

Utah Department of Agriculture and Food - Japanese Beetle (JB) Program

Since 1996 UDAF has had a survey and detection program in place to eradicate and/or deter the establishment of JB in Utah. In 2011 a total of 2,898 traps were placed in 28 of Utah's counties; 1,100 of those traps are located within the eradication area of Orem City. In 2011 trapping produced no beetles.

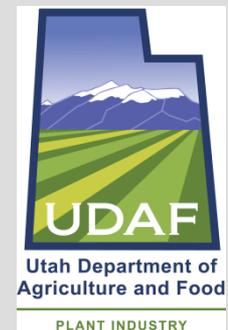
In 2007 UDAF established the JB Decision and Action Committee and declared a state of emergency according to the Insect infestation Act. The committee approved UDAF eradication plans for the JB. Public hearing meetings were held to inform the public and solicit their help in eradicating the JB. Eradication efforts have been successful and treatment continued in 2011 in the Orem City (Utah County) area.

The Utah Department of Agriculture and Food continues to enforce the Rule R68-15. Quarantine Pertaining to Japanese Beetle, (*Popillia Japonica*).

<http://www.rules.utah.gov/publicat/code/r068/r068-015.htm>



<u>Table of Contents</u>	<u>Page</u>
State of Utah Japanese Beetle Quarantine	3-4
Traps Placed by Year	5
Beetles Trapped by Year	6
Summary of Treatment	7
Example of Statistical Analysis	8
Treatment Map by Year	9
2011 Treatment Map	10
Program Summary by Year	11
2011 State Wide Trap Density Map	12



Rule R68-15. Quarantine Pertaining to Japanese Beetle, (Popillia Japonica).

As in effect on November 1, 2010

Table of Contents

R68-15-1. Authority.

A. Promulgated under authority of Subsection 4-2-2-(1)(j) and 4-2-2(1)(i)(ii).

B. Refer to the Notice of Quarantine, Japanese Beetle, (Popillia Japonica), Effective January 4, 1993, issued by Utah Department of Agriculture and Food.

R68-15-2. Pest.

Japanese beetle, *Popillia japonica*, a beetle, family Scarabaeidae, which in the larval state attacks the roots of many plants and as an adult attacks the leaves and fruits of many plants.

R68-15-3. Areas Under Quarantine.

A. The following states have been placed under a general quarantine to prohibit the entry of Japanese Beetle into Utah through the sale of plants and plant products: the entire states of Alabama, Arkansas, Colorado, Connecticut, Delaware, Georgia, Illinois, Indiana, Iowa, Kansas, Kentucky, Maine, Maryland, Massachusetts, Michigan, Minnesota, Missouri, Nebraska, New Hampshire, New Jersey, New Mexico, New York, North Carolina, Ohio, Oklahoma, Pennsylvania, Rhode Island, South Carolina, Tennessee, Texas, Vermont, Virginia, West Virginia, Wisconsin, and the District of Columbia.

B. The same general quarantine shall apply to the following states in provinces of Canada:

1. In the Province of Ontario: Lincoln, Welland, and Wentworth.

2. In the Province of Quebec: Missisquoi and St. Jean.

C. Any areas not mentioned above where Japanese Beetle has been found or known to occur, shall also be placed under this same general quarantine.

R68-15-4. Articles and Commodities Under Quarantine.

A. The following are hereby declared to be hosts and possible carriers of all stages of the Japanese beetle:

1. Soil, humus, compost and manure (except when commercially packaged and treated);

2. All plants with roots (except bareroot plants free from soil).

3. Grass Sod;

4. Plant crowns or roots for propagation (except when free from soil);

5. Bulbs, corms, tubers, and rhizomes of ornamental plants (except when free from soil);

6. Any other plant, plant part, article, or means of conveyance when it is determined by a Utah State Plant Quarantine Officer to present a hazard of spreading live Japanese beetle due to infestation or exposure to infestation by Japanese beetle.

B. Packing material added to bareroot plants after harvesting would not normally pose a pest risk. Packing material would be covered under (6) above, at the inspector's discretion.

C. Free From Soil - For the purposes of this quarantine, free from soil is defined as soil in amounts that could not contain concealed Japanese beetle larvae or pupae.

R68-15-5. Restrictions.

