b. Quantitative Outcome

Year	Quantitative Target	Actual
2010	{No Data Entered}	2

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

Two late blight resistant clones, AF2574-1 (fresh market, white) and AF3317-15 (russet, french fry processing), are in initial stages of commercial evaluation. If adopted they could reduce the number of fungicide applications needed to grow a potato crop and/or reduce the risk of late blight infection and spread.

4. Associated Knowledge Areas

KA Code	Knowledge Area
202	Plant Genetic Resources
204	Plant Product Quality and Utility (Preharvest)
211	Insects, Mites, and Other Arthropods Affecting Plants
212	Pathogens and Nematodes Affecting Plants

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 pest/disease species)

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}