

APHIS Rangeland Grasshopper and Mormon Cricket Suppression Program
FY-2015 Treatment Guidelines
Version 2/09/2015

The objectives of the APHIS Rangeland Grasshopper and Mormon Cricket Suppression Program are to 1) conduct surveys in 17 Western States; 2) provide technical assistance to land managers; and 3) when funds permit, suppress economically damaging grasshopper and Mormon cricket outbreaks on Federal, Tribal, State, and/or private rangeland. The Plant Protection Act of 2000 provides APHIS the authority to take these actions.

General Guidelines for Grasshopper / Mormon Cricket Treatments

1. All treatments must be in accordance with:
 - a. the Plant Protection Act of 2000;
 - b. applicable environmental laws and policies such as: the National Environmental Policy Act, the Endangered Species Act, the Federal Insecticide, Fungicide, and Rodenticide Act, and the Clean Water Act (including National Pollutant Discharge Elimination System requirements – if applicable);
 - c. applicable state laws;
 - d. APHIS Directives pertaining to the proposed action;
 - e. Memoranda of Understanding with other Federal agencies.
2. Subject to the availability of funds, upon request of the administering agency or the agriculture department of an affected State, APHIS, to protect rangeland, shall immediately treat Federal, State, or private lands that are infested with grasshoppers or Mormon crickets at levels of economic infestation, unless APHIS determines that delaying treatment will not cause greater economic damage to adjacent owners of rangeland. In carrying out this section, APHIS shall work in conjunction with other Federal, State, Tribal, and private prevention, control, or suppression efforts to protect rangeland.
3. Prior to the treatment season, conduct meetings or provide guidance that allows for public participation in the decision making process. In addition, notify Federal, State and Tribal land managers and private landowners of the potential for grasshopper and Mormon cricket outbreaks on their lands. Request that the land manager / land owner advise APHIS of any sensitive sites that may exist in the proposed treatment areas.
4. Consultation with local Tribal representatives will take place prior to treatment programs to fully inform the Tribes of possible actions APHIS may take on Tribal lands.
5. On APHIS run suppression programs, the Federal government will bear the cost of treatment up to 100 percent on Federal and Tribal Trust land, 50 percent of the cost on State land, and 33 percent of cost on private land. There is an additional 16.15% charged to any funds received by APHIS for federal involvement with suppression treatments.
6. Land managers are responsible for the overall management of rangeland under their control to prevent or reduce the severity of grasshopper and Mormon cricket outbreaks. Land managers are encouraged to have implemented Integrated Pest Management Systems prior to requesting a treatment. In the absence of available funding or in the

**APHIS Rangeland Grasshopper and Mormon Cricket Suppression Program
FY-2015 Treatment Guidelines**

4. Do not apply insecticides directly to water bodies (defined herein as reservoirs, lakes, ponds, pools left by seasonal streams, springs, wetlands, and perennial streams and rivers).

Furthermore, provide the following buffers for water bodies:

- 500-foot buffer with aerial liquid insecticide.
- 200 foot buffer with ground liquid insecticide.
- 200-foot buffer with aerial bait.
- 50-foot buffer with ground bait.

5. Instruct program personnel in the safe use of equipment, materials and procedures; supervise to ensure procedures are properly followed.
6. Conduct mixing, loading, and unloading in an approved area where an accidental spill would not contaminate a water body.
7. Each aerial suppression program will have a Contracting Officer's Representative (COR) OR a Treatment Manager on site. Each State will have at least one COR available to assist the Contracting Officer (CO) in GH/MC suppression programs.

NOTE: A Treatment Manager is an individual that the COR has delegated authority to oversee the actual suppression treatment; someone who is on the treatment site and overseeing/coordinating the treatment and communicating with the COR. No specific training is required, but knowledge of the Aerial Application Manual and treatment experience is critical; attendance to the Aerial Applicators Workshop is very beneficial.

