Cereals

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V(A). Planned Program (Summary)

1. Name of the Planned Program

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V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
201	Plant Genome, Genetics, and Genetic Mechanisms	20%		20%	
202	Plant Genetic Resources	20%		20%	
205	Plant Management Systems	20%		20%	
211	Insects, Mites, and Other Arthropods Affecting Plants	20%		20%	
212	Pathogens and Nematodes Affecting Plants	10%		10%	
502	New and Improved Food Products	10%		10%	
	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	4.6	0.0	4.9	0.0
Actual	7.8	0.0	8.0	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
117092	0	364238	0
1862 Matching	1890 Matching	1862 Matching	1890 Matching
117092	0	364238	0
1862 All Other	1890 All Other	1862 All Other	1890 All Other
262362	0	3725586	0

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V(D). Planned Program (Activity)

1. Brief description of the Activity

The Cereals Team conducted cereal schools to provide interactive learning and new technologies to growers including information about new varieties, pest management practices and problems, management decisions, and integration of cereals in cropping systems.In addition, numerous participating faculty delivered educational programs that are instrumental for industry members to receive pesticide applicator credits necessary for certification and re-certification.

The Team conducted field trials to learn about the localized performance characteristics of varieties, and of cereals-related products, and invited growers and consultants to participate in tours and field days to share new knowledge with those stakeholders.For wheat and barley, breeding, testing, and evaluating agronomic performance, end-use quality, adaptability to an areas or types of production, suitability for specialty markets, and production of seed for moving the varieties into commercial production is crucial information for a significant economic engine in the State.

Members of the Cereals Team met with advisory committees, commodity commissions, processors, and ag-support industries for feedback and to inform them of work in cereal production in Idaho.Cereals faculty wrote articles for trade journals, produced and published newsletters, research reports, and produced scientific articles for publication in refereed journals.

2. Brief description of the target audience

The target audience for the Cereals Team includes commercial cereal producers/farmers, public resource agency and regulatory personnel, crop consultants, Ag Industry field representatives (Fieldmen), Tribal farmers, news media, and other public audiences.

Topic team members meet with advisory committees, commodity commissions (Idaho Wheat Commission, Idaho Barley Commission, Idaho Grain Producers), processors, ag support industries for feedback and to inform them of work in cereal production research and extension programs in Idaho.

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	2000	2000	20	20
2008	10907	20464	594	50

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

Patent Applications Submitted

Year	Target
Plan:	1
2008:	1

Patents listed

Crop: Wheat, common
Variety: Bitterroot
Experimental name or Synonym: <ID92-22407A>
Taxon: Triticum aestivum L.
Date filed: 09/29/2008

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3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	10	1	
2008	7	10	17

V(F). State Defined Outputs

Output Target
Output #1

Output Measure
Idaho Cereal Schools.

Year	Target	Actual
2008	5	27

Output #2

Output Measure
Release and adoption of new cereal varieties.

Year	Target	Actual
2008	2	1

Output #3

Output Measure
Publication of CIS, Progress reports, PNW, etc.

Year	Target	Actual
2008	10	61

Output #4

Output Measure
Develop pest control technology - project/experiments.

Year	Target	Actual
2008	20	14

Output #5

Output Measure
Research on management systems - projects/experiments.

Year	Target	Actual
2008	30	80

Output #6

Output Measure
Refereed publications

Year	Target	Actual
2008	1	14

V(G). State Defined Outcomes

O No.	Outcome Name
1	O: Producers gain knowledge about improved cereals management.I: Number of participants attending cereal schools, field days, etc..
2	O: Producers are aware of cereal resource publications.I: Number of cereal extension publications distributed.
3	O: Producers adopt new cereal varieties.I: Increase in number of acres of new varieties (released within 5 years; greater than previously grown).
4	O: Adoption of new crop production methods.I: Number of growers who report adoption through surveys at educational events and meetings.
5	O: An increase in the number of trained graduate students prepared to enter the workforce. I: Number of M.S. and Ph.D. candidates relevant to this topic team.

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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

3c. Qualitative Outcome or Impact Statement

Issue (Who cares and Why)

What has been done

Results

4. Associated Knowledge Areas

KA Code	Knowledge Area

V(H). Planned Program (External Factors)

External factors which affected outcomes

Economy

Brief Explanation

Grain prices favor application of insecticides for pest densities that may not need chemical control.Drought seems to increase populations of some insects. A cold, wet spring affected many grain producers this year and delayed planting.In addition, the cost of fuel and fertilizer may have increased producer attendance of cereal programs as they search for more cost effective methods of production.

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

1. Evaluation Studies Planned

After Only (post program)

Retrospective (post program)

Time series (multiple points before and after program)

Evaluation Results

At the "commercial pesticide applicator's calibration fly-in," 12 aircraft were tested by measuring the pattern of their application following replicated passes over the test area.In the 2008 fly-in, spray equipment was adjusted on 7 ot the 12 planes following the test runs.Previous fly-ins determined that the applicators involved in the tests pesticide on approximately 150,000 acres each, per year.For 2008, sprayer modifications made at the fly-in improved the efficiency of application and reduced the unit cost of application on more than one million acres of cropland.

Key Items of Evaluation

UI Extension and researchers generate and test different varieties of wheat and other grains in field trials across the State, and publish the results of those trials in journals, fact sheets and on the web.For the past several years, trials have shown that Alturas (soft white spring wheat) yields an average 13 bushels per acre more than the previously popular Penawawa variety of SWS. Idaho wheat farmers, acting on that data, planted 93,300 acres of higher yielding Alturas in 2008, up from only 3,000 acres in 2004.Given average 2008 prices, the transition from Penawawa to Alturas is valued at more than $7 million for Idaho farmers in 2008.