

IDAHO STATE DEPARTMENT OF AGRICULTURE

GRASSHOPPER & MORMON CRICKET CONTROL

2021

PROGRAM SUMMARY



INVASIVE
SPECIES

OF
IDAHO



Introduction

Although grasshoppers and Mormon crickets are a natural part of Idaho's ecosystem, under the right environmental conditions their population densities can reach levels that result in negative economic and environmental impacts. These impacts have labeled grasshoppers and Mormon crickets as some of the worst agricultural pests in Idaho. Due to the significant historical losses caused by grasshopper and Mormon crickets to Idaho's agriculture industry, The Idaho State Department of Agriculture (ISDA) implemented the Grasshopper and Mormon Cricket Control Program in 2004 to provide qualifying landowners with mitigation assistance on private range and croplands throughout the state. Since the introduction of the program, ISDA has distributed over 3 million pounds of Carbaryl insecticide bait in an effort to mitigate Idaho's agricultural losses.

Background

The Grasshopper and Mormon Cricket Control Program provides landowner assistance on a case-by-case basis, to those landowners who request ISDA assistance and are actively experiencing grasshopper or Mormon cricket infestations on qualified agricultural use lands. The assistance provided by the program to mitigate the damage comes in the form of 5% Carbaryl insecticide bait or a pre-approved reimbursement for insecticides purchased and applied by the landowner, for situations where Carbaryl bait is not the most effective control method. The management and timely control of grasshopper and Mormon cricket populations are key to the success of the program. Based on annual surveys conducted by The U.S. Department of Agriculture, Animal and Plant Health Service (USDA-APHIS), Idaho has experienced very serious pest outbreaks in years past, and 2021 was no exception. The program received a record number of landowner assistance requests spanning across twenty-five Idaho counties, and provided assistance, by way of 5% Carbaryl bait or insecticide reimbursements, to treat approximately 28,303 acres* of agricultural land in Idaho.

*5% Carbaryl bait treatment acreages are calculated using the recommended rate of 10lbs./acre.

Program Updates

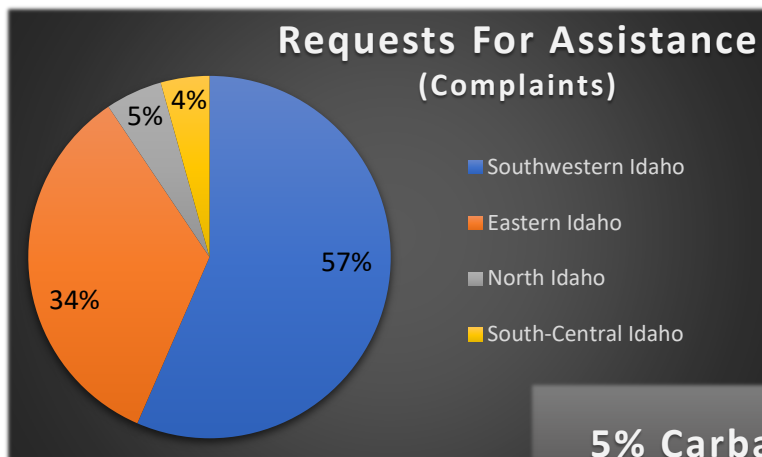
This winter, the ISDA grasshopper/Mormon cricket program wished a happy retirement to the long-time program specialist, Dan Safford. In mid-April, Kahla Montrose stepped into her new role as the program specialist. Kahla will continue to work closely with partnering agencies to keep agricultural damage caused by grasshoppers and Mormon crickets to a minimum.



In addition, she has plans to integrate an educational component into the program to help landowners control grasshoppers and Mormon crickets on their land prior to them causing damage.

