



## Idaho State Department of Agriculture 2012 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 in previous 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

The grasshopper outbreaks in 2012 with damage to crops were very light compared to previous years. In 2012 the cool wet weather from April to late May kept soil temperatures lower than normal for the second consecutive spring. Emergence of first instar grasshoppers were delayed throughout the state and the infestations did not reach the population densities that were common in the years prior to 2011. Grasshopper populations were primarily a mixture of the Migratory Grasshopper, (*Melanoplus sanguinipes*), Twostriped Grasshopper, (*Melanoplus bivittatus*), Valley Grasshopper, (*Oedaleonotus enigma*), and Clearwinged Grasshopper, (*Camnula pellucida*) species. The requests for assistance from private landowners were due to grasshopper infestations instead of cricket or katydids. State lands in Boise and Owyhee Counties were treated by the (ISDA) for grasshopper infestations. The treatment of state lands in Owyhee County was limited due to the extreme fire hazard of 2012. No environmental factors occurred in September or October of 2012 that would reduce the number of grasshoppers laying eggs from the current grasshopper population. The continued reduction in request for evaluations from private landowners in 2011 and 2012 indicates that limited grasshopper outbreaks and damage to crop production from grasshoppers may continue into the 2013 growing season.

### Summary of Mormon Cricket Survey Results

The Mormon cricket, (*Anabrus simplex*), outbreaks continued to decrease in 2012 in comparison to 2011. No request for assistance from private landowners due to Mormon cricket infestations were received at ISDA in 2012. Scouting of state lands by ISDA personnel did not find any Mormon cricket infestations that met the criteria to consider treatment of state lands.

### Summary of ISDA Program

In 2012, ISDA continued to suppress outbreaks of grasshoppers. No suppression of Mormon crickets and related katydids were necessary in 2012. Forty-two private landowners in 15 counties received assistance in the form of 35,550 lbs. of bait valued at \$28,440 in 2012, a decrease of 56,600 lbs. in bait distributed in 2011 to private landowners. No cost-share spray projects were conducted in 2012 for this program. In addition, ISDA protected 267 acres on impacted state lands in Boise and Owyhee Counties. For additional information, go to the ISDA website [www.agri.idaho.gov](http://www.agri.idaho.gov) and search under the Plants and Insects tab for the Grasshopper/Mormon Cricket Program.

**2012 COST-SHARE PROJECTS WITH PRIVATE LANDOWNERS FOR GRASSHOPPER SUPPRESSION – NONE CONDUCTED IN 2012**

<b>Project Location</b>	<b>Acres Treated</b>	<b>Total Protected Acres</b>	<b>Insecticide</b>	<b>Cost to ISDA (1/2)</b>	<b>Cost to Private Landowner (1/2)</b>	<b>Total Project Cost</b>	<b>Cost Per Acres Protected</b>
<b>Totals</b>	0	0		0	0	0	

**2012 CARBARYL GROUND TREATMENTS ON COUNTY ROAD RIGHTS-OF-WAY AND STATE LANDS**

Boise	250 Lbs.	24 Acres
Owyhee	2,400 lbs.	243 Acres
<b>Total</b>	<b>2,650 lbs</b>	<b>267 Acres</b>

