

Japanese Beetle Eradication Response Plan 2020



Oregon
Department
of Agriculture

www.Oregon.gov/ODA
Revised March 10 2020

Introduction

Oregon Department of Agriculture (ODA) program staff detected 369 Japanese beetles (*Popillia japonica*, Coleoptera: Scarabaeidae; JB) in the Cedar Mill and Bethany areas of Washington County, and another 4 beetles at Portland International Airport (PDX) and Swan Island in Portland in 2016. This represented the largest total number of beetles detected in Oregon in a single field season. The JB infestation in Cedar Mill and Bethany areas of Washington County may have started 2 to 3 years prior to detection. Japanese beetle trap density was reduced in lower-risk areas (where JB had not previously been detected), including the Cedar Mill area, because of budget cuts to the JB monitoring program. This program does not receive federal funding. ODA initiated a large-scale eradication program for the JB infestation in Cedar Mill and Bethany areas in 2017 that comprised of four main components: communication, treatment, quarantine and surveillance. This eradication program is expected to continue until at least 2021.

Threats of introductions come from infested areas in the eastern United States each year as interstate commerce and other pathways for introduction provide a mechanism for the pest to expand its range. Oregon Department of Agriculture began the JB detection program in the 1940's. By 1960, beetles were being found on transcontinental planes landing at PDX. Airplane inspections began in earnest at PDX and at Klamath Falls, where military and commercial aircraft were coming in from eastern states. An economic analysis was conducted to determine the impact of a breeding population of Japanese beetles (Appendix III). An informal environmental assessment was conducted in 2016 (Appendix III). ODA also enforces a strict JB quarantine rule (Quarantine; Japanese Beetle, European Chafer and Oriental Beetle 603-052-0127 Appendix 2) to prevent the spread of Japanese beetle. ODA has conducted seven successful eradication programs in Oregon since 1988. In addition, treatments at the PDX and vicinity have been ongoing for more than a decade. The JB quarantine rule also stipulates ODA respond to infestations found in Oregon by creating a response plan to conduct eradication activities.

Summary of 2019 Operations

IPPM entered its third year of treatment for the Japanese beetle (JB) eradication program in Washington County. Following the detection of over 17,000 beetles in 2018, the treatment area in 2019 was expanded to include infested areas untreated in 2018. From January to March, IPPM staff worked hard to inform residents and businesses in the treatment area about the importance of protecting Oregon from JB, as well as gather consent from residents to allow IPPM to treat the properties. To inform residents about the project, letters were mailed, notices were posted on doors, and articles were included in homeowner's association and industry newsletters. In addition, a webinar and open house events were held in collaboration with partner agencies and stakeholders in the area to provide residents an opportunity to learn about the project, ask questions, and have conversations about their concerns. Overall, residents were very supportive with over 95% of residents consenting to treatment.

The primary phase of treatment began on April 2 and concluded on June 7, 2019. In total, about 8,500 residences, 6 schools, 8 parks, 3 shopping centers, PDX airport, and 1 golf course were treated – an area of approximately 3000 acres. Treatment consisted of a single application of Acelepryn® G (Chlorantraniliprole) granular larvicide to lawns and ornamental planting beds. Residents who requested and were granted medical exemptions were treated with GrubGone! G (*Bacillus thuringiensis galleriae*), a granular microbial larvicide. In order to complete the treatment, 470 administrative warrants were served to residents who did not respond to requests for consent.

For the first time in 2019, the granular treatment (Acelepryn® G) was supplemented with a foliar spray (Acelepryn®) in the Washington Co. eradication, in areas with higher Japanese beetle populations. This application was both free and voluntary to the residents. Properties within 200 meters of a trap that collected 75+ beetles in 2018 were within the higher density treatment area. treatment area consisted of approximately 800 properties, of which consent was given to treat 389 of these properties. The scheduled treatment occurred between June 25- July 1.