All commodities covered are prohibited entry into Utah from the area under quarantine unless they have the required certification. Plants may be shipped from the area under quarantine into Utah provided such shipments conform to one of the options below and are accompanied by a certificate issued by an authorized state agricultural official at origin. Note that not all protocols approved in the U.S. Domestic Japanese Beetle Harmonization Plan are acceptable for Utah. Advance notification of regulated commodity shipment is required. The certificate shall bear the name and address of the shipper and receiver as well as the inspection/certificate date and the signature of state agricultural officer. The certifying official shall mail, FAX or e-mail a copy of the certificate to Director, Plant Industry Division, Utah Department of Agriculture and Food, 350 North Redwood Road, P.O. Box 146500, Salt Lake City, Utah 84114-6500, FAX: (801) 538-7189, e-mail: UDAF-Nursery@utah.gov. The shipper shall notify the receiver to hold such commodities for inspection by the Utah Department of Agriculture and Food. The receiver must notify the Utah Department of Agriculture and Food of the arrival of commodities imported under the provisions of this quarantine and must hold such commodities for inspection. Such certificates shall be issued only if the shipment conforms fully with (a), (b), (c), (d) or (e) below:

R68-15-5. Restrictions. (continued).

(a) Production in an Approved Japanese Beetle Free Greenhouse/Screenhouse. All the following criteria apply: All media must be sterilized and free of soil; All stock must be free of soil (bareroot) before planting into the approved medium; The potted plants must be maintained within the greenhouse/screenhouse during the entire adult flight period; During the adult flight period the greenhouse/screenhouse must be made secure so that adult Japanese beetles cannot gain entry. Security will be documented by the appropriate phytosanitary officials of the origin state department of agriculture and must be specifically approved as a secure area. They shall be inspected by the same officials for the presence of all life stages of the Japanese beetle; The plants and their growing medium must be appropriately protected from subsequent infestation while being stored, packed and shipped; Certified greenhouse/screenhouse nursery stock may not be transported into or through any infested areas unless identity is preserved and adequate safeguards are applied to prevent possible infestation; Each greenhouse/screenhouse operation must be approved by the phytosanitary officials as having met and maintained the above criteria, and issued an appropriate certificate bearing the following declaration: "The rooted plants (or crowns) were produced in an approved Japanese beetle free greenhouse or screenhouse." The certificate accompanying the shipment must have the same statement as an additional declaration.

(b) Production During a Pest Free Window. The entire rooted plant production cycle will be completed within a pest free window, in clean containers with sterilized and soilless growing medium, i.e., planting, growth, harvest, and shipment will occur outside the adult Japanese beetle flight period, June through October. The accompanying phytosanitary certificate shall bear the following additional declaration: "These plants were produced outside the Japanese beetle flight season."

(c) Applications of Approved Regulatory Treatments. All treatments will be performed under direct supervision of a phytosanitary official of the origin state department of agriculture or under a compliance agreement thereof. Treatments and procedures under a compliance agreement will be monitored closely throughout the season. State phytosanitary certificates listing and verifying the treatment used must be forwarded to the receiving state via fax or electronic mail, as well as accompanying the shipment. Note that not all treatments approved in the U.S. Domestic Japanese Beetle Harmonization Plan are acceptable for Utah. The phytosanitary certificate shall bear the following additional declaration: "The rooted plants were treated to control "Popillia japonica" according to the criteria for shipment to category 1 states as provided in the U.S. Domestic Japanese Beetle Harmonization Plan and Utah Japanese Beetle Quarantine."

(A) Dip Treatment - B and B and Container Plants. Not approved.

(B) Drench Treatments - Container Plants Only. Not approved for ornamental grasses or sedges. Potting media used must be sterile and soilless, containers must be clean. Field potted plants are not eligible for certification using this protocol. This is a prophylactic treatment protocol targeting eggs and early first instar larvae. If the containers are exposed to a second flight season they must be retreated.

(1) Imidacloprid (Marathon 60WP). Apply one-half (0.5) gram of active ingredient per gallon as a prophylactic treatment just prior to Japanese beetle adult flight season (June 1, or as otherwise determined by the phytosanitary official). Apply tank mix as a drench to wet the entire surface of the potting media. A twenty-four (24) gallon tank mix should be enough to treat 120-140 one-gallon containers. Avoid over drenching so as not to waste active ingredient through leaching. During the adult flight season, plants must be retreated after sixteen (16) weeks if not shipped to assure adequate protection.

(2) Bifenthrin (Talstar Nursery Flowable 7.9%). Mix at the rate of twenty (20) ounces per 100 gallons of water. Apply, as a drench, approximately eight (8) ounces of tank mix per six (6) inches of container diameter.

