

FEDERAL RANGELAND GRASSHOPPER & MORMON CRICKET SUPPRESSION PROGRAM -- IDAHO 2010

SUMMARY OF GRASSHOPPER SURVEY RESULTS

Significant grasshopper infestations were noted across Southern Idaho. Species composition in outbreak areas consisted primarily of *Melanoplus sanguinipes*, *Melanoplus femur-rubrum*, *Oedaleonotus enigma*, and *Camnulla pelucida*.

SUMMARY OF MORMON CRICKET SURVEY RESULTS

In Southwestern Idaho, the Mormon cricket outbreak in Owyhee County continued in 2010, although much reduced from its apparent peak in 2006. The outbreak in Washington County appears to have decreased over the 2009 level.

SUMMARY OF COMPLAINTS AND TREATMENTS

The U.S. Department of Agriculture (USDA), Animal and Plant Health Inspection Service (APHIS), Plant Protection and Quarantine (PPQ) received a total of 132 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.

PPQ conducted a number of 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. Treatments consisted of the application of 10 lbs/acre of 5% carbaryl bait or .75 ounces of Dimilin per acre. PPQ treated a total of 47,383 acres in Idaho in 2009. A total of 9,790 acres were treated for Mormon crickets and 37,593 acres were treated for grasshoppers. All treatments utilized a RAATS or skip-swath methodology. All treatments were conducted primarily to protect adjacent cropland. Treatments were precluded in the Snake River Birds of Prey National Conservation Area and resultant crop damage was observed. Similarly, treatment blocks were reduced in size to protect the Idaho Dunes Tiger Beetle in Power County.

County	Acres	GH/MC	Pesticide	Application
Owyhee	1290	MC	Bait	Ground
Owyhee	8500	MC	Dimilin	Aerial
Twin Falls	3740	GH	Dimilin	Aerial
Jerome/Lincoln	5644	GH	Dimilin	Aerial
Oneida	1564	GH	Dimilin	Aerial
Power	12427	GH	Dimilin	Aerial
Blaine/Minidoka	13923	GH	Dimilin	Aerial
Butte, Twin Falls, Minidoka	295	GH	Bait	Ground

SUMMARY OF ENVIRONMENTAL DECISIONMAKING

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

http://www.aphis.usda.gov/plant_health/ea/downloads/fgheis.pdf

PPQ conducted scoping in November 2009 and received a total of six 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 2010 program in Idaho are available at:

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.

2010 Survey Results

