

Pest Management

Pest Management

V(A). Planned Program (Summary)

1. Name of the Planned Program

Pest Management

V(B). Program Knowledge Area(s)

1. Program Knowledge Areas and Percentage

KA Code	Knowledge Area	%1862 Extension	%1890 Extension	%1862 Research	%1890 Research
211	Insects, Mites, and Other Arthropods Affecting Plants	10%		10%	
212	Pathogens and Nematodes Affecting Plants	10%		10%	
216	Integrated Pest Management Systems	30%		30%	
312	External Parasites and Pests of Animals	20%		20%	
403	Waste Disposal, Recycling, and Reuse	10%		10%	
721	Insects and Other Pests Affecting Humans	10%		10%	
723	Hazards to Human Health and Safety	10%		10%	
Total		100%		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	28.0	0.0	20.0	0.0
Actual	30.6	0.0	2.2	0.0

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

Extension		Research	
Smith-Lever 3b & 3c 396804	1890 Extension	Hatch 128507	Evans-Allen
	0		0
1862 Matching 396804	1890 Matching	1862 Matching	1890 Matching
	0	129561	0
1862 All Other 2594642	1890 All Other	1862 All Other	1890 All Other
	0	774870	0

V(D). Planned Program (Activity)

1. Brief description of the Activity

The University of Arkansas Division of Agriculture research program in pest management did reduce the impacts of major pests by:

- « Increased the knowledge base on major pests, diseases, and weeds of importance to Arkansas
- « Developed improved crop protection strategies and technologies for our major crop systems.
- « Integrated new knowledge in plant and animal genomics and basic science into the development new pest management strategies.

Extension Pest Management education was delivered through the following programs and methods, targeting issues specific to Arkansas:

- « The Cotton Nematode and Disease Management Program supported and assisted county extension programs in the state, particularly the Delta region to better identify, understand, and manage major cotton diseases in Arkansas.
- « The Pesticide Applicator Training Program provided initial certification and recertification training sessions for private and commercial/non-commercial pesticide applicators statewide each year. County agricultural Extension agents provided the training for private applicators (farmers), and the pesticide assessment specialist was responsible for training the commercial/non-commercial applicators.
- « The Rice and Soybean IPM Programs offered simple grant funding for county extension education efforts focused primarily on integrated pest management of rice and soybean principles. County extension education efforts was aimed at improving rice and soybean production and pest management through the adoption of scientifically-based management recommendations.
- « The Rice, Soybean, and Wheat Pathology Programs assisted county extension programs in the state educate growers and others involved to better identify, understand and manage the many rice, soybean, and wheat diseases in Arkansas.
- « The Soybean Cultivar Disease Screening Program assisted soybean producers in selecting the most appropriate soybean cultivars for their farms to avoid costly losses from soybean diseases and nematodes.
- « Urban and commercial horticulture educational programs was delivered to train urban and commercial vegetable, ornamental, turf and fruit clientele in the state of Arkansas in the area of best plant disease management practices.
- « Human Integrated Pest Management did develop sound recommendations for IPM targeting pests affecting humans, and delivered the recommendations to a variety of sectors of the public. Pests that were targeted in developing the recommendations include Africanized bees, termites, and fire ants in residential settings. Delivery methods include presentations at educational meetings and workshops, extension publications and newsletters, development of web-based materials and visits to households of affected citizens.

Output/Methods: Grower meetings, training extension agents and crop consultants, educational newsletters, Extension publications, visits to individual growers /homeowners, diagnosis of pest problems, newspaper/magazine /professional journal articles, interviews, field days and demonstrations, web-based information, and/or applied on- farm research.