(C) Media (Granule) Incorporation - Container Plants Only. All pesticides used for media incorporation must be mixed prior to potting and plants potted a minimum of thirty (30) days prior to shipment. Potting media used must be sterile and soilless; containers must be clean. The granules must be incorporated into the media prior to potting. Field potted plants are not eligible for treatment. This treatment protocol targets eggs and early first instar larvae and allows for certification of plants that have been exposed to only one flight season after application. If the containers are to be exposed to a second flight season they must be repotted with a granule incorporated mix or retreated using one of the approved drench treatments. Pesticides approved for media incorporation are:

R68-15-5. Restrictions (continued).

- (1) Imidacloprid (Marathon 1G). Mix at the rate of five (5) pounds per cubic yard.
- (2) Bifenthrin (Talstar Nursery Granular or Talstar T and O Granular (0.2)). Mix at the rate of 25 ppm or one-third (0.33) of a pound per cubic yard based on a potting media bulk density of 200.
- (3) Tefluthrin (Fireban 1.5 G). Mix at the rate of 25 ppm based on a potting media bulk density of 400.
- (D) Methyl Bromide Fumigation. Nursery stock: methyl bromide fumigation at NAP, chamber or tarpaulin. See the California Commodity Treatment Manual for authorized schedules.
- (E) Other treatment or protocol not described herein may be submitted for review and approval to the Commissioner of Utah Department of Agriculture and Food.

(d) Detection Survey for Origin Certification. Japanese Beetle Harmonization Plan protocol not approved. Alternative approved protocol: States listed in the area under quarantine may have counties that are not infested with Japanese beetle. Shipments of commodities covered may be accepted from these noninfested counties if annual surveys are made in such counties and adjacent counties and the results of such surveys are negative for Japanese beetle. In addition, the plants must be greenhouse grown or contained in media that is sterilized and free of soil and the shipping nursery must grow all their own stock from seed, unrooted cuttings or bareroot material. A list of counties so approved will be maintained by the Utah Department of Agriculture and Food. Agricultural officials from a quarantined state or province may recommend a noninfested county be placed on the approved county list by writing for such approval and stating how surveys were conducted giving the following information:

- (A) Areas surveyed
- (B) How survey was carried out
- (C) Number of traps
- (D) Results of survey
- (E) History of survey

If a county was previously infested, give date of last infestation. If infestations occur in neighboring counties, approval may be denied. To be maintained on the approved list, each county must be reappraised every twelve (12) months. Shipments of commodities covered from noninfested counties will only be allowed entry into Utah if the uninfested county has been placed on the approved list prior to the arrival of the shipment in Utah. The certificate must have the following additional declaration: The plants in this consignment were produced in (name of county), state of (name of state of origin) that is known to be free of Japanese beetle.

(e) Privately owned house plants obviously grown, or certified at the place of origin as having been grown indoors without exposure to Japanese beetle may be allowed entry into this state without meeting the requirements of section (4). Contact the Utah Department of Agriculture and Food for requirements: Director, Plant Industry Division, Utah Department of Agriculture and Food, 350 North Redwood Road, P.O. Box 146500, Salt Lake City, Utah 84114-6500, FAX: (801) 538-7189, e-mail: UDAF-Nursery@utah.gov.

R68-15-6. Disposition of Violations.

Any or all shipments or lots of quarantined articles or commodities listed in R68-15-4 above arriving in Utah in violation of this quarantine shall immediately be sent out of the state, destroyed, or treated by a method and in a manner as directed by the Commissioner of the Utah Department of Agriculture and Food or his agent. Treatment shall be performed at the expense of the owner, or owners, or their duly authorized agent.

