



Idaho State Department of Agriculture 2009 Grasshopper and Mormon Cricket Suppression Program Summary

Introduction

Grasshoppers and Mormon crickets continue to be one of the most serious pest problems for 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. Forty-three percent or 21.8 million acres in Idaho is classified for use 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 2009 with damage to crop production, gardens and landscapes observed throughout these regions. The southeast and southwest infestations were a mixture of *Melanoplus sanguinipes*, *M. femurrubrum*, *Aulocara elliotti* and *Camnula pellucida* grasshopper species. The infestations found further north in Kootenai and Bonner Counties were dominated by the *Camnula pellucida* grasshopper. The activity in northern Idaho is troubling since this degree and areas of infestation have continued to increase in the past two years. No environmental factors occurred that would significantly reduce the grasshopper numbers from laying eggs this fall for next year. It is reasonable to expect significant grasshopper outbreaks to occur in several areas of the state during the 2010 season.

Summary of Mormon Cricket Survey Results

The Mormon cricket, *Anabrus simplex*, outbreak increased in 2009 compared to 2008. Particularly heavy infestations occurred in Owyhee and Washington Counties. The Owyhee County infestation was primarily along the western slopes and concentrated south of Highway 95 towards the Oregon border. The Washington County infestation was concentrated along the eastern and southern slopes in the Sturgill Mountain drainages of Adams, Keithly, Mann and Monroe Creeks. Infestations declined in the southeastern region of the state, based on fewer calls to ISDA concerning the Mormon cricket. Control activities significantly increased in 2009, compared to 2008, due to the infestations in Owyhee and Washington Counties.

The long-legged cricket, *Anabrus longipes*, was found for the second consecutive year and was located further north in Kootenai County. An unusual outbreak of the shield-backed katydid, of the genus *Stieroxys*, occurred this season in the Rathrum Prairie of northwestern Kootenai County. The probable species was *Stieroxys borealis*, or the boreal grass katydid. Collections and baiting were done in July for this species. A rare find of populations of the coulee cricket, *Peranabrus scabricollis*, was made in 2009. These outbreaks were centered on the Joseph Plains near Canfield and Whiterbird in Idaho County. Collections of *P. scabricollis* were made June 30, 2009. A single specimen of the notable shield bearer, *Apote notabilis*, was found in July within populations of grasshoppers and Mormon crickets in Washington County.

Summary of ISDA Program

In 2009, ISDA continued to suppress outbreaks of grasshopper and Mormon crickets statewide. Over 530 landowners in 26 counties received assistance in the form of bait or cost-share spray projects. A total of 428,000 lbs. of bait was distributed to private landowners, an increase of 180,162 lbs. from the bait distributed in 2008. One cost-share project was conducted to protect 14,955 acres from a grasshopper infestation in Oneida County with ISDA assistance of \$11,515.35 to cover 1/2 of the treatment costs. In addition, ISDA protected 1,446 acres on impacted state lands and county road rights-of-way in Idaho, Owyhee and Washington Counties.

2009 – ISDA APPLICATION COST SHARE PROJECTS FOR PRIVATE LANDOWNERS FOR GRASSHOPPER SUPPRESSION

Project / Location	Acres Treated	Total Protected Acres*	Insecticide	Cost to ISDA (1/2)	Cost to Private Landowner (1/2)	Total Project Cost	Cost Per Acres Protected
Oneida County	7,478	14,955	Dimilin	\$11,515.35	\$11,515.35	\$23,030.70	\$1.54

ISDA 2009 CARBARYL GROUND BAITING TREATMENTS ON COUNTY ROAD RIGHTS-OF-WAY AND STATE LANDS

Idaho	150 lbs.	15 Acres
Owyhee	20,150 lbs.	1,353 Acres
Washington	900 lbs.	78 Acres
Total	21,200 lbs.	1,446 Acres

