

UDAF JAPANESE BEETLE ERADICATION PROPOSAL

Background

Japanese beetle *Popillia japonica* (JB) is a destructive, invasive insect that is not established in Utah. The Utah Department of Agriculture and Food (UDAF) annually places detection traps in all of Utah's 29 counties to monitor for this pest. In 2019, numerous JB were detected via trapping in Salt Lake City's Northwest quadrant and South Salt Lake City's industrial district. UDAF is proposing an eradication plan to prevent the establishment of this pest.



Proposal details

UDAF plans to contract a licensed commercial pest control operator to apply a larvicidal treatment on areas identified as having a high-risk of JB establishment (see maps on the right). One application is scheduled during spring 2020; however additional treatments may be required later in the season, in subsequent years and in other areas. This application will be applied at no charge to residents and property owners.

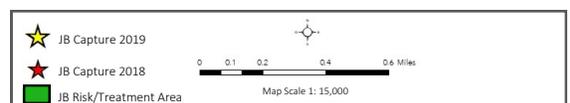
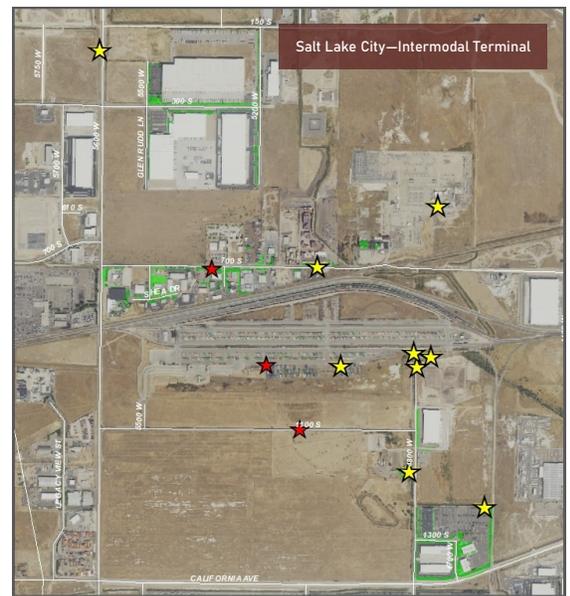
The spray project's strategy is to control beetles while they are underground in the larval stage. Therefore, the project will focus on treating turfgrass. However bare ground and soil may be treated under certain circumstances. Trees, shrubs and ornamental landscape plants will not be treated.

Safety and pollinator protection: UDAF has selected imidacloprid, a non-restricted use pesticide for the project. The pesticide is proven effective in controlling JB and it has low-mammalian toxicity (safe for people and pets). The pesticide is for sale to the general public and is a commonly used product.

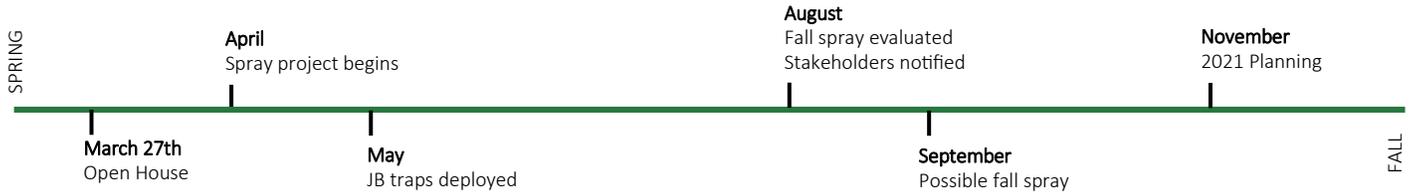
Pesticide enforcement officials will supervise applications to ensure that all federal and state rules are followed, so that residents, water quality and the environment are protected. The state Apiary Program will notify nearby beekeepers in advance of applications and train the pest control company in best practices for pollinator protection.

Results of inaction

If action isn't taken, JB will likely establish in Utah. The state's \$128 million floriculture and \$17 million fruit industry will begin bearing the costs of JB control and damage. Pesticide use is likely to increase significantly in these industries, as well as among landscape managers and residents. Also, Utah's nursery industry will be quarantined by non-infested states. As a result, this industry will suffer costly export market restrictions on their products.