8. Each suppression program will conduct environmental monitoring as outlined in the 2015 Environmental Monitoring Plan.

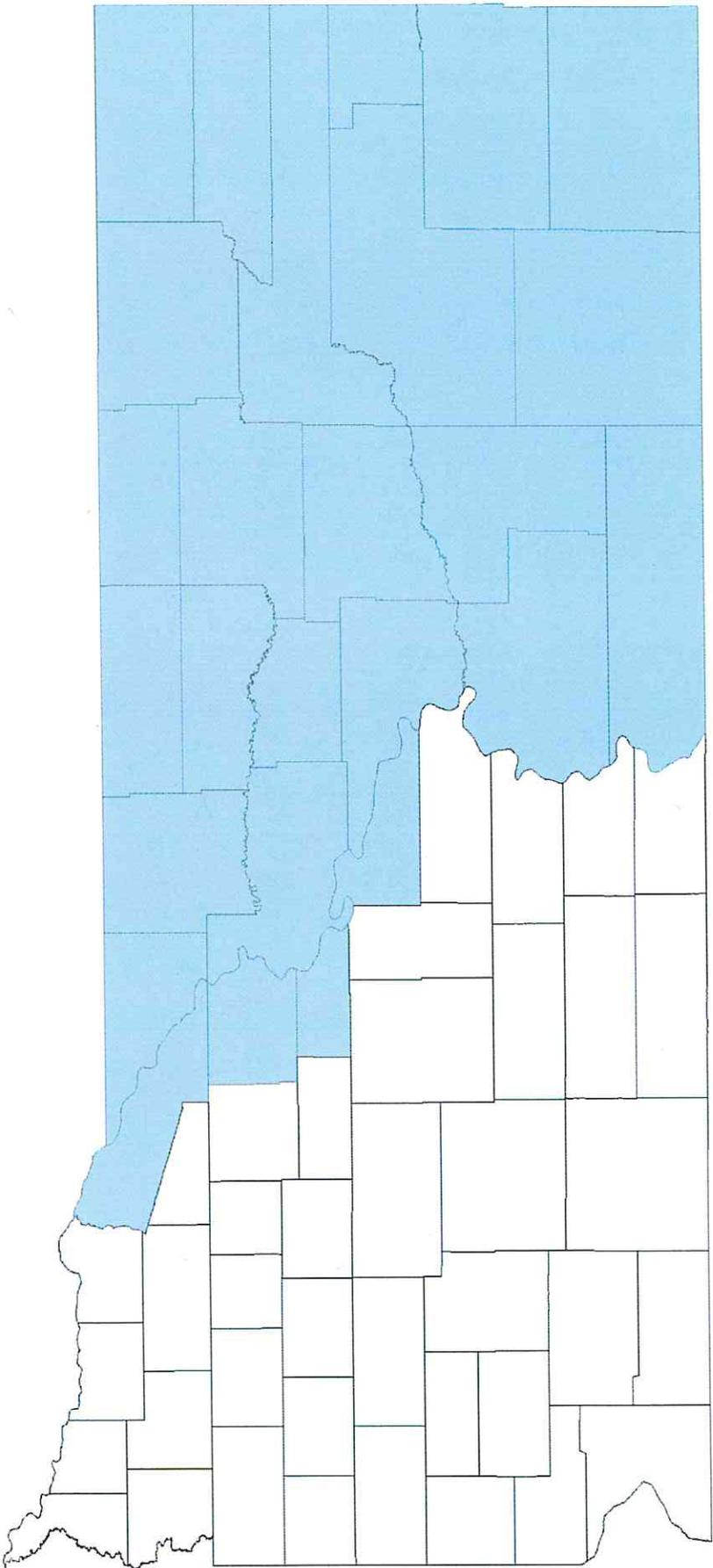
APHIS will assess and monitor rangeland treatments for the efficacy of the treatment, to verify that a suppression treatment program has properly been implemented and assure that any environmentally sensitive sites were protected.

9. APHIS reporting requirements associated with grasshopper / Mormon cricket suppression treatments can be found in the APHIS Grasshopper Program Guidebook:
http://www.aphis.usda.gov/import_export/plants/manuals/domestic/downloads/grasshopper.pdf