MULTI-YEAR SUMMARY OF CARBARYL BAIT TREATMENTS ON COUNTY ROAD RIGHTS-OF-WAY AND STATE LANDS

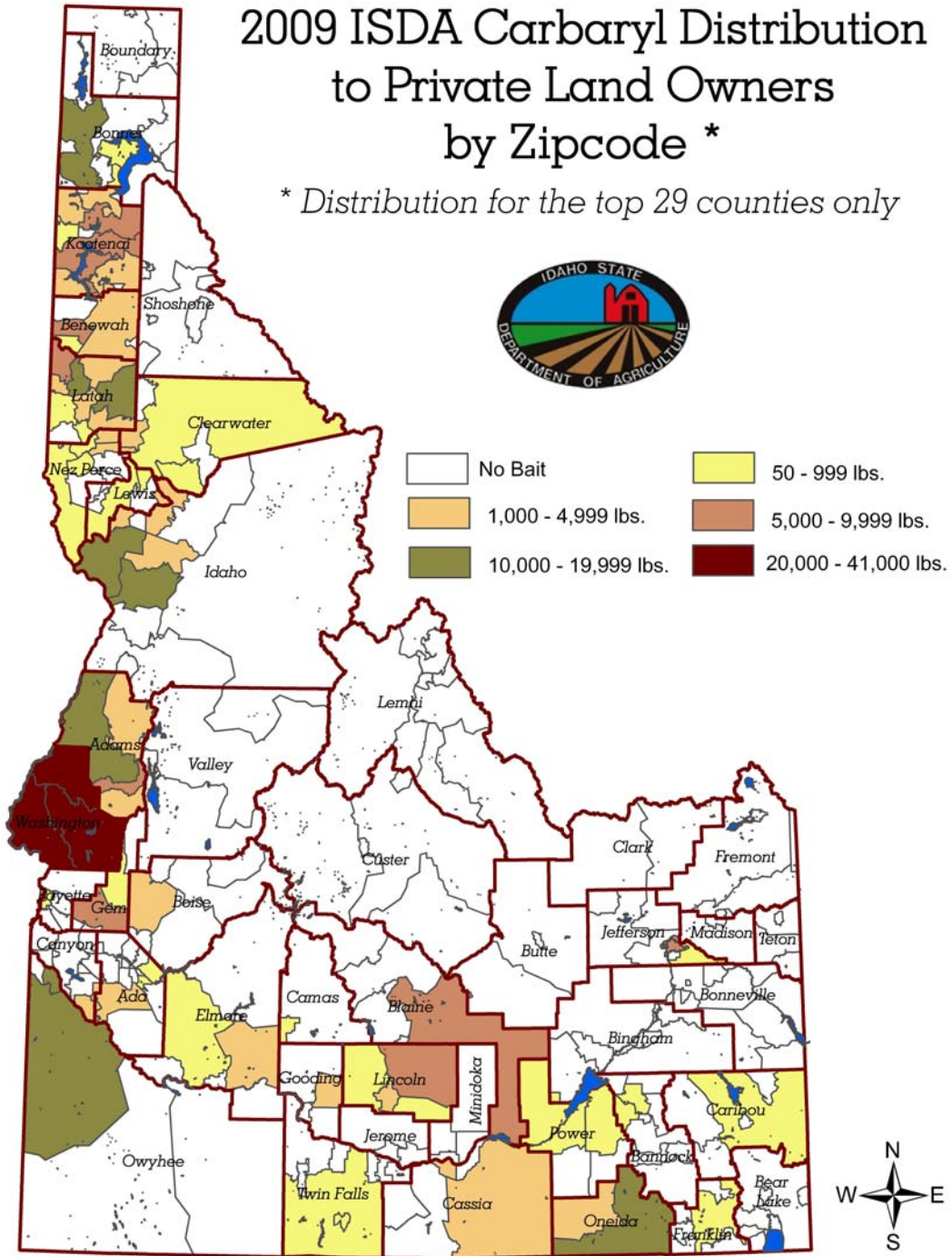
Year	Total Pounds Applied	Acres Treated
2005	12,175	1,218
2006	6,612	661
2007	3,906	340
2008	3,750	194
2009	21,200	1,446