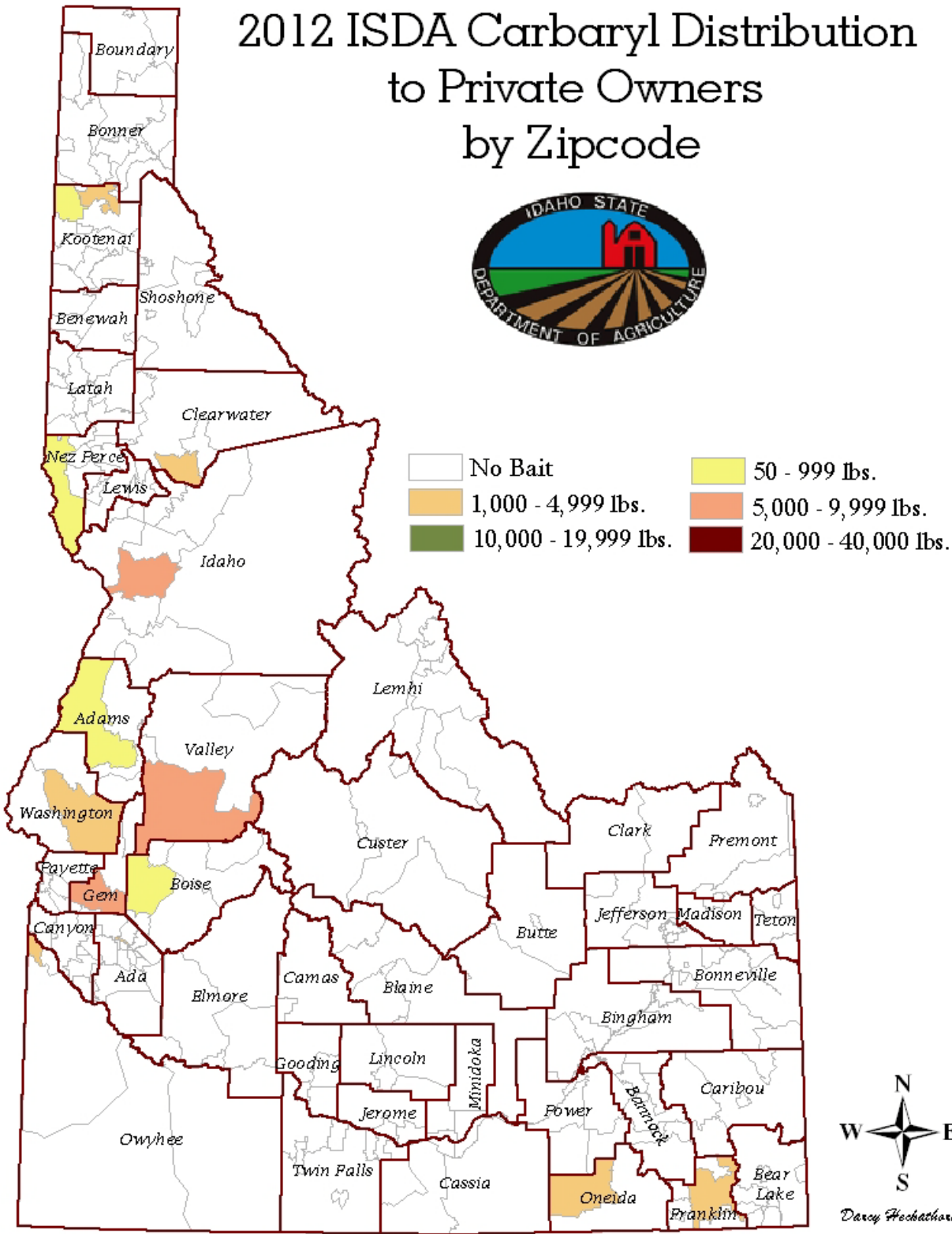
**MULTI-YEAR SUMMARY OF CARBARYL TREATMENTS ON COUNTY ROAD RIGHTS-OF-WAY AND STATE LANDS**

<b>Year</b>	<b>Total Pounds Applied</b>	<b>Acres Treated</b>
2005	12,175	1,218
2006	6,612	661
2007	3,906	340
2008	3,750	194
2009	21,200	1,446
2010	4,300	428
2011	900	92
2012	2,650	267