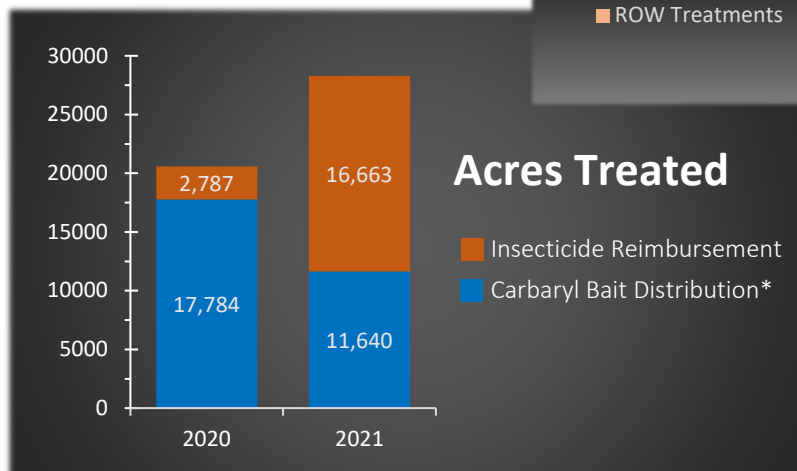
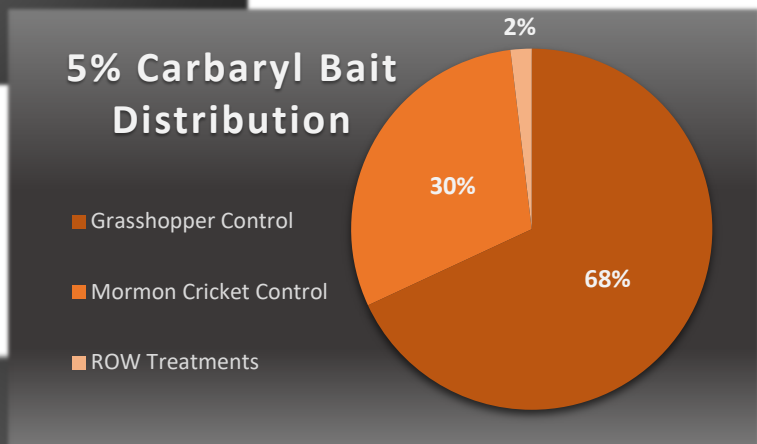
Program Accomplishments

The program received 276 landowner requests for assistance that resulted in 114,200 lbs. of bait distributed to landowners in 25 counties. The bait distribution comparison between 2020 and 2021 were unique in that there was a significant increase in requests for assistance yet a decrease in the total amount of bait distributed. This can be explained by the substantial increase in landowner treatments through the insecticide reimbursement option, from \$63,906.82 in 2020 to \$151,980.45 in 2021. In situations where Carbaryl bait is not the most effective control method, ISDA may reimburse landowners for pre-approved insecticides and adjuvants purchased and applied on their own. In 2021, 16,633 acres were treated for grasshoppers through the reimbursement program.



Requests for Mormon cricket assistance started to come in the first week of April, tapering off in early June. Grasshopper requests started the first week of May and held strong through July and into early August.

The majority of the Carbaryl bait distributed to landowners was used for grasshopper control.



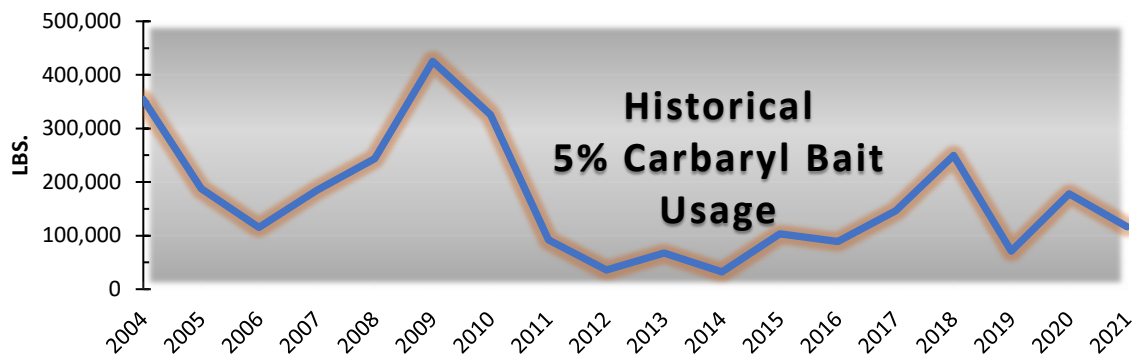
**5% Carbaryl bait treatment acreages are calculated using the recommended rate of 10lbs./acre.*

Additionally, program staff were able to scout 140 sites statewide and conduct surveys for both grasshoppers and Mormon crickets simultaneously. Public reports as well as survey data indicated the need to conduct a Right of Way treatment on 42 miles of Highway 51, located in Owyhee County.

