



Washington
State Department of
Agriculture

The Apple Maggot Quarantine

Overview, Regulations, Special Permits

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Apple Maggot (*Rhagoletus pomonella*)



- **Hosts**

- Apple trees
- Hawthorn trees
- Crab apple trees

- **Spread by**

- Homegrown fruit
- Municipal waste

- **Risk to apple industry**

- Cost over \$500 million annually if pest established



Potential Impacts



- **Damage to fruit**
Dimpling, brown trails, and misshapen fruit
- **Reduced yield**
Fruit is no longer fit for human consumption
- **Trade impacts**
Domestic and international trade restrictions

Apple Maggot Quarantine

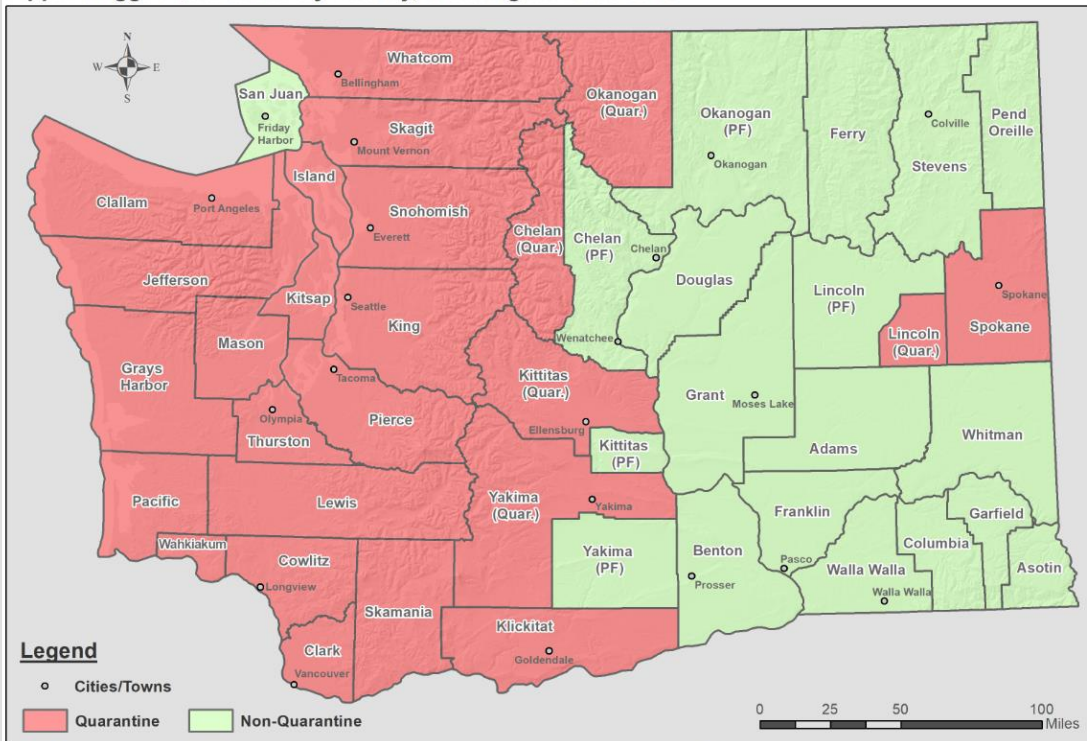


DON'T CROSS THE LINE

**No Homegrown Fruit
Beyond This Point**

**Entering Apple Maggot
Pest - Free Area**

Apple Maggot Quarantine by County, Washington State 2019



Datum: North America 1983
Coordinate System: StatePlane WA S. FIPS 4602 Ft.
Projection: Lambert Conformal Conic
Data Sources: WSDA, Plant Protection Division

This Data is provided on an 'AS IS' 'AS AVAILABLE' and 'WITH ALL FAULTS' Basis. The Content of this map and data are from many sources and are NOT warranted to be complete, accurate, or current. All critical information should be independently verified. WSDA and its officials and employees assume no responsibility or legal liability for the accuracy, completeness, reliability, timeliness, or usefulness of any of the information presented here.

Cartography by Brant Carman
4/18/19

Chapter 16-470 WAC



- **WAC 16-470-111**
Commodities regulated for apple maggot.
Finished compost is not regulated.
- **WAC 16-470-115**
Requirements for shipment of regulated commodities from AM Q to PFA.
- **WAC 16-470-124**
Special permit for solid waste and organic waste transport.

WSDA Special Permit



Required when transporting MSW or MGW from an apple maggot quarantine area into or through a pest-free area.

Municipal Solid Waste (MSW)

Municipal Green Waste (MGW)



Municipal Solid Waste (MSW)



- **Separation of waste**
 - Monitored & managed
- **Green waste**
 - Kept in quarantine area
- **Covered during transport**

Municipal Green Waste (MGW)



- **Processing**
- **Heat treatment**
 - Option 1: 55°C (131°F) for 2 weeks, 65°C (149°F) for 1 week, enclosed facility: 60°C (140°F) for 1 week
 - Option 2: 74°C (165°F) for 4 hours, 80°C (176°F) for 2 hours, 90°C (194°F) for 1 hour
- **Sanitation**
- **Validation of system and annual monitoring**

Options for Treatment and Disposal



- Steam treatment system
- 2018 Ecology & WSDA Report: (Publication # 18-07-026)
 - Facilities
 - Composting
 - Chipping
 - Biochar
 - Biomass electrical generation



To Learn More



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Apple maggot is a pest that threatens Washington's iconic apple industry, as well as many of our other fruit crops. Apple maggot is spread through the transport of homegrown fruit and municipal waste into the pest-free areas of the state. Common fruits it targets include apple, crab apple, and hawthorn, among others. Apple maggot has never been detected in commercially packed Washington fruit, and by working together we continue to safeguard our farms, orchards, and fruit industry.

Photo: Joseph Berger, Bugwood.org



[MORE ON APPLE MAGGOT](#)



APPLE MAGGOT
QUARANTINE INFORMATION



COMMERCIAL FRUIT
GROWERS



QUARANTINE AREA
RESIDENTS



GREEN WASTE



SOLID WASTE



LANDSCAPE PROFESSIONALS