



Pests and How to Treat Them

PESTS AND RECOMMENDED TREATMENTS	
Pest	Recommendation
FUNGUS	
Black spot	Baking soda mix, Cease, or Liquid Copper
Botrytis	Cease
Blight	Remove infected leaves, ensure airflow, avoid watering leaves (use drip irrigation or careful hand watering).
Downy mildew	Potassium Bicarbonate
Fusarium wilt (tomatoes)	Remove infected leaves. Make sure plant is getting enough water.
Gray mold (botrytis blight)	Remove infected leaves, ensure airflow, avoid watering leaves (use drip irrigation or careful hand watering).
Lawn fungus	Many lawn fungi are caused by a stressor such as low nitrogen, compacted soil from heavy use, or not enough water. <i>See the Lawns section, p. 7.</i> Make sure to remove and burn infected lawn clippings.
Peach tree leaf curl	Liquid Copper. Spray entire tree after 90% of the leaves have dropped in the fall and again in the early spring, just before the buds open.
Phytophthora (affects tomatoes and potatoes)	Apply Actinovate to soil.
Powdery mildew	Potassium Bicarbonate
Rust	Liquid Copper. Apply sparingly.
INSECTS	
Ants	Diatomaceous Earth
Aphids	Insecticidal soap
Cabbage worms	Hand pick, then use DiPel/BT.
Caterpillars – brown tail moths	<i>See the Difficult Problems section below, p. 20.</i>

PESTS AND RECOMMENDED TREATMENTS - continued	
Pest	Recommendation
INSECTS - continued	
Caterpillars – tent making	<i>See the Difficult Problems section below, p. 20.</i>
Corn earworms	DiPel/B
Flea beetles	Mainly eat seedlings. Diatomaceous Earth dusted on soil or Kaolin clay dusted on baby plants can help. Nematodes applied to the soil in spring can disrupt the lifecycle of the larvae.
Japanese beetles	Hand pick. <i>For treatment of grubs that grow from Japanese beetle eggs, see the section about grub control below, p. 19.</i>
Lily beetles	Hand pick.
Potato beetle	Hand pick. Neem oil
Scale	Hand pick insects. Spray infected plant with horticultural oil, which smothers the scale.
Spider mites	Azamax
Thrips	Insecticidal soap, neem oil
Ticks	Spray with a plant-based pesticide such as Mosquito Free, best done by a professional applicator. <i>See the Difficult Problems section, p. 19.</i>
Tomato horn worm	Hand pick.
Whitefly	Insecticidal soap, neem oil
INVASIVES	<i>See the paragraph about barberry removal in the Difficult Problems section below, p. 20.</i>
SLUGS & SNAILS	Hand pick. Place a small dish containing beer or 1 cup water mixed with 1 tsp. flour, 1 tsp sugar, ½ tsp. yeast. Sluggo
WEEDS	<i>See the Gardens and Driveways sections, pp. 10, 13.</i>
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NATURAL PESTICIDES

Most are available at garden centers; some are made at home.

Recommended product	Purpose	Directions for use	NOT recommended
FUNGICIDES			
Actinovate	Grows a beneficial bacteria on plants to prevent fungal disease	Water soluble powder. Spray on soil early in season.	Synthetic pesticides such as mefenoxam 2 AQ, metalaxyl, chlorothalonil 720 SFT
Baking soda mix	Many different types of fungus	Mix 1 TBLSP baking soda, 1 TBLSP vegetable oil, and 2 drops of liquid dishwashing soap with 1 gallon water	Same as above
Cease	Preventative	Liquid. Spray on soil and leaves	“
MilStop	Preventative	Water soluble powder. Spray on soil	“
Liquid Copper	Peach tree leaf curl	Spray the entire tree after 90% of the leaves have dropped in the fall and again in the spring, just before the buds open.	“
Mineral oil (Horticultural oil)	Useful for flowering trees and shrubs. Powdery mildew, scale, mites and other insects, fall army worms and corn ear worms. Can be used for eggs laid in the fall.	Spray	“
Potassium Bicarbonate	Powdery mildew and similar fungus	Spray	“
HERBICIDES			
BurnOut Weed and Grass Killer	Driveway weeds	Concentrate made with citric acid and clove oil, diluted with water	Roundup