ODA placed 10,920 JB traps in 32 of 36 Oregon counties. Of these, 6,851 traps were delimitation or add-on traps placed in Clackamas, Douglas, Multnomah, or Washington Counties. The remaining 4,069 traps were detection traps deployed to high-risk sites in cities, towns, and rural areas throughout the state. This year, ODA caught 7,782 Japanese beetles statewide, a majority of which were from Cedar Mill and the surrounding areas. In addition to Cedar Mill area, ODA also trapped Japanese beetles at Portland International Airport (PDX, 32 beetles in and around vicinity of airport), and Oakland (1 beetle.) The beetle catches from these other areas are likely unrelated to the Cedar Mill infestation. The overall number of beetles trapped in 2019 was a 56% reduction from the previous year. The number of beetles trapped within the boundary of the 2018 treatment area was reduced by approximately 65% as a result of the 2018 granular treatment and 2019 foliar treatment. We saw approximately a 75% decrease from 2018 to 2019 within the boundaries of the foliar treatment.

Proposed Treatment Plan for 2020

In 2020, ODA employees will supervise a contracted commercial pest control operator to spread a granular application of the larvicide on appropriate areas of all properties (public, residential and commercial) in the affected areas. There will be one application of Acelepryn® G during Spring 2020. Additional treatments may be required in subsequent years. This application is applied at no charge for all residents and property owners in the affected area. It will take ODA approximately two months to apply the larvicide to all appropriate properties in the affected areas.

Areas with high beetle density will be getting a supplementary treatment of the foliar formulation of Acelepryn®. This supplementary treatment targets adult beetles. The high-density area is within 200m of a trap the trapped 30 or more beetles. This totals 1,465 households an approximately 550 acres.

Acelepryn® G and Acelepryn® are Group 28 reduced-risk pesticides. It has the lowest relative toxicity compared to other insecticides labeled for the same purpose. The active ingredient in Acelepryn® G and Acelepryn® is chlorantraniliprole. The Oregon Health Authority has developed frequently asked questions regarding chlorantraniliprole and can be found on their website (Appendix III).

It is a requirement that formal consent to treat residential areas, schools, parks, businesses and other appropriate areas is to be collected from residents, businesses, agencies or organizations before treatment can take place. If consent is not granted by residents for ODA to treat the property with Acelepryn® G, they will be required to submit a medical affidavit detailing reasons that exempt them from treatment with Acelepryn® G. Alternative treatments may be acceptable, such as application of GrubGone! (*Bacillus thuringiensis* Galleriae) or allowing areas to remain unirrigated during summer months, but only following submission of a valid medical affidavit. Refusal without an affidavit or a no response from the property occupant will result in an administrative warrant issued by the county where the property is located granting the Oregon Department of Agriculture and its contractors' permission to treat the specific property or location with Acelepryn® G. Refusal to allow Oregon Department of Agriculture or its

contractors to perform the work described in the warrant could result in a court summons, penalties or fines.

The life cycle of Japanese beetle takes place underground ten months of the year. When JB is in egg, larval and pupal stages (generally late Summer until Spring of the following year) care needs to be taken in disposing of sod and soil that has been disturbed. Residents do not need to take special precautions in disposing of above-ground yard debris during this time. The adult stage of JB is above ground in June, July and August. During this time, precautions need to be taken in disposing of plants as well as grass clippings. The disposal procedures described in the sections below will be strongly recommended through the 2020 growing seasons.

Eradication and surveillance operations will occur at five areas in Oregon: Cedar Mill, Bethany & Five Oaks, Best Buy in Town (area surrounding the yard debris drop-off site), and Portland International Airport (PDX). Specific details for treatment, surveillance, the impact to area are provided below.

