



Idaho State Department of Agriculture 2008 Grasshopper and Mormon Cricket Suppression Program Summary

Introduction

Grasshoppers and Mormon crickets continue to be one of the most serious pest problems in Idaho rangelands and adjacent croplands. Based on annual surveys conducted by the United States Department of Agriculture (USDA), Animal Plant Health Inspection Service (APHIS), Idaho has experienced very serious pest outbreaks during the last few years. The management and the timely control of grasshopper and Mormon cricket populations are high priorities for the Idaho State Department of Agriculture (ISDA) and our cooperators at USDA, APHIS. Congress has addressed this issue with special funding to the impacted states of Idaho, Utah and Nevada.

Background

Sixty-four percent of Idaho lands are administered by the Federal Government and 43% percent of the state (21.8 million acres) is classified as rangeland. The Bureau of Land Management administers 11.8 million acres in Idaho, much of it prime grasshopper/Mormon cricket habitat. There is a significant area of grasshopper and Mormon cricket habitat on federal lands that borders private rangeland and irrigated cropland in the state. Mormon crickets and grasshoppers (primarily about six species) are cyclical economic pest problems, particularly in southern Idaho. In recent years, however, significant outbreaks have also occurred in north central and northern Idaho.

Summary of Grasshopper Survey Results

Southeast, southwest and northern Idaho experienced major grasshopper outbreaks in 2008. Damage to hayfields, pastures, rangeland, gardens and landscape plants were observed throughout these areas. The southeast and southwest infestations were a mixture of *Melanoplus sanguinipes*, *M. femurrubrum*, *Aulocara ellioti* and *Camnula pellucida* grasshopper species. New infestations were found further north in Kootenai, Benewah and Latah Counties and was dominated by the *Camnula pellucida* grasshopper. The populations in northern Idaho are troubling since this degree of infestation has not been seen in recent history. The late summer and fall season should have allowed exceptional oviposition opportunities, and there are currently no factors that would indicate any reason to expect major decreases in overall grasshopper populations in 2009. It is reasonable to expect significant grasshopper outbreaks to occur in many areas of the state, including northern Idaho, during the 2009 season.

Summary of Mormon Cricket Survey Results

The Mormon cricket, *Anabrus simplex*, outbreak continued to decline in 2008 compared to 2007 and 2006. The Owyhee County infestation was similar to 2007, only it was more concentrated in the northern region of the county and along Highway 95 to the Oregon border. There were limited infestations of Mormon crickets in Adams and Washington Counties. In eastern Idaho, infestations continued to occur in Oneida, Power and Bannock Counties. Control activities have decreased for the second year in a row with fewer calls for assistance on Mormon cricket infestations.

The long-legged cricket, *Anabrus longipes*, was found in Latah and Benewah Counties. *A. longipes*, a sibling species to the Mormon cricket, has not been found in Idaho for several years. This species rarely reaches high densities and is considered to be less damaging than the Mormon cricket.

Summary of ISDA Program

In 2008, ISDA continued to suppress outbreaks of grasshopper and Mormon crickets statewide. Over 470 landowners in twenty-seven counties received assistance in the form of bait or cost-share spray projects. A total of 247,838 lbs. of bait was distributed to private landowners, an increase of 58,880 lbs. from the bait distributed in 2007. One cost-share project protected 1,592 acres from a grasshopper infestation in Valley County with ISDA assistance of \$9,823.50 to cover 2/3 of the treatment costs. The remaining 1/3 of the cost was paid by the private landowners. In addition, ISDA protected 194 acres of impacted state and county lands primarily along county road rights-of-way.

2008 – ISDA APPLICATION COST SHARE PROJECTS FOR PRIVATE LAND OWNERS FOR GRASSHOPPER SUPPRESSION

Project / Location	Acres Treated	Total Protected Acres*	Insecticide	Cost to ISDA (2/3)	Cost to Private Landowner (1/3)	Total Project Cost	Cost Per Acre Treated
Valley County	1,592	1,592	Malathion ULV	\$9,823.50	\$4,902.50	\$14,726	\$9.25