2009 - ISDA BAIT DISTRIBUTIONS TO PRIVATE LANDOWNERS FOR MORMON CRICKET AND GRASSHOPPER SUPPRESSION

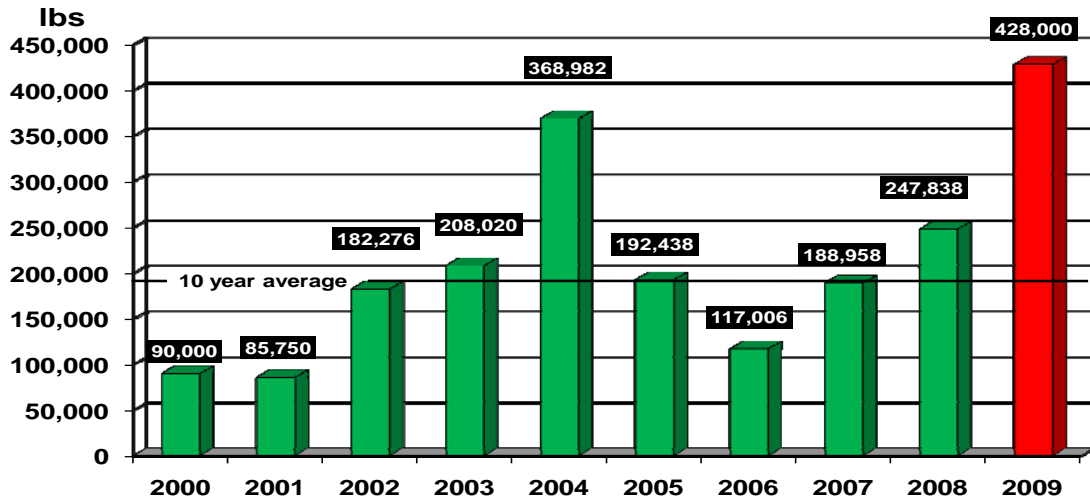
Rank	County	Carbaryl Bait Distributed (lbs)	Number of Distributions
1	Washington	115,650	100
2	Latah	52,700	87
3	Kootenai	50,200	68
4	Idaho	45,050	29
5	Owyhee	39,250	31
6	Adams	26,150	61
7	Bonner	13,650	9
8	Oneida	13,500	38
9	Lincoln	10,950	17
10	Benewah	9,800	12
11	Blaine	9,600	7
12	Boise	6,950	29
13	Elmore	6,600	7
14	Ada	6,250	7
15	Clearwater	4,900	9
16	Gem	4,500	2
17	Cassia	4,150	3
18	Lewis	2,750	2
19	Nez Perce	1,700	6
20	Gooding	1,000	1
21	6 Other Counties	2,700	13
Totals	26 Counties	428,000	538

2009 ISDA Carbaryl Distribution to Private Land Owners by Zipcode *

* Distribution for the top 29 counties only



ISDA, Division of Plant Industries Carbaryl Bait Distribution to Private Land Owners for Grasshopper and Mormon Cricket Suppression



ISDA GRASSHOPPER/MORMON CRICKET PROGRAM - MAJOR COOPERATORS

During the 2009 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, Elmore County
- University of Idaho, Extension Service, Franklin County
- University of Idaho, Extension Service, Jefferson County
- University of Idaho, Extension Service, Latah County
- University of Idaho, Extension Service, Lincoln 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.
- Midvale Phone Company, Midvale, ID.
- Primeland Cooperative – Grangeville, ID.
- Primeland Cooperative – Lewiston, ID.
- Primeland Cooperative – Moscow, ID.
- Wilbur Ellis Company – Potlatch, ID
- Owyhee County Sheriff Office – Murphy, ID
- Pineview Garden Center – Hayden, ID

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