

Rhododendrons & Azaleas - Organic Pest & Disease Management

A Garden Guide

Happy plants - with regular water and good drainage - are naturally more pest and disease resistant.



Signs & Symptoms	Possible Causes	Additional Notes	Organic Management & Solutions
Leaves - Blotches	Azalea leaf miner	Brown blotches on azalea leaves in May. Can progress to a leaf tip rolling stage.	Rake and burn or bag fallen leaves in fall to break lifecycle. <u>Neem Oil</u> or <u>Spinosad</u> may help.
Leaves - Chewed or Eaten	Azalea Caterpillar	Entire plants may be defoliated	Hand pick and/or use <u>Bt - Bacillus thuringiensis</u> , <u>Spinosad</u> , <u>Pyrethrin</u> .
	Black Vine Weevil	Munching on leaf edges, mostly interior leaves	Select resistant cultivars, inspect at night, grow in containers. <u>Neem Oil</u> .
	Twobanded Japanese Weevil	Munching at leaf margins, can defoliate rapidly. Larvae may feed on roots, and can kill plants.	Place tray under plants and jiggle - adults will drop. <u>Neem Oil</u> , <u>Pyrethrin</u> . Possibly: <u>Beneficial Nematodes</u> .
Leaves - Distortion	Water Stress	Leaves roll and drop	Thoroughly water.
	Cold temperatures	Leaves roll and drop	Move plants to a more protected location or make protective walls.
	Longtailed Mealybug	Fresh new leaves turn yellow and distorted, some may die	Inspect for beneficial lady bugs who may be eating them. If there are no beneficials, treat with <u>Horticulture Oil</u>

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Leaves - Distortion (cont'd)	<p>Longtailed Mealybug (cont'd)</p> <p>Leaf + Flower Gall (Exobasidium)</p>	<p>Puffy green or white areas on new leaves and flowers</p>	<p>in winter, 2% Hort Oil during growing season, Neem Oil, or Spinosad.</p> <p>Do not threaten health of plants, just unsightly. Hand pink to remove.</p>
Leaves - Mottling	Azalea Whitefly	Edges of leaves cup, lower leaves covered in sticky honeydew and then black sooty mold. Flat insects on undersides of leaves.	Spray undersides of leaves with <u>Insecticidal Soap</u> (see Notes at bottom of document), <u>Neem Oil</u> , or <u>2% Horticultural Oil</u> .
Leaves - Scorch	Winter injury	Edges of leaves turn brown in spring or winter	Move plants to a more protected location or make protective walls.
Leaves - Spots	Various fungal leaf spots	Visible on tops of leaves	Ensure good air circulation with proper plant spacing, avoid getting foliage wet when watering, pick up any leaves on the ground.
Leaves - Stippling	<p>Lace Bugs</p> <p>Mites</p>	<p>White spots on top of leaves, black spots on bottom of leaves</p> <p>Grayish or dull upper leaf color. In advanced infestations, webbing may be present.</p>	<p>Check late April and early May. Spray <u>Insecticidal Soap</u> or <u>2% Horticultural Oil</u> thoroughly on tops AND bottoms of leaves. Apply until plants are entirely coated.</p> <p>Take a piece of paper and tap, look for something falling. Spray <u>Insecticidal Soap</u> or <u>2% Horticultural Oil</u></p>

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Leaves - Stippling (con't)	Mites (con'td)		thoroughly on tops AND bottoms of leaves. Apply until plants are entirely coated.
Leaves - White Coating	Powdery Mildew	May be on upper and/or lower leaf surfaces	Ensure good air circulation with proper plant spacing. Apply <u>Neem Oil</u> or <u>Sulfur</u> (see Notes) as needed.
Leaves - Yellowing	<p>Older leaves dropping</p> <p>Soil pH too high</p> <p>Nutrient deficiency</p> <p>Azalea Bark Scale</p> <p>Azalea Leaf Rust</p>	<p>Interior leaves</p> <p>Get a high quality soil test to determine soil pH.</p> <p>low Iron or Magnesium</p> <p>Leaves may be coated in a black sooty mold</p> <p>Bright orange-yellow spots</p>	<p>Natural process.</p> <p>Use <u>Soil Acidifier</u> to drop soil pH.</p> <p>Apply <u>Chelated Iron</u> or <u>Epsom Salts</u>, as indicated by soil testing.</p> <p>Inspect for white egg sacks in twig forks April-June, and for beneficial ladybugs who may be eating them (look for holes in the egg sacks). If there are no good bugs, treat with <u>2% Horticultural Oil</u>, <u>Neem Oil</u>, or <u>Spinosad</u>.</p> <p>Deciduous Azaleas most prone. Ensure good air flow with proper plant spacing, remove and destroy diseased</p>