NATURAL PESTICIDES - continued			
Recommended product	Purpose	Directions for use	NOT recommended
HERBICIDES continued			
Corn gluten meal	Prevents germination of seeds. Works only on annual weeds, such as crabgrass and purslane, not perennial ones such as dandelion, thistle, plantain	Apply in spring; by-product of corn syrup production.	Weed & Feed products, which kill both annual and perennial weeds, contain 2,4-D.
Sulfur pellets	Reduces pH to discourage weeds.	Driveway and patios. Use with care, as run-off can lower ph for nearby desirable plants, including grass.	Roundup
Vinegar mix	Driveway weeds	Spray. <i>See recipe in Driveways section, p. 13.</i>	Roundup
INSECTICIDES			
AzaMax	Spider mites, cucumber beetles	Neem oil	
DiPel/BT (bacillus thuringensis)	Caterpillars	Liquid or powder dissolved in water	Products containing imidacloprid
Insecticidal soap (Safer's brand, for instance)	Insects that attack leaves and stalks. A good start in place of most chemical pesticides.	Concentrate. Spray above ground material.	Products containing bifenthrin imidacloprid, and other synthetic insecticides
Kaolin clay	European apple sawfly, plum curculio, Japanese beetle, leafhopper, Colorado potato beetle, thrips	Powder, dust on leaves. Use on production crops (fruits, veg, flowers), as it creates a white coating on leaves.	Same as above
Mosquito Free	Tick control	Concentrate. Best applied by a professional.	Products containing bifenthrin
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NATURAL PESTICIDES - continued			
Recommended product	Purpose	Directions for use	NOT recommended
INSECTICIDES continued			
Milky spore	Biological organism. Japanese beetle grub control	<i>See information on grub control in the Difficult Problems section below, p. 19.</i>	GrubEx
Mineral oil, also known as horticultural oil	Useful for flowering trees and shrubs. Can be used on vegetables. Scale, mites, many other insects, fall army worms and corn ear worms, insect eggs laid in fall	Concentrate. Spray above-ground material.	Products containing bifenthrin, imidacloprid, and other synthetic insecticides
Neem oil (from the neem tree, native to South Asia)	Both an insecticide and a fungicide. Kills pests after they have eaten leaves sprayed with it. Whitefly, aphids, Japanese beetles, moth larvae, scale, and spider mites	Use as a last resort and with extreme care. Toxic to bees. Concentrate, spray above-ground material, but not when bees are present.	Same as above
Nematodes	Biological organism. Japanese beetle grub control	<i>See information on grub control in the Difficult Problems section below, p. 19.</i>	GrubEx
SLUGICIDES			
Sluggo	Slugs and snails	Use after hand picking and setting beer traps. Spread pellets around plants.	Slug pellets containing metaldehyde or methiocarb
NOTES			

DIFFICULT PROBLEMS

JAPANESE BEETLE GRUB CONTROL. Islanders have had success by applying two biological organisms – milky spore and beneficial nematodes. The spores contain a bacterium that multiplies inside the grubs, leading to their death in 1-3 weeks. The nematodes help to spread the bacterium. Follow the package directions, as weather conditions and proper watering are important. After two years, control can last from 6-10 years.

- *For areas that you know have been infected by Japanese beetles*

Late April - May	Remove dead grass. Spread mixture of equal parts loam and compost evenly over area. Apply milky spore. Repeat after 7-10 days. After another 7-10 days, when the temperature is consistently over 50 degrees, apply both milky spore and nematodes. Seed area generously, cover with straw, and water daily until the seed germinates.
June	Apply both milky spore and nematodes.
September	“ “

- *For prevention*

For two consecutive years apply both milky spore and nematodes as follows:

Mid-late April	Apply milky spore.
When temperature is consistently over 50 degrees	Apply nematodes.
Mid-June	Apply both nematodes and milky spore.
Mid-September	“ “

TICK CONTROL. Insecticides made from natural oils such as eucalyptus and cedar are effective in controlling ticks. Spraying should be done by an experienced applicator who is knowledgeable about where ticks are located and sensitive to particular foliage and pollinator-friendly plants that should not be treated. For more information about ticks and how to control them, see <https://www.ticksonislesboro.com/>

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BROWN TAIL AND OTHER MOTHS

- *Brown tail moth.* In the late winter/early spring the cocoon-shaped nests are visible on the tips of tree branches. Cut the branch below each nest and drown the nest in a pail of sudsy water. When the eggs hatch into caterpillars in late summer, Dipel can be sprayed on tree leaves, but they are often hard to reach. Large trees are best treated by a professional arborist/applicator (see Commercial Suppliers section).
- *Forest tent caterpillar moths* make their triangular white nests in the crotches of tree branches in the spring. These can be removed with Dipel; cutting them out or flaming them with care is also possible.
- *Fall webworm moths* make nests similar to those of tent caterpillar, but in the late August/September. Remove with Dipel or cutting or them with care.

BARBERRY REMOVAL

Cut back plants back and dig out the roots with an uprooter or weed wrench (look online). Cover with a barrier of cardboard or newspaper to keep from re-sprouting.