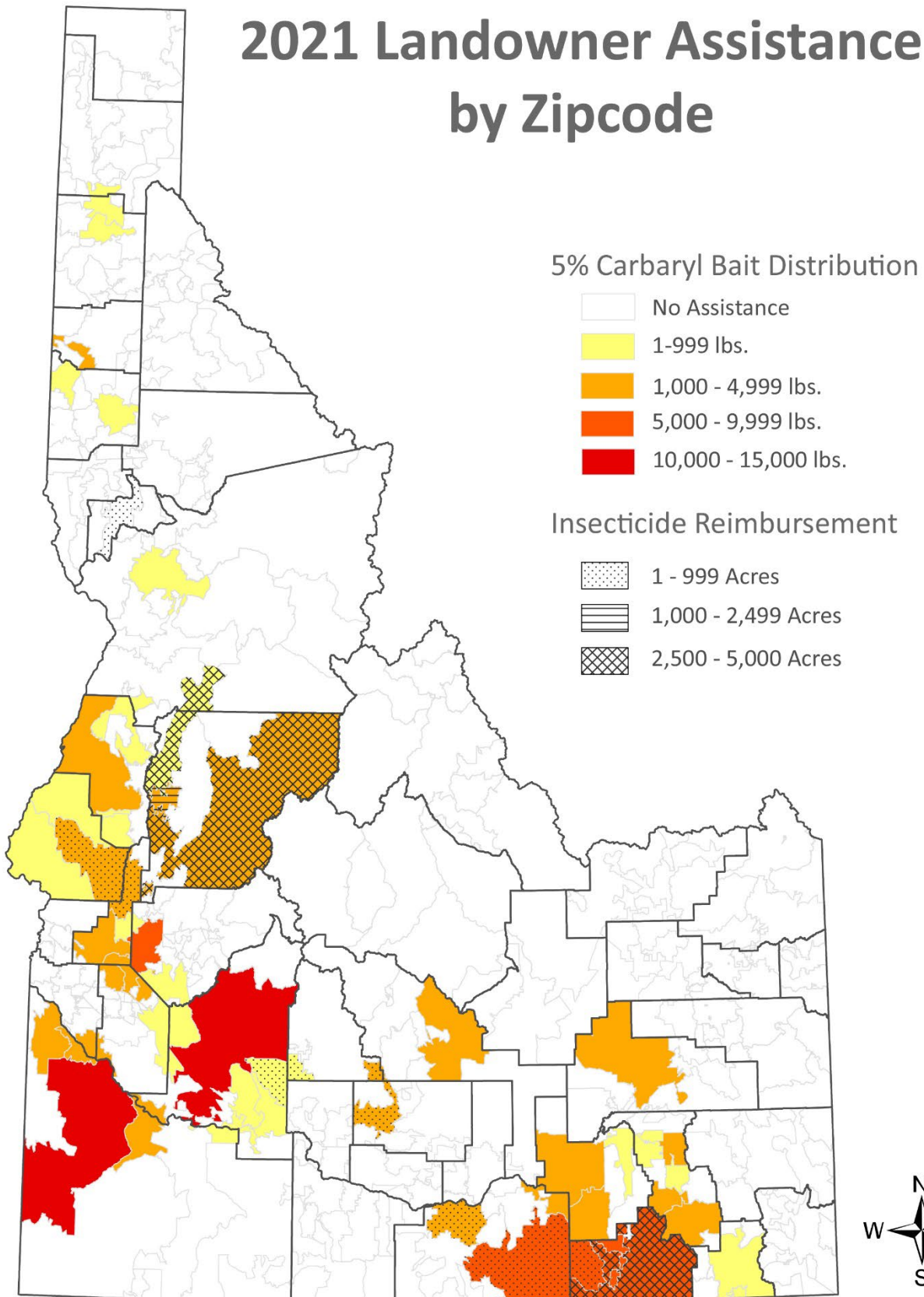
In summary, the overall cost of insecticides to assist landowners and mitigate roadway hazards statewide increased from \$225,435.46 in 2020 to \$267,100.05 in 2021.

Summary of Insecticide Treatments Statewide

Method of Application	Lbs. (\$0.99/lb)	Value
5% Carbaryl bait, landowner application, grasshopper control	79,240	\$78,368.36
5% Carbaryl bait, landowner application, Mormon cricket control	34,960	\$34,575.44
Total Private	114,200	\$112,943.80
5% Carbaryl bait, ISDA State/ROW application, grasshopper control	0	\$0
5% Carbaryl bait, ISDA State/ROW application, Mormon cricket control	2,200	\$2,175.80
Total 5% Carbaryl bait distributed	116,400	\$115,119.60
Landowner reimbursement, grasshopper & Mormon cricket control	16,663.2 (acres treated)	\$151,980.45
Total cost of all treatments	—	\$267,100.05