ISDA 2008 CARBARYL GROUND BAITING TREATMENTS ON COUNTY ROAD RIGHT OF WAYS AND STATE LANDS

Owyhee	3,500 lbs.	169 Acres
Cassia	250 lbs.	25 Acres
Total	3,750 lbs.	194 Acres

MULTI-YEAR SUMMARY OF CARBARYL BAIT TREATMENTS ON COUNTY ROAD RIGHT OF WAYS AND STATE LANDS

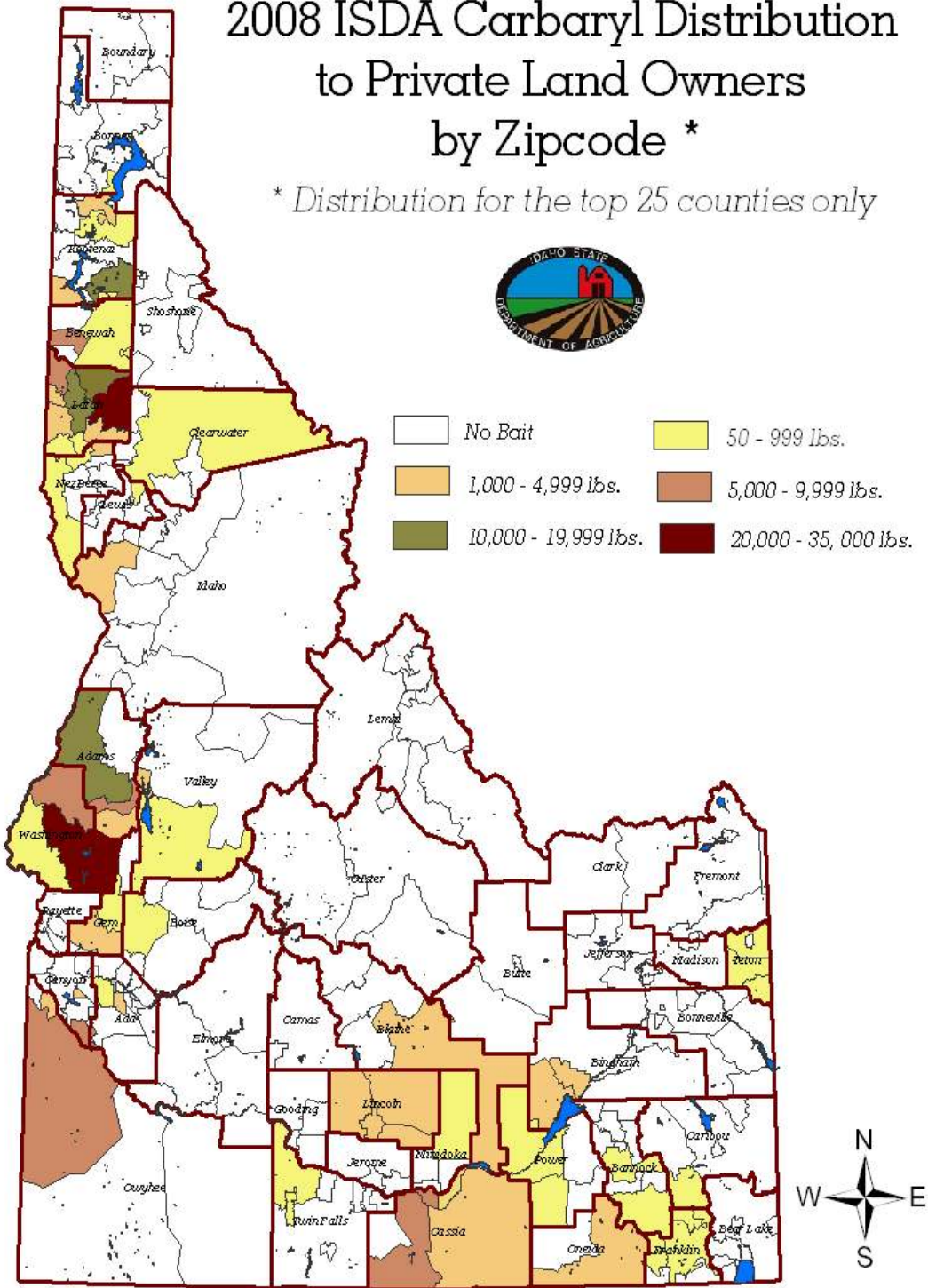
Year	Total Pounds Applied	Acres Treated
2005	12,175	1,218
2006	6,612	661
2007	3,906	340
2008	3,750	194