KEY

quarantine

Date of Enactment or Last Substantive Amendment

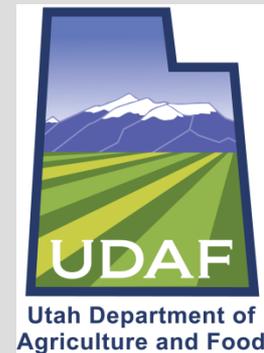
December 14, 2007

Notice of Continuation

September 20, 2007

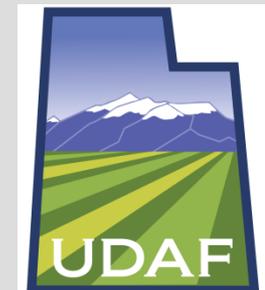
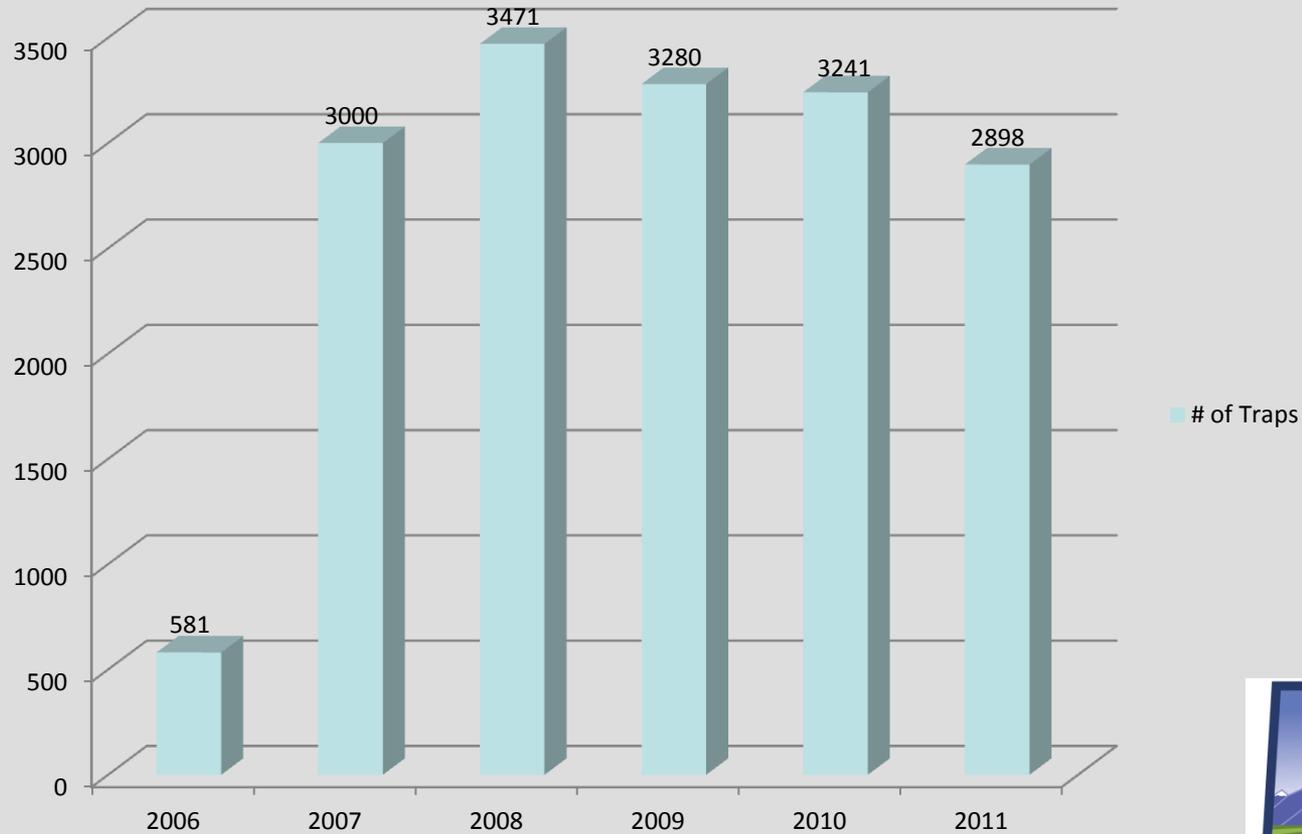
Authorizing, Implemented, or Interpreted Law