2020 Project Timeline



Biology

During the feeding period and after mating, females intermittently leave plants, burrow about 3 inches into the ground—usually into turf—and lay a few eggs. This cycle is repeated until the female lays 40 to 60 eggs. By midsummer, the eggs hatch, and the young grubs begin to feed. Each grub is about an inch long when fully grown and lies in a curled position. In late autumn, the grubs burrow 4-8 inches into the soil and remain inactive all winter. In early spring, the grubs return to the turf and continue to feed on roots until late spring, when they change into pupae. In about two weeks, the pupae become adult beetles and emerge from the ground. UDAF eradication efforts will be targeting JB in the larval stage.

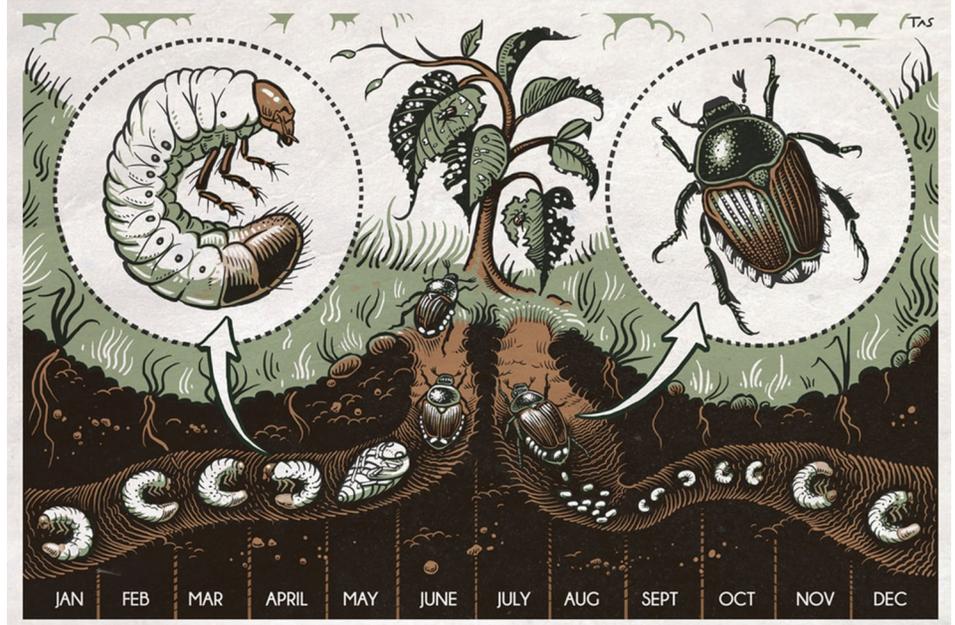
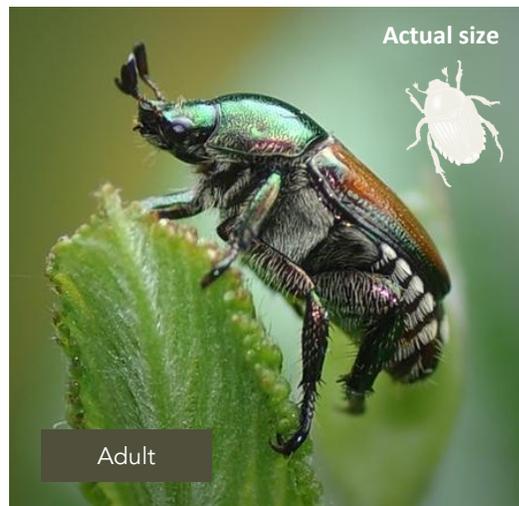


Image courtesy Thomas A. Shahan and the Oregon Department of Agriculture: IPPM



Larvae

- Lives in soil underneath turf.
- Ranges from 1/2 – 2 inches in length depending on age.
- White, c-shaped, with 3 pair of legs
- Difficult to distinguish from other “white grubs.”

Adult

- Averages 1/2 inch in length.
- Metallic green head and thorax; burgundy wings.
- Five white hairy patches on sides of abdomen; one pair on the back of the abdomen.

Contact information

Residents and property managers are encouraged to learn how to identify JB and report any sighting of the pest.

For more information about JB and UDAF, visit: <http://ag.utah.gov/jberadication>



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