

NOTE: Once a specific problem is identified, consult guidebooks or POP's website (phillyorchards.org/search) to find more info on recommended management practices.

POP Plum Scouting Guide

PLUM PLANT DISEASES

BACTERIAL CANKER



- Bacterial condition from *Pseudomonas syringae*
- Symptoms include limb dieback, loss of fruit spurs, amber-colored gum, "dead bud", and leaf spotting
- Inner bark may be brown, fermented and sour-smelling
- Young trees most affected
- Spread by splashing rain, favored by high moisture and low spring temperatures
- Overwinters in cankers and systemically infected branches and buds

- Bacterial condition from *Xanthomonas arboricola*
- First appears as small, water-soaked grayish areas on underside of leaves
- Develops into angular and purple, black, or brown spots on leaves and fruit
- Later in the season, infections cause fruit skin to break and flesh to become sunken
- Causes tree defoliation
- Cracks fruit
- Overwinters in branch tips and diseased twigs

BROWN ROT



- Fungal infection from Monilinia fructicola
- First sign of infection is brown, wilted blossoms
- Dark, sunken spots develop on new shoots and limbs
- Fruit develops fuzzy tan/grey spores on fruit surface
- Fruit mummies turned shriveled and dark can cause recontamination if left
- Overwinters in twig cankers and mummified fruit on the ground and in tree

PLUM LEAF SCALD



- Bacterial infection from *Xylella fastidiosa*
- Causes leaves to appear burned or brown around the edges
- Spread by leafhoppers
- Can cause defoliation or death of the tree
- No cure available

BACTERIAL SPOT

PLUM PLANT DISEASES

PLUM POCKET or BLADDER PLUM



- Fungal infection from *Taphrina pruni*
- Starts with small white blisters, which grow, covering entire fruit
- Fruit may swell up to 10x its size, have spongy texture, and velvety gray fungal spores
- Can cause leaves and new shoots to thicken and curl
- May overwinter on infected twigs





BLACK KNOT

- Fungal infection from Apiosporina morbosa
- Originates in spring growth producing small, light brown swellings that rupture
- Young knots are soft, and velvety, olive-green and become hard, brittle, rough and black by autumn
- Fungus overwinters in knot and worsens from year to year
- Tips of branches can die back and severe cases can kill whole limbs



PLUM POX or Sharka



- Viral infection caused by the plum pox virus, a single strain RNA
- Different strains may infect a variety of stone fruit including peaches, apricots, plums, nectarine, almonds, sweet and tart cherries
- Easily identified by ring symptoms on leaves and fruit, but also manifests as yellowing line patterns, blotches, necrotic ring symptoms, and leaf distortion in some species.
- Infected fruit can develop yellow or brown rings and blotches or be deformed and bumpy and the seed of many infected apricots and some plums show rings.
- Virus is transmitted by aphids and the transfer of infected plant material
- Once transferred, virus becomes systemic and infects entire plant

PLUM PEST AND INSECT DAMAGE

LEAF CURL PLUM APHIDS

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- Tiny pests with shiny bodies that range from pale green to light yellow in color
- Cause leaves to curl as aphids suck the tree's fluids
- Aphids hatch at bud break and feed on young shoots and undersides of leaves
- Produce honeydew which is sticky substance that attracts ants and produces a sooty mold from ants' feeding
- Eggs overwinter near buds



PLUM CURCULIO



- ¼" long dark brown weevil with white patches and four humps on its back
- Appear in orchards during bloom
- Adults make crescent-moon shaped punctures on the fruit to lay eggs and feed
- Pearly white eggs laid in cavity of crescent flap hatch in 7 days and feed on buds, petals and blossoms
- Can cause deformed fruit and premature drop
- Overwinters in nearby brush and soil



ORIENTAL FRUIT MOTH



- Eggs appear as white flat ovals on the undersides of the leaves
- 1st generation larvae bore into growing shoots, causing terminal wilt and die back of new growth in spring, flagging
- Some 2nd, and most 3rd and 4th generation larvae attack fruit leaving a hole found in the side of the fruit with brown goo and powdery substance nearby
- Overwinters as a fully grown larva protected within a silk cocoon located in tree crevices or in the orchard ground cover.



PLUM PEST AND INSECT DAMAGE

JAPANESE BEETLE



- 7/16" metallic green beetles with copper-wing coverings
- Eat leaves, leaving only the skeleton
- Can cause damage on the fruit
- Adults emerge and feed on plants beginning in June (life cycle 30-45 days)
- Beetles overwinter in the grub stage in soil



- Stink bugs feed on the fruit of the tree
- Their piercing mouthparts cause sunken dimpled areas on the fruit or catfacing
- Under these 'dimples,' the flesh is brown and pithy to the core of the fruit
- Eggs are light yellow-red and elliptical with spines forming fine lines on the underside of leaves
- Group of adults overwinter in buildings and protected natural environments



CODLING MOTH



- Greyish adult moth with light grey and copper stripes emerges in spring
- Females lay eggs on fruit or leaves in summer, larvae attack the fruit immediately upon hatching
- Larva burrow and eats for three weeks
- Overwinters in cocoon under loose bark. soil, or leaf litter at base of tree.
- Crumbly brown frass is sometimes found at the hole where the larva exited usually near the blossom end.

AMERICAN PLUM BORER



- Grey moth with brown and black markings
- Larvae feed in the cambium layer, often entering through plant injuries, scaffold crotches and graft unions
- Reddish orange frass, webbing, and gum pockets indicate their presence
- Two generations per year
- Mature larva overwinter in silk cocoon in sheltered part of the tree





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