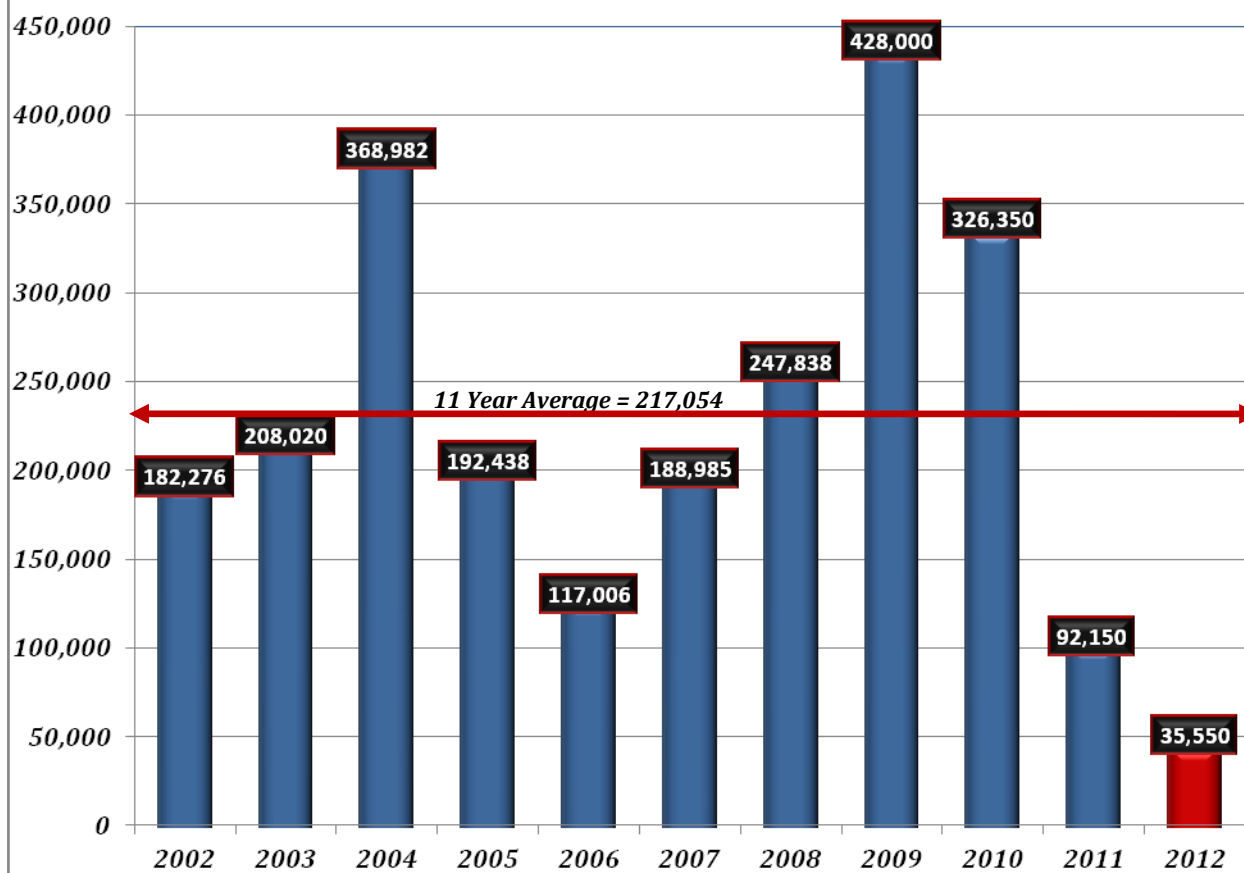
**2012 BAIT DISTRIBUTIONS TO PRIVATE LANDOWNERS FOR GRASSHOPPER SUPPRESSION**

<b>Rank</b>	<b>County</b>	<b>Carbaryl Bait Distributed (lbs)</b>	<b>Number of Distributions</b>
1	Valley	8,850	8
2	Idaho	7,850	9
3	Gem	5,000	2
4	Ada	3,550	1
5	Clearwater	2,500	6
6	Washington	2,100	2
7	Franklin	1,500	5
8	Owyhee	1,200	1
9	Bonner	1,050	2
10	Oneida	1,000	1
11	Bannock	500	1
12	Adams	150	1
13	Boise	100	1
	Kootenai	100	1
	Nez Perce	100	1
<b>Totals</b>	<b>15 Counties</b>	<b>35,550</b>	<b>42</b>

# 2012 ISDA Carbaryl Distribution to Private Owners by Zipcode



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



### **MAJOR COOPERATORS FOR THE GRASSHOPPER/MORMON CRICKET PROGRAM**

During the 2012 season, the following cooperators provided significant help in bait distributions and overall program delivery:

- University of Idaho, Extension Service, Elmore County
- University of Idaho, Extension Service, Franklin County
- Randy Rowe Trucking Company, Twin Falls, ID.
- Primeland Cooperative, Grangeville, ID.

#### **Program Contacts:** ISDA, Plant Industries Division

Dick Lawson, Program Specialist, [dick.lawson@agri.idaho.gov](mailto:dick.lawson@agri.idaho.gov); 208.332.8620

Garry West Program Manager, [garry.west@agri.idaho.gov](mailto:garry.west@agri.idaho.gov); 208.736.2195

Mike Cooper, Bureau Chief, [mike.cooper@agri.idaho.gov](mailto:mike.cooper@agri.idaho.gov), 208.332.8620

Breann Hipwell, Technical Records Specialist, [breann.hipwell@agri.idaho.gov](mailto:breann.hipwell@agri.idaho.gov); 208.332.8650