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Leaves - Yellowing (cont'd)	Azalea Leaf Rust (cont'd)		leaves. Apply <u>Neem Oil</u> or <u>Sulfur</u> .
Flowers - Disfigured	Leaf & Flower Gall (Exobasidium) Ovulinia Petal Blight	Puffy areas on buds, petals, and flowers Water-soaked spots quickly enlarge, flowers feel slimy and collapse. Spread by bees and wind. Most likely to occur in wet, mild weather 50-70°F.	Do not threaten health of plants, just unsightly. Hand pick to remove. Sanitation! Remove diseased blossoms and top layer of soil and/or mulch. Bag and burn, destroy or otherwise remove from your property. Composting will not kill the spores. Replace with fresh soil and/or mulch. <u>Sulfur</u> may help.
Flowers - not blooming	Winter injury Pruned at the wrong time Excessive shade	Rapid temperature drop in fall, very cold winter, or spring freeze Prune at the appropriate time Provide more morning light	Move plants to a more protected location or make protective walls. Prune immediately post-flowering. Transplant or thin overhead branches.
Branch Dieback	Botryosphaeria (Rhododendron) or Phomopsis (Azalea)	Scattered dying branches, leaves turn brown, droop, roll inward but remain attached to stems which may turn reddish brown. May cause cankers that can eventually girdle plants. Moves fast in old stems, with branches dying at any time.	Opportunistic fungal disease that takes advantage of stressed plants. Infection often follows after drought stress - keep happy, watered appropriately, with mulch, pruned out infected branches. Plant resistant cultivars (see Notes at bottom).

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Branch Dieback (con'td)	<p>Phytophthora (name means Plant Destroyer)</p> <p>Rhododendron Borer</p> <p>Rhododendron Stem Borer</p>	<p>Leaves on tops of branches wilt, curl, and turn brown, looking burnt. Some plants may not show symptoms, but can still spread. Moves fast in newer soft stems, with shoots dying during periods of new growth.</p> <p>Wilting of leaves and twig dieback</p> <p>Wilting terminals (growth bud at branch tip) and dieback</p>	<p>Avoid poorly drained compacted soils and overhead watering. Amend soil well, plant root ball high. Prune out infected branches promptly or remove diseased plants entirely - can spread. <u>Actinovate</u>. Plant resistant cultivars.</p> <p>Prune off suspicious branches and split open to look for larvae. Prune out and destroy all wilting branches. Beneficial nematodes may be helpful. Remove heavily infested plants. Their major predator is woodpeckers.</p> <p>Adults visible May-July. Prune out and destroy wilting branches.</p>
Entire Plant actively dying	<p>Phytophthora Root Rot</p> <p>Black Vine Weevil</p>	<p>Wilting and shoot dieback. Black spreads from fibrous roots to the rest of root system. Weakly rooted plants can easily be pulled out. Plants will appear drought stressed but watering doesn't help. Cankers may appear.</p> <p>same as above. Larvae feeding on roots and crown can be lethal.</p>	<p>Avoid poorly drained compacted soils and overhead watering. Amend soil well, plant root ball high. Select resistant cultivars (see Notes). Once soil is infested, switch to plants like Clethra, Itea, or Physocarpus.</p> <p>Select resistant cultivars (see Notes), inspect at night, grow in containers. <u>Beneficial Nematodes</u> may be helpful.</p>

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Entire Plant Actively Dying (cont'd)	Twobanded Japanese Weevil	same as above. Larvae feeding on roots and crown can be lethal.	Place tray under plants and jiggle - adults will drop. <u>Pyrethrin</u> .
	Water Stress	Shallow, fragile root systems can easily desiccate.	Thoroughly irrigate. Keep an eye on plants, they may be more prone to health issues.

Notes:

- Insecticidal Soap is not effective against eggs.
- Sulfur can damage plants in hot, dry weather. Do not use it within 20 to 30 days of applying oils, as they can react and damage plants. Do not use Sulfur when temperatures are above 80F. Follow directions on containers.
- Thoroughly sanitize all tools after pruning infected plants.
- Rhododendrons with very good to excellent resistance to Black Vine Weevil (*Otiorhynchus sulcatus*): 'Cowslip', 'Exbury Naomi', 'Jock', 'Lucky Strike', 'Moonstone', 'Oceanlake', 'PJM', 'Rainbow', 'Rose Elf', 'Sapphire', 'Snow Lady', 'Vanessa', 'Virginia Richards' and others. According to Washington State University, 'PJM' has the strongest resistance of all cultivars listed.
- Rhododendrons considered resistant to *Botryosphaeria*: 'Boursalt', 'Chionoides White', 'Cunningham's White', 'English Roseum', 'Le Barr's Red', 'Roseum Two', and 'Wissahickon.'
- Azalea cultivars least susceptible to *Phomopsis*: 'Delaware Valley White,' 'Hershey Red,' 'Pink Gumpo' and 'Snow.'
- Rhododendrons with at least moderate resistance to *Phytophthora cinnamomi* (the most common species): 'Anna H Hall', 'Brittany', 'Caroline', 'English Roseum', 'Ingrid Mehlquist', 'Martha Isaacson', 'Normandy', 'Pink Trumpet', 'Professor Hugo de Vries', 'Red Head', 'Rocket', 'Serenade', 'Yaku Princess' and more.
- Azaleas most resistant to *Phytophthora*: *Rhododendron poukhanense*, 'Corrine Murrah', 'Delaware Valley', 'Fakir', 'Formosa', 'Hampton Beauty', 'Higasa', 'Merlin', and 'Pink Gumpo'.
- Some Azalea cultivars that are most susceptible to *Phytophthora* include: 'Coral Bells', 'Hershey Red', 'Hino Crimson', 'Hinodegiri', and 'Pink Pearl'. If you already have issues with *Phytophthora* in your landscape, best to avoid these.

Version 1.2, Aug 22