4-2-2; 4-35-9



Total Traps Placed Statewide

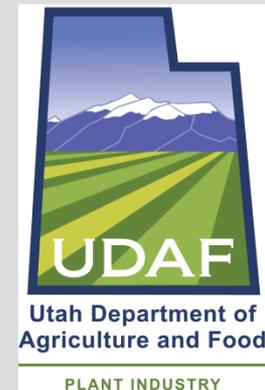
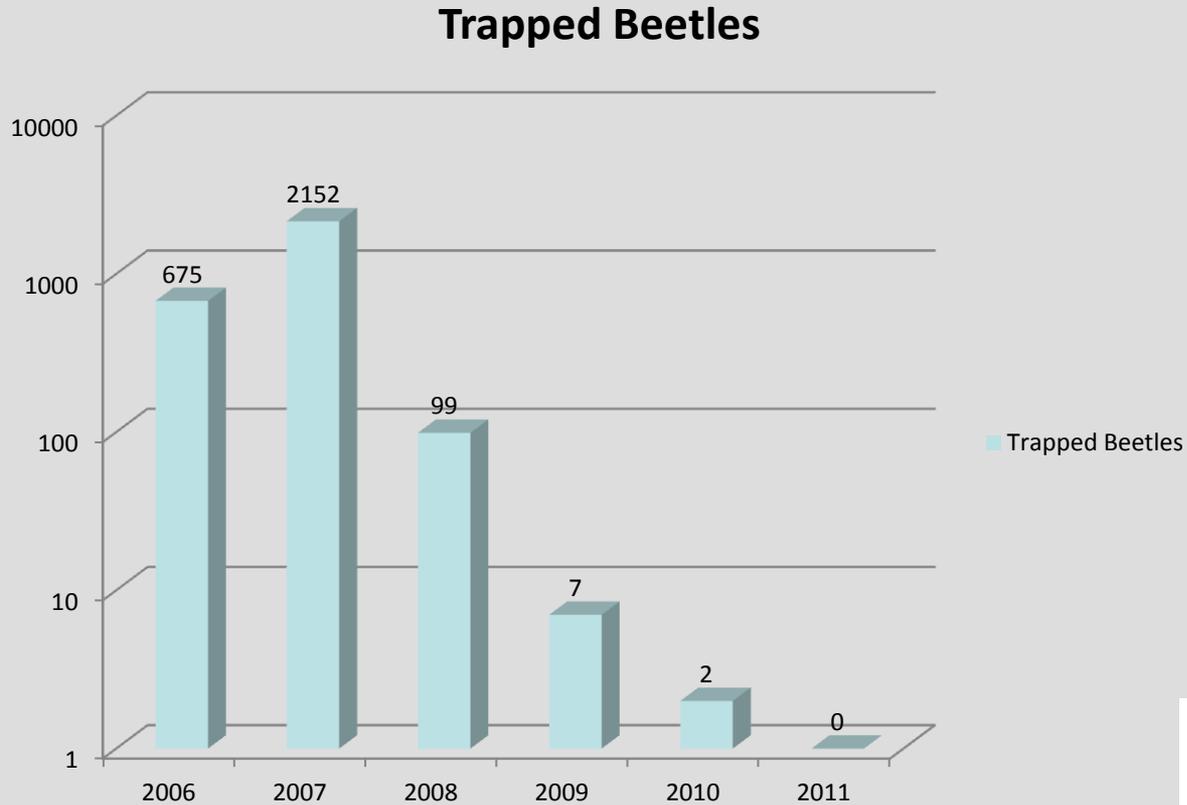
of Traps