◆ Washington County

Treatment: The treatment area will be expanded in 2020 to include new areas based on 2019 trap catches. These boundaries are determined based on traps where beetles are detected. The total treatment area is estimated to be approximately 4500 acres (Appendix I). Treatment with Acelepryn G will occur where necessary where typical JB habitat is found. There largest contiguous area will be referred to as the “Primary” treatment area. All others in Washington County are referred to as “Peripheral” areas, including the area near yard debris quarantine drop site.

Surveillance: Monitoring will be expanded from the 2019 plan to include areas where JB was newly detected in 2019. Trap densities within the eradication area and for 0.5 square miles surrounding yard debris drop site will be 200 traps per square mile. Trapping densities around locations where three or greater JB were detected will be 49 traps/mi² for 1 mi² surrounding the trap, 25 traps/ traps/mi² adjacent to that area. Statewide detection trapping will be an estimated 2 traps/mi².(Appendix I). 9 Plurasense phototraps will also be deployed in the treatment area in order to capture an estimated emergence date.

Impact to area:

A yard debris quarantine exists for material produced within the Primary Japanese beetle treatment area. This area has been expanded from the 2019 quarantine and includes the primary treatment area (Appendix 1). Any yard debris waste that is being generated within these quarantine boundaries must be disposed of either in residential curbside bins or normal waste removal services or taken to the drop site. Peripheral treatment areas are not subject to the quarantine.

Plant material containing soil, root balls, and sod need to be disposed of in the residential garbage waste collection bins (“curbside bins”). These bins will be directed to the Hillsboro Landfill for deep burial, as per the municipal agreement for containment. Lawn clippings need to be disposed of in the residential garbage waste collection bins (April through October only), or mulched (entire year; mulch must not leave the quarantine area).

Leaf collection in the fall is considered low-risk and does not need to be disposed of in any special manner. Material that consists of only large pruned branches or trunk wood is considered low-risk and does not need to be disposed of in any special manner. However, removed stumps with dirt and roots attached should be taken to disposal site.

Mixed loads containing any of the restricted materials (lawn clippings, sod, root balls, live plants) should be disposed of in curbside bins or taken to the drop site.

ODA will work to alert landscapers in Washington County of the special restrictions on disposal of green waste in the impacted area. Between April and October, residents and businesses in the impacted area who have their lawn mowed by a professional service need to ensure that their lawn clippings are bagged and taken to the appropriate Yard Debris reload station.

Movement of live outdoor plants from the impacted area will be discouraged. It is acceptable to leave all yard debris on site. Mulch or other products made from this debris may not leave the quarantine area without being disposed of as described above.

◆ Portland International Airport (PDX)

Treatment: Treatment will occur on turf areas near the area where JB was detected in Summer of 2019.

Surveillance: Delimitation traps will be placed around positive JB detections from the 2019 trapping season. These traps will follow the protocol outlined in National Plant Board U.S. Domestic Japanese Beetle Harmonization Plan (rev. June 20, 2016) Appendix 4:2: Delimiting Trapping Program for States with Japanese Beetle Quarantines of a trap density of 49 traps/mi² within one square mile around the adult find, 25 traps/mi² for the contiguous square miles and then 5 traps/mi² for an additional 2 miles (Appendix I). 9 Plurasense phototraps will also be deployed in the treatment area in order to capture an estimated emergence date.

Impact to Area: no quarantine will be established for this area.

2020 Communication plan and timeline

Most of the treatment area consists of residents that have already experienced one or more years of treatment. In 2018, an electronic database was created that allowed the collection of contact information, including names, phone numbers and email addresses of residents who responded for request to consent. In 2019 Oregon Department of Agriculture created a NextDoor account, which is a social media platform for specific neighborhoods. We are able to use GIS to specifically target residents within the treatment area on the platform for notifications and project updates.

