

Corn and Soybean Production and Protection

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V(A). Planned Program (Summary)

1. Name of the Planned Program

Corn and Soybean Production and 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	20%		20%	
112	Watershed Protection and Management	10%		10%	
204	Plant Product Quality and Utility (Preharvest)	10%		10%	
205	Plant Management Systems	20%		20%	
206	Basic Plant Biology	20%		20%	
216	Integrated Pest Management Systems	20%		20%	
	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	27.0	0.0	0.0	0.0
Actual	27.0	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 787293	1890 Extension	Hatch 698697	Evans-Allen
	0		0
1862 Matching 787293	1890 Matching	1862 Matching	1890 Matching
	0	698697	0
1862 All Other 2581742	1890 All Other	1862 All Other	1890 All Other
	0	4482771	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

- Presentations (meetings, workshops, invited presentations, field days, etc.)
- Publications
- Research
- Media (radio, television, print, refereed pubs, interviews, videos, pod cast)
- Electronic (web, e-mail newsletters, FAX newsletters, CDs, etc.)
- Individual consultations (phone, e-mail, in-person)
- On-line courses

2. Brief description of the target audience

- Crop producers
- Livestock producers
- Certified Crop Advisors
- Agribusiness personnel
- Commodity organizations
- Agencies – Federal, State and Local
- Commercial manure applicators
- Land owners
- Agricultural lenders
- Beginning and returning farmers
- Policy makers

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	20000	10000	0	0
2008	14898	300000	0	0

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

Patent Applications Submitted

Year	Target
Plan:	0
2008:	1

Patents listed

7,410,107: Impellicone Manifold: Apparatus and Method of Reducing Anhydrous Ammonia Application by Optimizing Distribution.

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan	10	0	
2008	24	0	24

V(F). State Defined Outputs

Output Target

Output #1

Output Measure

Number of applied-research experiments and demonstrations at ISU research farms, grower fields, agribusiness partner locations.

Year	Target	Actual
2008	100	265

Output #2

Output Measure

Number of monitoring programs for appropriate crop pests.

Year	Target	Actual
2008	4	8

Output #3

Output Measure

Invited Presentations

Year	Target	Actual
2008	{No Data Entered}	160

V(G). State Defined Outcomes

O No.	Outcome Name
1	Number of producers and service providers attending corn and soybean programming that focuses on improving agronomic practices.
2	Number of producers and service providers attending programs to learn and apply Integrated Pest Management practices.
3	Number of producers and service providers who participate in programs designed to increase forage production and profitability and forage-based production systems.
4	Number of producers and service providers who attend programs designed to increase the awareness of new crop opportunities and varieties appropriate for bio-energy production.
5	Number of producers and service providers who participate in programs designed to increase the adoption of conservation systems on Iowa's corn and soybean acreage.
6	Number of landowners and producers attending programs that focus on applying best management practices to land coming out of the Conservation Reserve Program.
7	Number of producers and service providers trained to use diagnostic and other resource tools related to crop nutrient management.
8	Number of farmers and service providers trained in managing the nitrogen and phosphorus content of animal manure in relation to the appropriate cropping system.
9	Number of producers and service providers attending Pesticide Applicator Training programming that focuses on safe use of pesticides.

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

Brief Explanation

Iowa experienced the worst flooding in recorded history in 2008, diverting resources from other programming into flood recovery programming. The consistently wet weather in the spring significantly delayed planting and crop development and altered normal patterns of pest (insects, weeds, and diseases) infestations. Fertilizer prices doubled to tripled, causing challenges in soil fertility management and producer and agribusiness cash flows. Grain prices hit record highs in mid-season and then retrenched approximately 50% by harvest, adding to the stress.

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

1. Evaluation Studies Planned

After Only (post program)

Retrospective (post program)

During (during program)

Evaluation Results

Evaluations were conducted for the Integrated Crop Management News and for fungicide use education conducted as part of the Crop Advantage Series.

Of the surveyed participants from the Crop Advantage Series, 94.5% said they understood that hybrid susceptibility should be a consideration in corn fungicide application decisions, 97% said they understood that weather should be considered, and 87% said they understood that disease lesions on the ear leaf may indicate a risk of yield loss. Eighty-seven per cent said they did consider hybrid susceptibility, 74.4% said they did scout, and 71% said they did consider weather in actually making fungicide application decisions. In addition, 70% reviewed past research reports. Fifty-one point four per cent of those that applied a corn fungicide left a check strip for comparison, and 47.7% of those that applied a soybean fungicide left a check strip.

Of the respondents to the Integrated Crop Management News (ICMN) evaluation, 95.5% said the ICMN made them aware of methods to improve their or their client's farming operations, 96% reported that the ICMN made them more confident in making decisions or recommendations, 89% said the ICMN influenced them to make or recommend a change in farming practices, 83.7% said the ICMN prompted them to seek out additional resources on a topic, 89.4% said they had shared ICMN information with others, and 89% said they would recommend ICMN to others.

Key Items of Evaluation

The Integrated Crop Management News and the Crop Advantage Series are highly valued by producers and agribusiness. The producers that attend the Crop Advantage Series represent nearly one-fourth of all the row-crop acres in Iowa (approximately 5.5 million acres). A sample of the comments regarding the Integrated Crop Management news include:

- "Overall, the newsletter is very helpful and I read 95% of it,"
- "the info is very helpful in making management and economical decisions,"
- "great information,"
- "thank you for providing it in a simple e-mail in order to keep us up to date automatically,"
- "this is an excellent resource for agronomy and related subjects to communicate and make our farmers to apply to their farming methods to improve the productivity,"
- "keep up the good work in providing timely information on recent topics,"
- "I rely on ICM News, especially during the growing season,"
- "a good, practical publication," "ICM News is a very good and current source of information,"
- "it is one of the best products on the market,"
- "the search menu is the best out there,"
- "keep up the great work,"
- "I'm very satisfied with the newsletter,"
- "contains information that is vital in decision making,"
- "please keep up the great work!,
- "you guys do a great job!
- "Please keep up the good work!"

The implications are that the information from Crop Advantage and the Integrated Crop Management News is very important to the decision-making that occurs on a large number of acres in the state of Iowa, and better decisions are being made because of these educational activities.