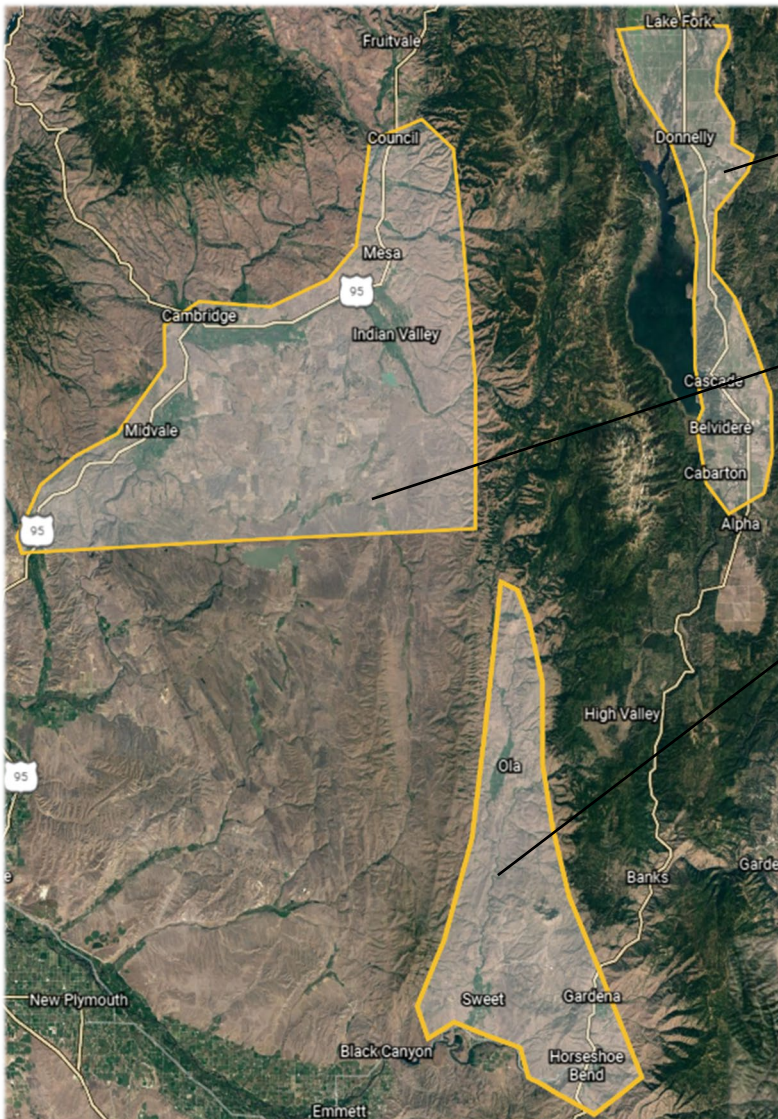


2021 Landowner Assistance by Zipcode



Outbreak Areas

When severe grasshopper or Mormon cricket outbreaks occur, it is crucial to respond in a timely matter to prevent total loss of range and croplands. In these situations, the ISDA may declare specific geographic areas as outbreak areas, allowing for a swifter response. In 2021, ISDA declared 4 geographic areas as outbreak areas.



The Valley County Outbreak Area: from Lake Fork south to Smiths Ferry and East-West to the Forest Service boundaries.

The Washington County/Adams County Outbreak Area: from Council south to Crane Creek reservoir and ~1 mile west of Hwy 95 to ~3 miles east of Indian Valley rd.

The Boise County/Gem County Outbreak Area: from Horseshoe Bend/Hwy 52 north along the FS boundary on the eastern and northern boundaries and along the foothills on the western boundary.

The Oneida County/Bannock County Outbreak Area: all of Oneida Co and the portions of Bannock Co to include McCammon south to Swanlake.



Training & Public Outreach

- Attended grasshopper biology and Treatment training with Scott Schell, University of Wyoming's Extension Entomology Specialist.
- Participated in a landowner meeting in Jordan Valley to discuss ISDA's program and inform Idaho landowners on how to receive grasshopper and Mormon cricket control assistance in 2022.
- Attended two virtual meetings with partnering agencies and land managers to discuss how treatment efforts on sage grouse habitat can be accomplished moving forward.
- Redesigned Landowner Assistance Request Form (Formerly, Complaint Form) & incorporated additional educational materials (Landowner Assistance Handbook, Reimbursement Handbook, FAQs page).



Major Program Cooperators

The great success of the Grasshopper and Mormon Cricket Control Program wouldn't be possible without the partnerships we have forged over the years. The following cooperators provided significant help in fielding landowner assistance requests, bait storage and distribution, and overall program delivery:

- Elmore County Pest Abatement
- Gem County Weed Control
- Idaho Transportation Department
- Oneida County Road & Bridge
- Payette County Weed Control
- Pineview Horticulture Services, LLC
- Simplot Partners
- S & P Enterprises
- University of Idaho, Extension Service
- USDA-APHIS

