

# FEDERAL RANGELAND GRASSHOPPER & MORMON CRICKET SUPPRESSION PROGRAM -- IDAHO 2009

## SUMMARY OF GRASSHOPPER SURVEY RESULTS

Significant grasshopper infestations were noted across Idaho. Species composition in outbreak areas consisted primarily of *Melanoplus sanguinipes*, *Melanoplus femur-rubrum*, *Aulocara ellioti*, *Oedaleonotus enigma*, and *Camnulla pelucida*. One factor that may mitigate a possible outbreak in 2010 is the prevalence this summer of summit disease and mortality associated with it.

## SUMMARY OF MORMON CRICKET SURVEY RESULTS

In Southwestern Idaho, the Mormon Cricket outbreak in Owyhee County continued in 2009. The outbreak in Washington County appears to have increased greatly over the 2008 level. A few bands were noted on Bennet Mountain in Elmore County and on the Boise front in Ada County. In Eastern Idaho bands of Mormon Crickets were noted near Walker in Madison County.

## SUMMARY OF COMPLAINTS AND TREATMENTS

U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine (PPQ) received a total of 85 official complaints or requests for assistance concerning grasshoppers and Mormon Crickets. A majority of these were associated with private pastures or croplands. Many infestations appeared to correlate with fence rows and unplowed pivot corners. The US Forest Service reported that Mormon Crickets consumed valuable Ponderosa Pine seedlings in Washington County. Mormon Crickets also were found damaging a mine reclamation/reseeding project in Owyhee County.

PPQ conducted 8 treatment projects on federal land in response to these complaints (some individual projects were in response to more than one complaint). All these treatments were on rangelands managed by Bureau of Land Management or the US Forest Service and consisted of application of 10 lbs/acre of 5% carbaryl bait or .75 ounces of Dimilin per acre. PPQ treated a total of 24,180 acres in Idaho in 2009. A total of 18,190 acres were treated with bait and 5,270 acres were treated with Dimilin 21. A total of 6,945 acres were treated for Grasshoppers and 17,235 acres were treated for Mormon Crickets. All treatments utilized a RAATS or skip-swath methodology.

County	Acres	GH/MC	Pesticide	Application
Owyhee	2180	MC	Bait	Ground
Owyhee	6000	MC	Bait	Aerial
Washington	7805	MC	Bait	Aerial
Gem/Payette	5270	GH	Dimilin	Aerial
Twin Falls	1500	GH	Bait	Aerial
Elmore	1250	GH	Bait	Aerial
Butte	100	GH	Bait	Ground
Bingham	75	GH	Bait	Ground

## **SUMMARY OF ENVIRONMENTAL DECISIONMAKING**

The Environmental Impact Statement which informs decisions on the Federal Rangeland Grasshopper Suppression Program in seventeen western states is available at:

<http://www.aphis.usda.gov/ppd/es/gh.html>

PPQ conducted scoping in November 2008 and received a total of 3 responses from private citizens, organizations, and governmental units. The responses expressed concern about the damage that grasshoppers and Mormon crickets would cause if they were not controlled and concern about potential adverse effects of insecticides. PPQ considered all the comments and prepared four environmental assessments, one for Mormon crickets and three for grasshoppers. The Environmental Assessments which informed decisions about the 2009 program in Idaho are available at:

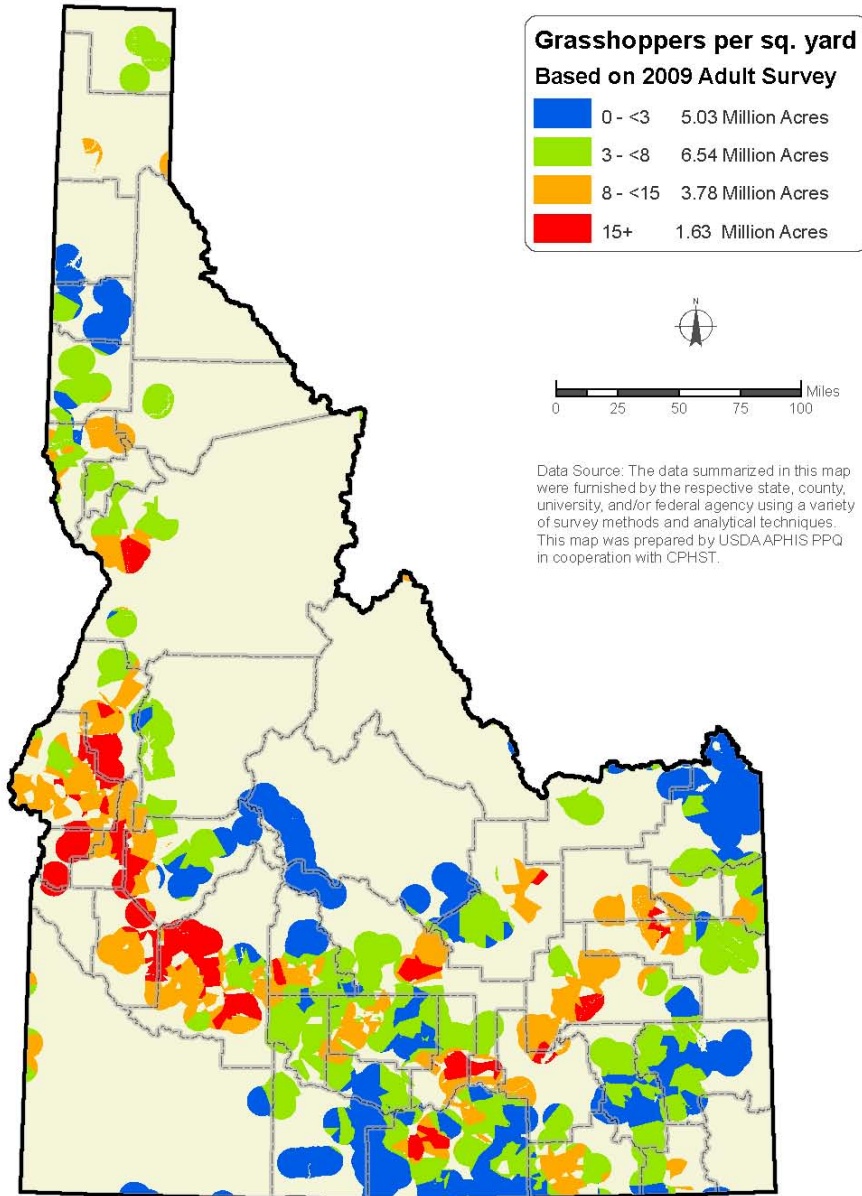
[http://www.agri.state.id.us/Categories/PlantsInsects/GrasshopperMormonCricketControlProgram/ghprogramenvirodocs\\_pubs\\_reports.php](http://www.agri.state.id.us/Categories/PlantsInsects/GrasshopperMormonCricketControlProgram/ghprogramenvirodocs_pubs_reports.php)

PPQ analyzed only carbaryl bait and diflubenzuron spray for the Mormon cricket program. In normal outbreaks, carbaryl bait can be very effective in suppressing Mormon crickets. Because Mormon crickets are flightless, travel significant distances on the ground from the places where they hatch to the places where they may damage crops or other resources, and move in large bands which can be easily detected by the general public as well as trained scouts; they can be intercepted with bait treatments applied by air or ground. However, the logistical problems associated with application of the bait at 10 lbs./acre preclude its exclusive use in very large outbreaks. Diflubenzuron spray would be applied by air with 0.75 oz of diflubenzuron in 30 oz. water and oil carrier. Because lesser amounts of the spray are required for suppression, more acreage can be covered more quickly with spray than with bait. Carbaryl bait and diflubenzuron pose less risk to non-target insect species than some other insecticides.

