

## Brambles: Pests & Diseases



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Good cultural practices can reduce many of the problems associated with growing raspberries and blackberries.

## Tips for successful raspberry cultivation:

- Choose a planting site with fertile soil that never has standing water.
- Allow proper spacing between plants within the rows and between rows for adequate air flow.
- Control weeds.
- Prune your plants properly and on schedule so that dead canes are not left in the bed.

Pest	Symptoms	Insect Description	Control and Prevention
Japanese Beetle	Feeding damage on flowers, foliage, or fruit.	Adult beetles are about 13 mm long with shiny, metallic-green bodies and brown wings. Larvae appear as large white grubs. Japanese beetles overwinter in turf.	Crop rotation.  Bacillus thuringiensis (B.t.)  Milky Spore. Insecticide.
Raspberry Cane Borer	Wilting tips of young plants. Girdles will appear 10–20 cm below the tip, appearing in twos, approximately 2–3 cm apart.	Adults are dark colored, about 1.25 cm long, with long antennae.	Destroy infested canes. Insecticides are not recommended.
Raspberry Crown Borer	Loss of vigor, spindly canes, or individual canes that break off at soil level. Borer damage is visible at the point of breakage. Easily confused with symptoms exhibited by several diseases.	A clearwing moth that resembles a yellow jacket.	Do not cultivate berries close to wild stands of berries. Insecticides that are applied as a drench.
Rednecked Cane Borer	Damage is inside the canes, where larvae feed from the inside out. Infested canes become girdled and weakened.	Adults are 6 mm long and black with a copper-colored thorax. Adults lay eggs inside the cane, from which the offspring emerge in late spring.	Scout plants during winter pruning. Insecticides can be applied to the canes.
Rose Chafer	Feeding damage on flowers, foliage, or fruit.	Adults are 13 mm long with spiny, reddish-brown legs and tan bodies. Commonly found in sandy soils.	Plowing or cultivation during grub stage. Foliar insecticides.
Spider Mite	Damage is worst during hot, dry periods. Leaves become stippled where the chlorophyll has been removed. Leaves gradually turn yellow, silver, or bronze. Plants become stunted with severe infestations.	Resembles tiny spiders. Approx 0.5 mm long, and are difficult to see with the naked eye. Can overwinter in plant debris.	Scout plants frequently for the presence of mites. Predaceous mites can control the population. Control weeds around the berry plants. Miticide.
Spotted Wing Drosophila	Tiny holes in the fruit caused by the fruit fly laying eggs. Larvae emerging from fruit. Wrinkling, molding, and softening of fruit.	Male adults have black spots on wings; females have serrated ovipositors that allow them to lay eggs in the fruit.	Use traps to monitor populations. Harvest frequently. Remove all unwanted fruit from planting area. Spinosad-based insecticides.

Disease	Symptoms	Prevention	Control
Anthracnose	Reddish-purple spots on young canes or leaves. Later in the season, canes may begin to die back. The fungus will overwinter on living and dead plant material.	Avoid overhead irrigation. Improve air circulation. Keep cultivated plants away from wild stands.	Fungicide. Liquid lime sulfur can be applied at the end of the dormant season.
Botrytis Fruit Rot (Gray Mold)	Fruit is covered with a grayish brown, dusty covering. Fruit may also appear mummified. Post harvest symptoms include white cottony mold on berries.	Improve air circulation. Harvest fruit at red-ripe, but firm stage. Store at 33–35°F/1–2°C.	Fungicide.
Cane Blight	Sudden wilting and death of partial or entire canes. Symptoms appear only on canes that have previously had open wounds. Lesions are not noticeable at the surface of the cane.	Avoid overhead irrigation. Increase air circulation. Avoid damaging canes with lawn or farm equipment.	Fungicide.
Crown Gall	Galls or fleshy growths on the roots or plant crown (base). The galls may be globe-shaped or irregular. Usually appears at the onset of warm weather. Plants may be stunted, wilt, or have poor fruit quality.	Use disease-free nursery stock.	Soil fumigation is generally ineffective. Remove plants and dispose. Replant with new stock in an area away from the infected crop.
Late Leaf Rust	Small spots appear on leaves, turning yellow, then brown. Severely infected plants may defoliate. Rust may also appear on fruit.	Increase air circulation. Remove infected plants. Do not plant raspberries near stands of White Spruce, which is a host plant. Plant resistant varieties ('Nova').	Fungicides are not generally effective. Lime sulfur. Proper pruning. Removing infected canes. Good air circulation.
Phytopthora Root Rot	Groups of plants that wilt or die suddenly. Alternately, plants may gradually yellow and wilt, or produce weak lateral shoots.	Test soil for the presence of Phytopthora. Improve soil drainage. Do not grow susceptible varieties.	Fungicide.
Pseudomonas Blight	Early in season, brown, water- soaked spots appear on leaves and petioles. The spots extend to create lesions. Entire canes may die. Similar symptoms to other, more common raspberry diseases.	Keep nitrogen levels moderate. Plant resistant varieties ('Nova').	Copper spray when plants are dormant.
Raspberry Mosiac Disease	Leaves can be blistered or mottled. Dwarfed plants, poor fruit yield.	Reduce aphid levels, as they transmit this disease. Keep plantings away from wild stands of berries	Aphicides.
Verticillium Wilt	Leaves can turn a very pale color. Canes may wilt and die. Plant vigor is diminished.	Test soil for the presence of Verticillium. Use disease-free nursery stock. Rotate plantings.	Soil fumigation. Fungicides are ineffective.