SPECIFIC PROCEDURES FOR AERIAL APPLICATIONS

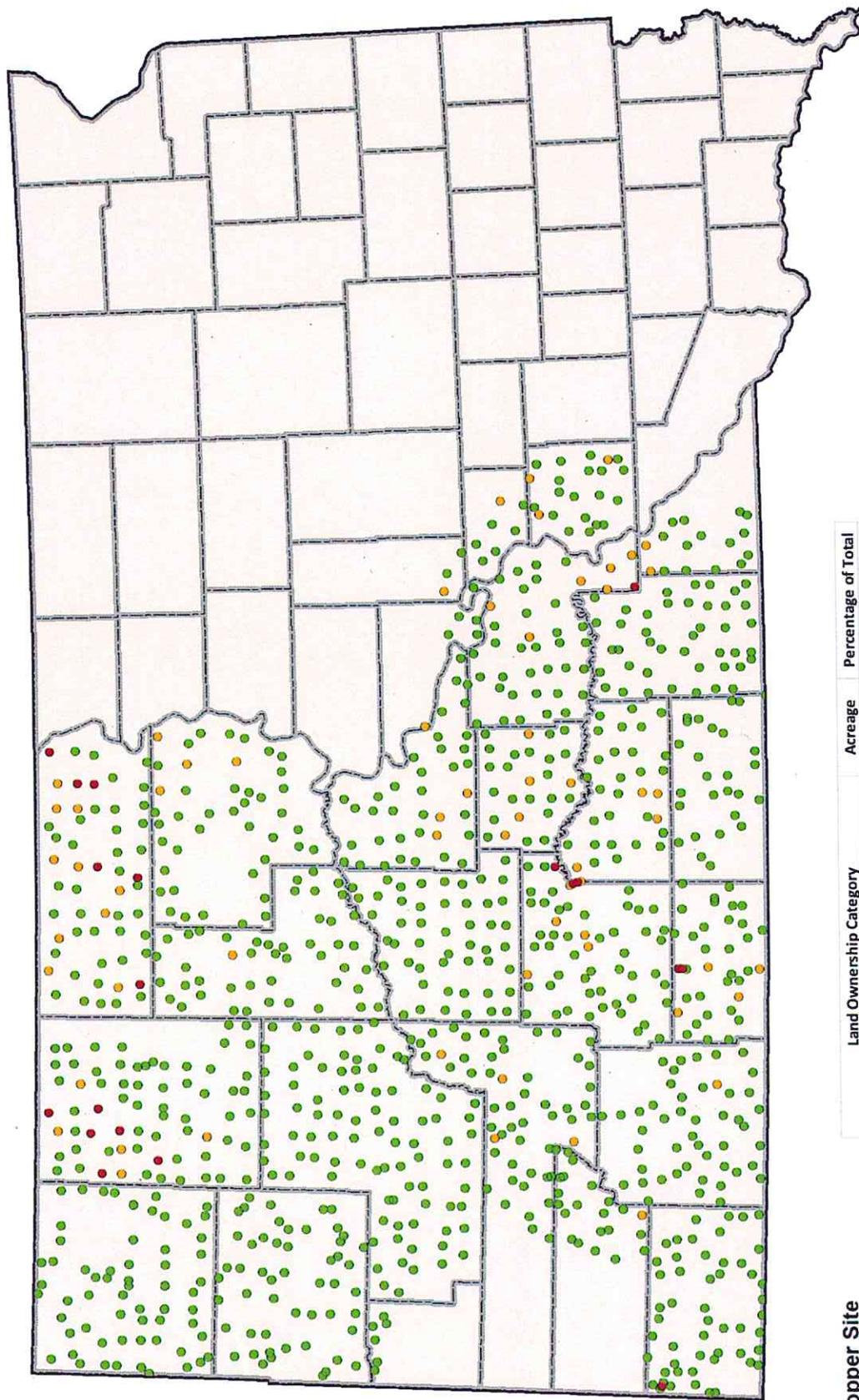
1. APHIS Aerial treatment contracts will adhere to the 2015 Statement of Work.
2. Minimize the potential for drift and volatilization by not using ULV sprays when the following conditions exist in the spray area:

Appendix 2
Environmental Assessment Coverage Area





2014 Adult Grasshopper Density - South Dakota



**Grasshopper Site
(Adult GH per Sq Yd)**

- 0 - 3
- 4 - 7
- 8 or more

Land Ownership Category	Acreage	Percentage of Total
National Grasslands	10,766.1	17.88%
Army Corps of Engineers	716.1	1.19%
Indian Reservations	20,249.0	33.64%
Private	28,465.3	47.29%
Total acreage	60,196.5	100.00%



These data, and all the information contained therein, have been collected by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service (APHIS), or by its cooperators on APHIS' behalf, for restricted use only and is the sole property of APHIS. Data may be disseminated on a need-to-know basis only and must be used for their intended purpose only. All information contained within these data are subject to required Federal safeguards and shall only be shared and/or used consistent with the Trade Secrets Act (18 U.S.C. 1905), the Privacy Act of 1974, as amended (5 U.S.C. 552a), the Freedom of Information Act (5 U.S.C. 552), the confidentiality provisions of the Food Security Act of 1985 (7 U.S.C. 227m), Section 1619 of the Food, Conservation, and Energy Act of 2008 (7 U.S.C. 8791), and other applicable Federal laws and implementing regulations, as well as with the confidentiality or non-disclosure provisions of any other agreement entered into between APHIS and a cooperator.