2008 - ISDA BAIT DISTRIBUTIONS TO PRIVATE LANDOWNERS FOR MORMON CRICKET AND GRASSHOPPER SUPPRESSION

Rank	County	Carbaryl Bait Distributed (lbs)	Number of Distributions
1	Latah	73,900	131
2	Washington	31,250	42
3	Adams	26,150	68
4	Cassia	20,500	25
5	Kootenai	20,500	35
6	Owyhee	18,238	42
7	Elmore	10,500	4
8	Camas	9,250	5
9	Benewah	8,900	12
10	Lincoln	4,550	9
11	Oneida	4,350	28
12	Bingham	3,600	8
13	Valley	3,100	8
14	Gem	2,500	1
15	Ada	2,100	2
16	Blaine	1,950	2
17	Power	1,250	12
18	Idaho	1,000	1
19	9 Other Counties	4,250	35
Totals	27 Counties	247,838	470

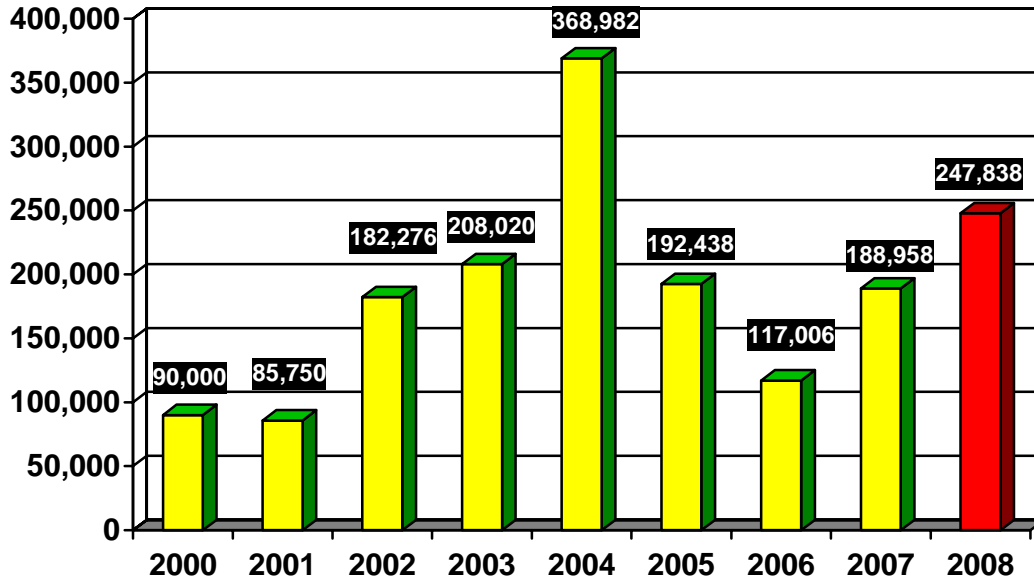
2008 ISDA Carbaryl Distribution to Private Land Owners by Zipcode *

* Distribution for the top 25 counties only



Darcy Hechtner

ISDA GRASSHOPPER AND MORMON CRICKET SUPPRESSION PROGRAM
POUNDS OF CARBARYL BAIT DISTRIBUTED TO PRIVATE LANDOWNERS 2000-2008



ISDA GRASSHOPPER/MORMON CRICKET PROGRAM - MAJOR COOPERATORS

During the 2008 season the following cooperators provided significant help in bait distributions and overall program delivery:

- University of Idaho, Extension Service, Adams County
- University of Idaho, Extension Service, Bannock County
- University of Idaho, Extension Service, Benewah County.
- University of Idaho, Extension Service, Cassia County
- University of Idaho, Extension Service, Franklin County
- University of Idaho, Extension Service, Latah County
- University of Idaho, Extension Service, Nez Perce County
- University of Idaho, Extension Service, Oneida County
- Randy Rowe Trucking Company, Twin Falls, ID.
- Boise County Road Department, Gardena, ID.
- Long Valley Farm Services, Donnelly, ID.
- Midvale Phone Company, Midvale, ID.
- Primeland Cooperative – Grangeville, ID.
- Primeland Cooperative – Lewiston, ID.
- Primeland Cooperative – Moscow, ID.

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