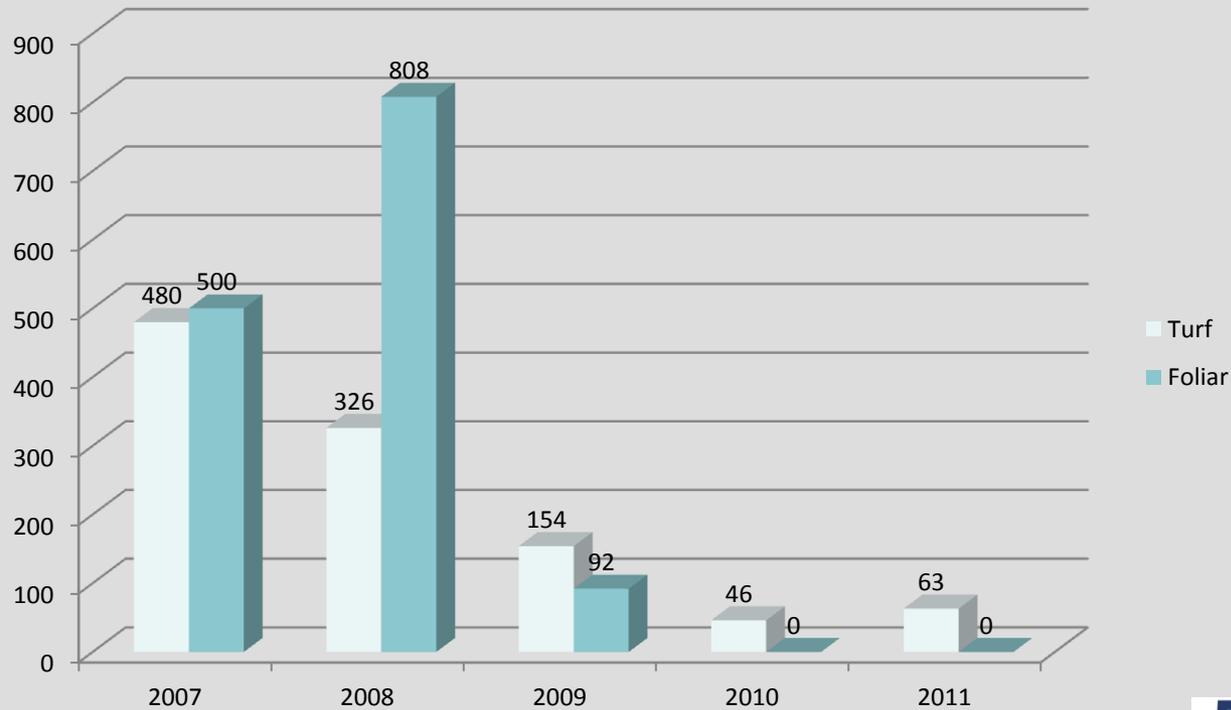
Utah Department of
Agriculture and Food

PLANT INDUSTRY

Summary of Beetles Trapped



Summary of Acres Treated

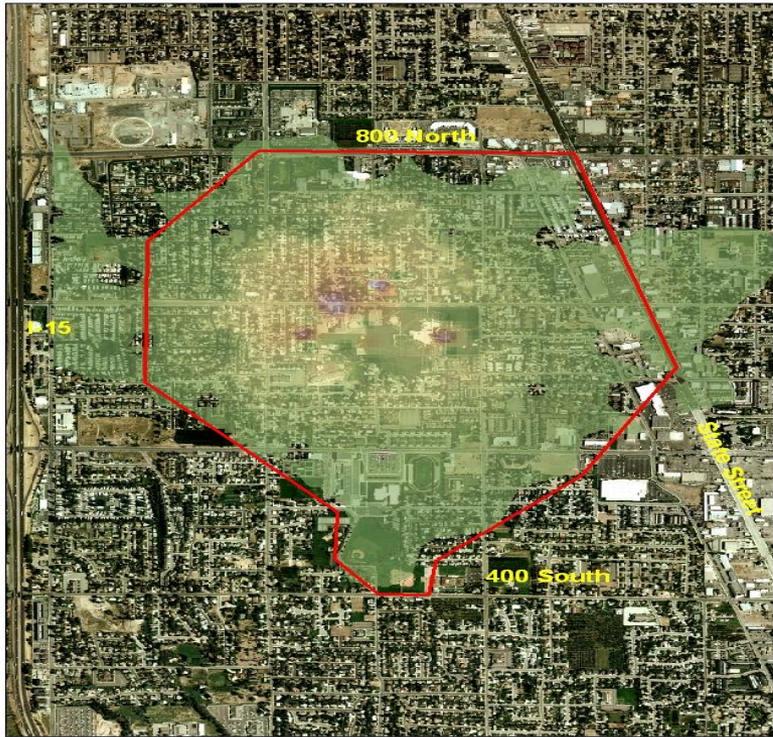


2011 project treatment: 63 acres

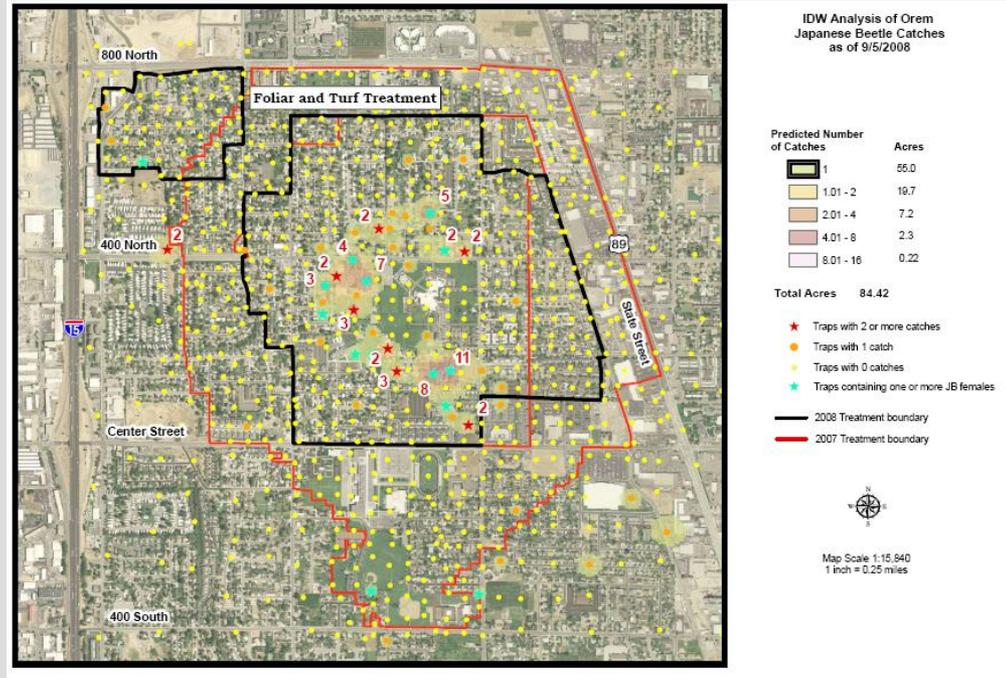


Statistical Analysis Guides

Treatment Plans

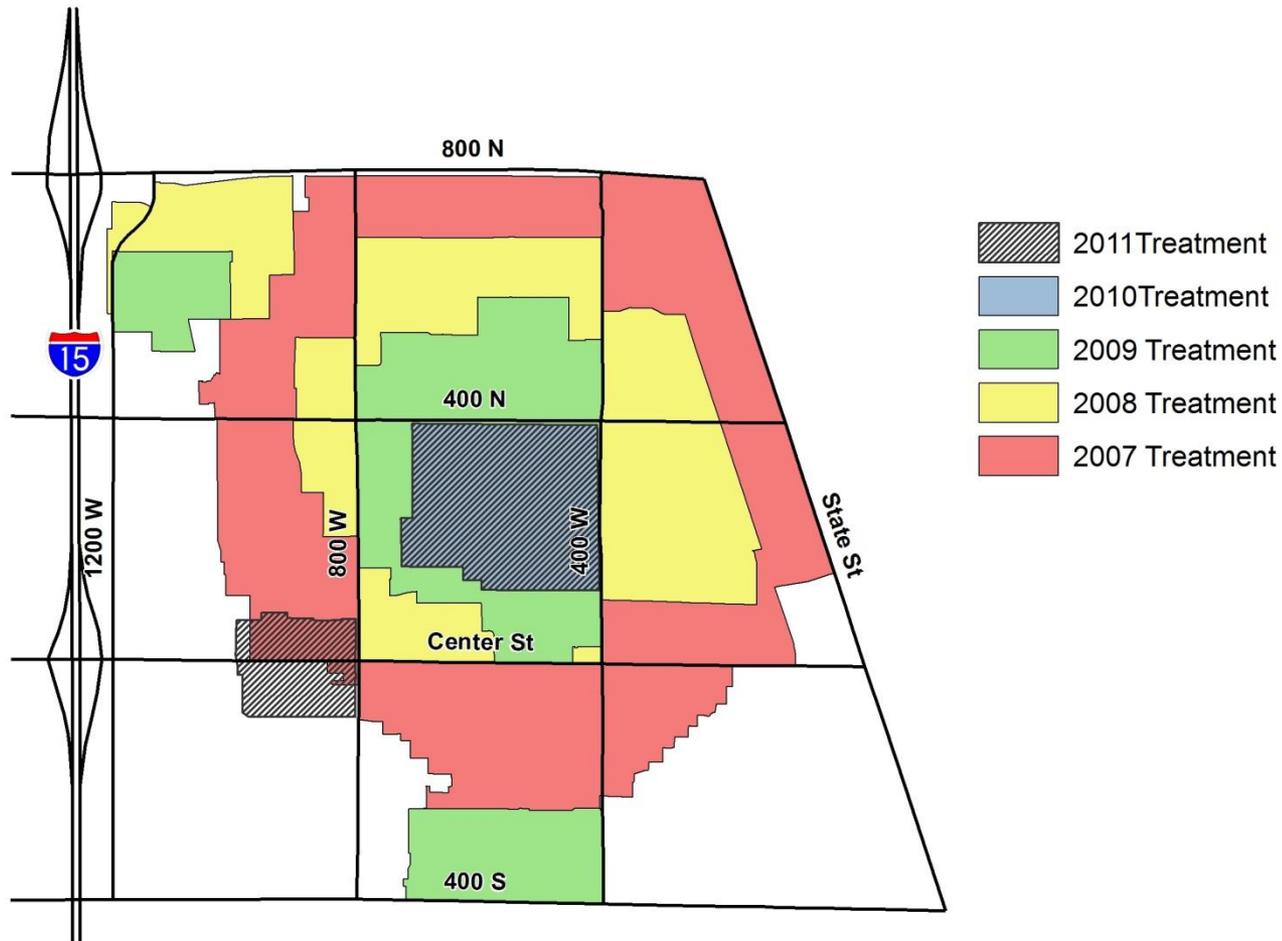


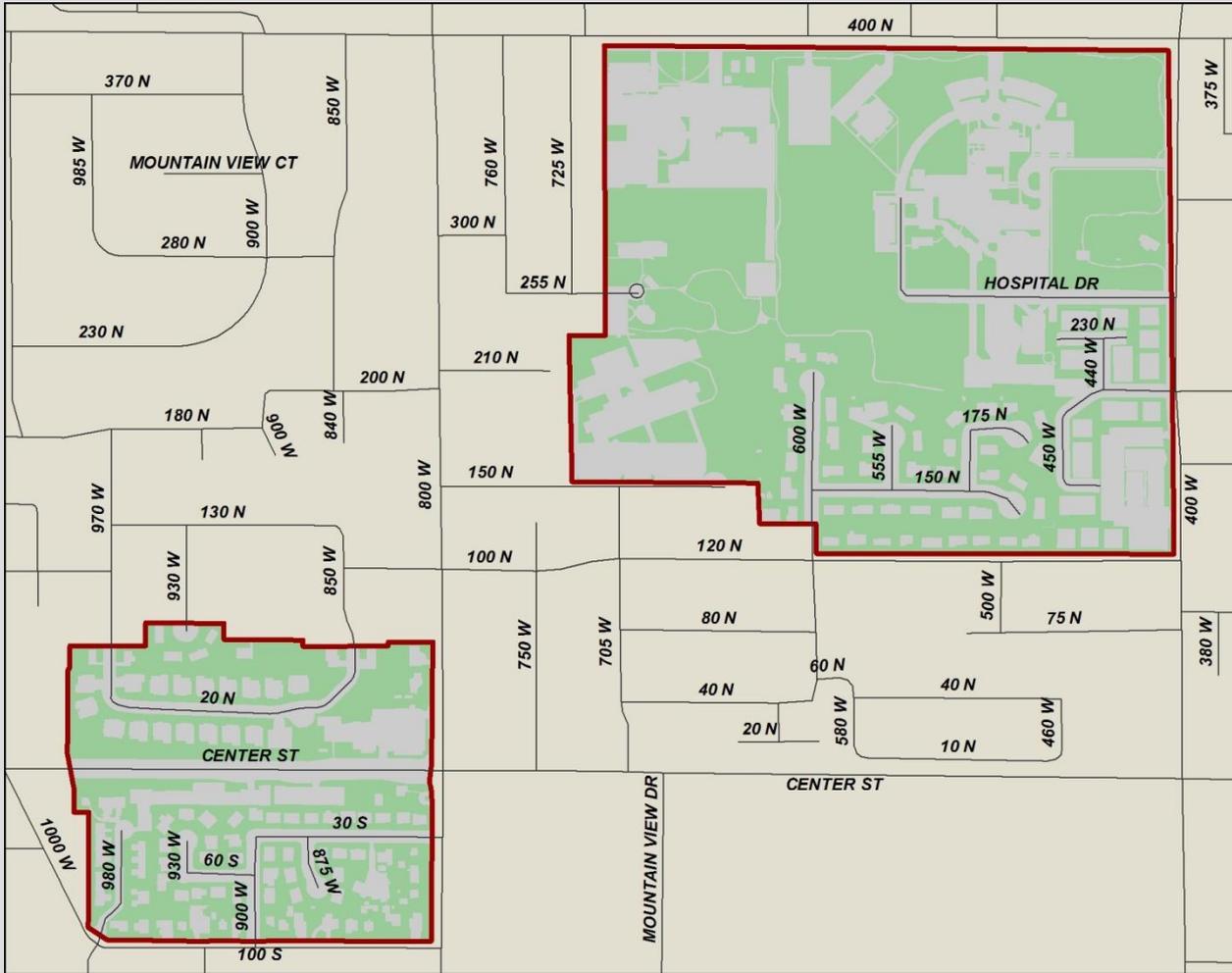
IDW of 2006
Traps (1,000' Grid)



IDW of 2008
Traps (250' – 500' Grid)

Treatment map, 2007-2011





-  2011 treatment boundary
-  Area to be treated (63 acres)
-  Non-treatment area (51 acres)



1 inch = 675 feet

JB Programs

- 2009 Treatment
 - Turf – 154 Acres
 - Acelepryn (chlorantraniliprole) and Arena (clothianidin)
 - Foliar – 92 Acres
- 2009 catches
 - Orem 5 JB, 1194 traps
 - SLC 1 JB, 110 traps
 - Logan 1 JB, 50 traps
- 2010 Treatment
 - Turf – 46 Acres
 - Acelepryn (chlorantraniliprole) and Arena (clothianidin)
 - Foliar – 0 Acres
- 2010 Catches
 - Orem 1 JB male
 - South Jordan 1 JB male
- 2011 Treatment
 - Turf – 63 Acres
 - Acelepryn (chlorantraniliprole) and Arena (clothianidin)

2011 Utah Japanese Beetle Trap Density Per Square Mile