Data Source: USDA-APHIS PPO South Dakota, ESRI, and US Census Bureau
 Date: 9/3/2014
 Coordinate System: NAD 1983 StatePlane South Dakota South FIPS 4002 Feet

USDA APHIS PPO
 314 Henry Street, Suite 200
 Pierre SD 57501



United States
Department of
Agriculture

Animal Plant Health
Inspection Service

Plant Protection
and Quarantine

314 S. Henry, Suite 200
Pierre, SD 57501
Phone: 605/224-1713
FAX:605/224-0172

March 24, 2015

Subject: Concurrence of 2015 USDA, APHIS, PPQ South Dakota
Rangeland Grasshopper Endangered Species

To: Natalie Gates
Biologist

The U.S. Fish and Wildlife Service concurs with your conclusion that the described project will not adversely affect listed species. Contact this office if changes are made or new information becomes available.

From: Amy Mesman
Domestic Program Coordinator

4/6/15
Date *Amy* *Natalie Gates*
SD Field Supervisor, USFWS

We are seeking your concurrence on the endangered species protection measures as described in the species assessment section of our 2015 Rangeland Grasshopper Environmental Assessment.

As in the past, please consider the following when making your determination for concurrence. Grasshopper outbreaks are cyclical. Our surveys during the 2014 grasshopper season continue to show some of the lowest populations of grasshoppers in the last 20 years. While there is potential for drought conditions and reduced forage availability during this growing season, we are at an advantage with the low populations. As always, when population levels warrant control, control programs are still infrequent. Since 1990, only 14 control programs have been conducted on a total of 165,000 acres. Our programs have ranged from 50 acres to 80,000 acres in 1990 and are geared toward rangeland forage protection. We do not treat cropland.

During our last control program in 2012, we protected 17,212 acres from rangeland grasshopper infestations in Shannon County, South Dakota near Kyle. Of the 17,212 protected, approximately 10,327 were treated with dimilin utilizing the reduced area/agent treatments. Survey following the control program showed efficacy of 90%.

As addressed in our Environmental Impact Statement, we have three chemical control options available to us for grasshopper treatment; dimilin, Malathion and carbaryl in both bait and liquid form. When PPQ conducts a program we pay 100% costs of federal land, 50% of the costs on state land and 33% of the cost on private lands.

We continue to utilize the reduced acre/agent treatment application method known as RAATS or skip swathing when conducting a control program. This method leaves approximately 50% of the intended protected area untreated. Only in the case of a crop protection program would 100% of the area be covered. These programs involve a quarter to half mile buffer treatment on rangeland directly adjacent to agricultural lands to prevent grasshopper migration.



Dimilin is always our preferred choice. Dimilin is a growth regulator, a chitin inhibitor. Based on the mode of action, chemical price and available cost share, dimilin continues to be our first choice when conducting grasshopper control over large areas of rangeland. Dimilin is an environmentally friendly product and has the fewest non target impacts of the three products available for our use.

In regards to crop protection programs, based on the time of year in which these programs typically occur, life stage of the grasshopper and the need to quickly eliminate the threat of grasshopper migration into adjacent lands, Malathion or early treatments of Dimilin would be the preferred options.

Per your request I have updated the threatened and endangered species summaries to include the Rufa Red Knot, Dakota Skipper and Poweshiek Skipperling. The Northern Long Eared Bat remains in the proposed section until a final determination is made in early April. In addition I added information on the interior migratory habits of the Rufa Red Knot which I feel continues to support the no effect determination for this bird.

NLEB listed April 2, 2015 received updated DAW email 4/2/15 WFW

Should the Northern Long Eared bat be listed as endangered, we will amend the document to update its new status. For reference our preferred choice is always Dimilin. Dimilin is particularly safe on mammals as it is a chitin inhibitor. In addition this product, as with all the products we use, is applied using an ultra-low volume formulation. ULV formulations must have open canopies to be applied correctly to the rangeland. Heavy tree or forested areas are avoided because the material has difficulty penetrating the canopy and reaching the ground where it is effective. As you know, outside of forested areas many of our trees are associated with riparian areas which are always buffered due to water. We also do not treat roads. By default, bridge decks that are not associated with water are also buffered along with homesteads or any heavily treed area as we have poor results due to the selected product not reaching the ground.

We are seeking to finalize our environmental documentation and hope to receive concurrence by April 6, 2015. If you should have any questions or concerns please feel free to contact me at 605/224-1713 or via email at amy.mesman@aphis.usda.gov. Thank you.

Sincerely,



Amy Mesman
Domestic Program Coordinator

Enclosure