January Send order for first new resident notices

February
 Send out Mailers to old residents
 reminder emails to old residents
 JB Informational Open Houses
 Send reminder cards to non-responders

March Biotech Crew Leads start
 Door hanger notices delivered

April 1: Tentative treatment start
 Yard Debris Quarantine starts

Residential treatment starts

May	JB Treatment continues
June	Granular Treatment concludes Foliar treatment begins
July	Foliar treatment concludes

Appendix I: Maps of Delimitation and Treatment Areas

Figure 1: Map of proposed treatment boundary and yard debris quarantine for Washington County.

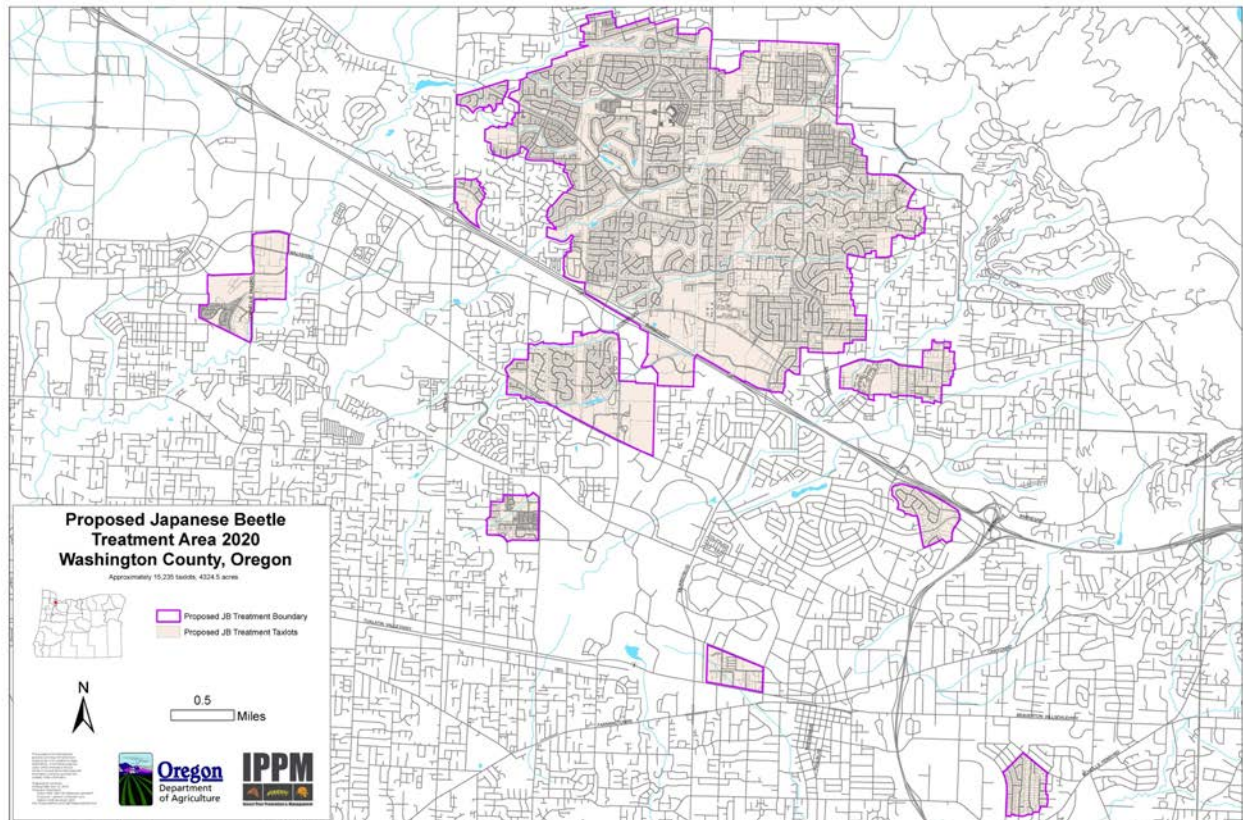
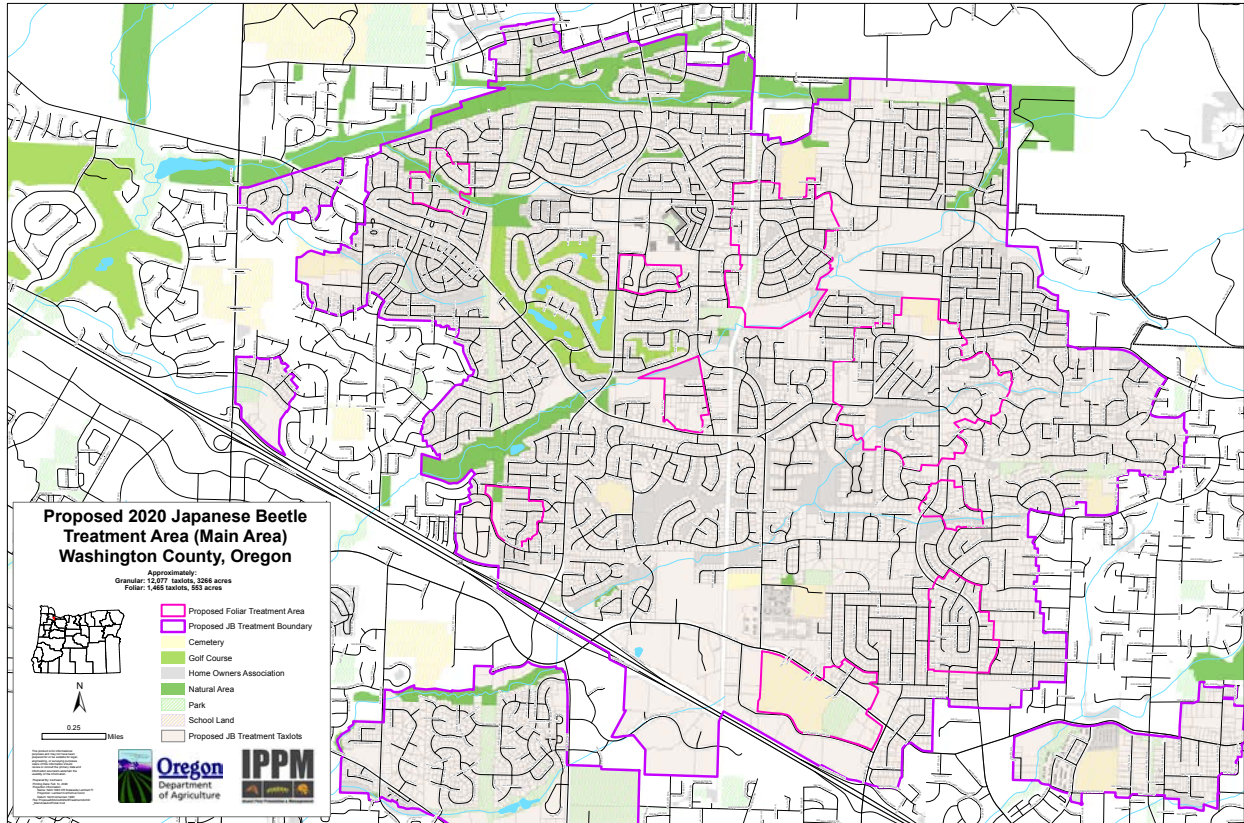


Figure 2: Map of proposed foliar boundary within main treatment area for Washington County.



Appendix II:

603-052-0127: Quarantine; Japanese Beetle, European Chafer and Oriental Beetle

Appendix III: Additional Supplementary Materials

- a) Acelepryn G Label
- b) Oregon Health Authority webpage about Acelepryn G:
<https://www.oregon.gov/oha/ph/HealthyEnvironments/HealthyNeighborhoods/Pesticides/Pages/Chlorantraniliprole-and-Your-Health-FAQs.aspx>
- c) Oregon Department of Agriculture's Economic Assessment,
- d) Oregon Department of Agriculture's Environmental Assessment