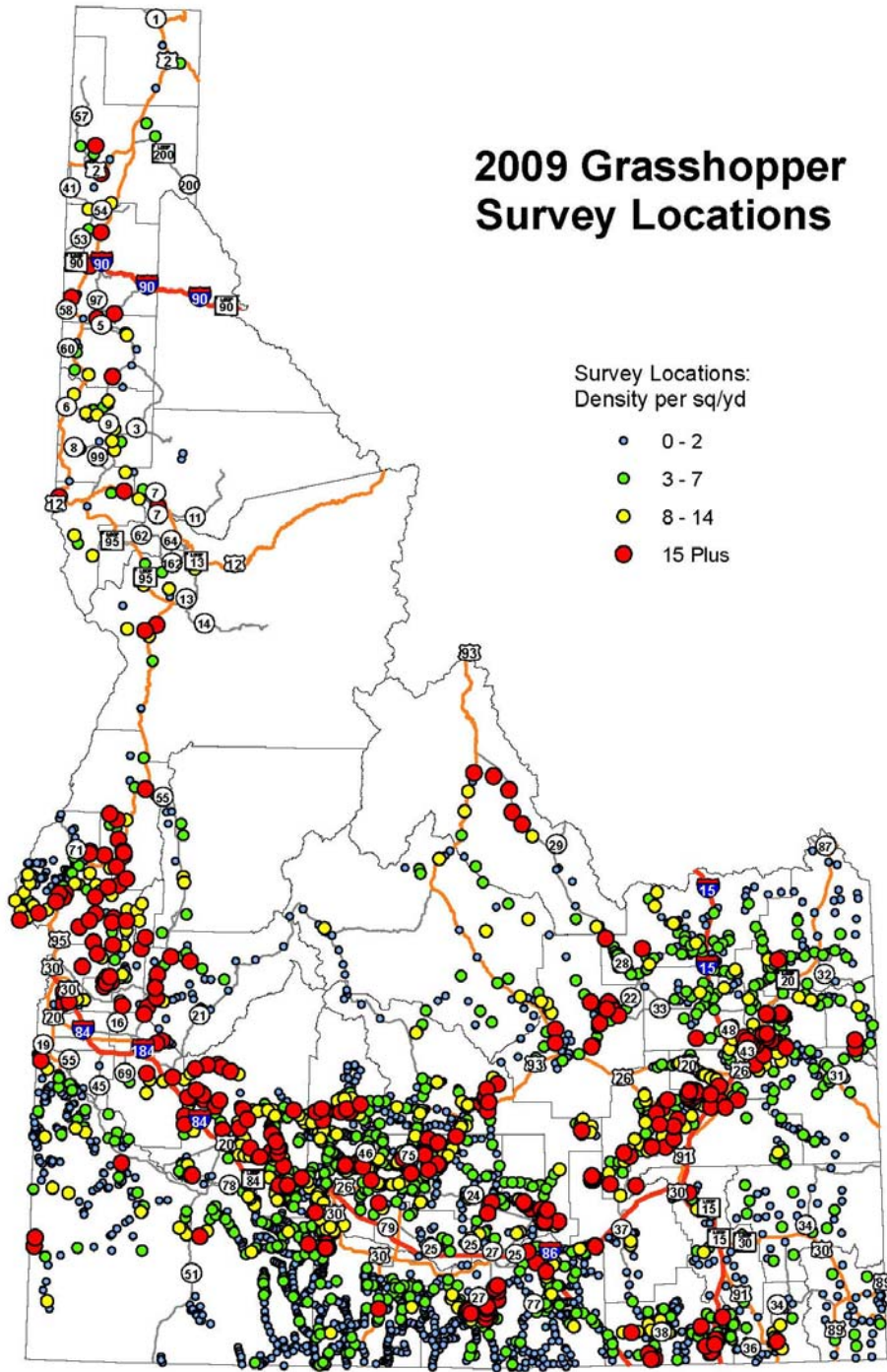
Because grasshoppers can fly, may hatch in very close proximity to crops, and are not readily detected by many members of the public until they have reached maturity; PPQ analyzed malathion spray as well as carbaryl bait and diflubenzuron sprays for the grasshopper programs. Malathion is quicker acting than carbaryl bait or diflubenzuron and would have been applied at 6 oz/acre. However, malathion has a broad spectrum of insecticidal activity and would only be applied if carbaryl bait or diflubenzuron treatments would not be expected to adequately suppress the grasshopper outbreak.

In response to stakeholder expressions of concern about exposure to pesticides, PPQ initiated a program which allows concerned parties to request federally managed rangeland near their homes or property be excluded from treatments for grasshoppers or Mormon crickets. There were no applicants for the program.

## 2009 Rangeland Grasshopper Hazard Idaho



## 2009 Grasshopper Survey Locations



## 2009 Mormon Cricket Survey Locations