2. Brief description of the target audience

Crop producers
Livestock producers
Division of Agriculture personnel
Agricultural consultants
Agricultural industry personnel
Pesticide applicators
Pest Control Operators
Homeowners
Golf course superintendents
Commercial pest management personnel
Master gardeners
Commercial landscapers
Landscape management staff
Public Health Officials
Other researchers
Students
Extension Specialists
Research Funding Personnel and Agencies
Policy and Decision Makers
General Public

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	78000	65000	0	0
2007	18320	70000	25	0

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

Patent Applications Submitted

Year	Target
Plan:	2
2007:	0

Patents listed

3. Publications (Standard General Output Measure)

Number of Peer Reviewed Publications

	Extension	Research	Total
Plan			
2007	3	42	45

V(F). State Defined Outputs**Output Target****Output #1****Output Measure**

Number of Educational Classes

Year	Target	Actual
2007	224	460

Output #2**Output Measure**

Number of one-on-one contacts

Year	Target	Actual
2007	60000	9898

Output #3**Output Measure**

Number of Field Demonstrations

Year	Target	Actual
2007	370	328

Output #4**Output Measure**

Number of farm tours

Year	Target	Actual
2007	60	110

Output #5**Output Measure**

Number of publications written

Year	Target	Actual
2007	15	15

Output #6**Output Measure**

Number of farm visits made

Year	Target	Actual
2007	6000	4500

Output #7**Output Measure**

Number of pesticide applicator education classes

Year	Target	Actual
2007	90	343

Output #8**Output Measure**

Number of homeowner education classes

Year	Target	Actual
2007	50	35

Output #9**Output Measure**

Number of hits on website

Year	Target	Actual
2007	4000	119924

Output #10**Output Measure**

Number of newsletters

Year	Target	Actual
2007	420	400

Pest Management

Output #11

Output Measure

Number of Research Field Days

Year	Target	Actual
2007	10	45

Output #12

Output Measure

Number of Workshops

Year	Target	Actual
2007	15	10

Output #13

Output Measure

Number of Newsletter Articles

Year	Target	Actual
2007	65	72

Output #14

Output Measure

Number of Arkansas Commodity Board Grants received

Year	Target	Actual
2007	25	18

Output #15

Output Measure

Number of Federal Grants and Contracts

Year	Target	Actual
2007	20	8

V(G). State Defined Outcomes

O No.	Outcome Name
1	Refereed Journal Publications
2	Number of participants becoming aware of IPM strategies
3	Number of participants intending to adopt IPM practices
4	Number of participants gaining knowledge of integrated pest management practices
5	Number of participants gaining knowledge of proper pesticide application practices
6	Number of participants passing commercial pesticide certification exams
7	Number of producers adopting one or more IPM practices
8	Number of homeowners adopting one or more IPM practices
9	Number of participants adopting one or more proper pesticide application practices
10	Number of diagnostic submissions
11	Number of producers using computer assisted programs
12	Number of clients using scouting programs
13	Number of clientele that have adopted IPM-related practices
14	Number of pest monitoring traps utilized
15	Business Start Ups
16	Sustained acreage on which integrated methods are adopted and implemented, resulting in improved environmental health
17	Annual soybean yield - bushels per acre
18	Annual Soybean - Value of Production (1,000 dollars)
19	Annual Rice (all) yield - pounds per acre
20	Annual Rice (all) Value of Production (1,000 dollars)
21	Annual Cotton (all) yield - pounds per acre
22	Percent of Acres of soybean acreage receiving herbicide applications
23	Pounds (1,000) of applied herbicides to planted soybean acreage
24	Percent of Acres of soybean acreage receiving insecticide applications
25	Pounds (1,000) of applied insecticides to planted soybean acreage
26	Percent of Acres of soybean acreage receiving fungicide applications
27	Pounds (1,000) of applied fungicides to planted soybean acreage

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

Natural Disasters (drought, weather extremes, etc.)

Economy

Competing Public priorities

Competing Programmatic Challenges

Brief Explanation

Pest Management program outcomes will be affected by a new Farm Bill, funding from CSREES to Land-Grant Universities, fuel costs and changes in acreage (reflecting commodity prices). Any or all of these will affect projected outcome results.

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

1. Evaluation Studies Planned

After Only (post program)

During (during program)

Other ()

Evaluation Results

The Pest Management program will collect data during and after the five-year cycle, including some long-term indicators. Long-term historical data are not available for several long-term indicators, making before and after comparisons impossible.

Key Items of Evaluation

Data will be collected from producers, consultants and other agricultural practitioners through telephone and mail surveys, questionnaires at producer meetings and on-site visits. Indirect methods will include gleaning data from NASS.