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Apple: Leafrollers

Use *Integrated Pest Management (IPM)* for successful plant problem management.

Biology

Characteristic signs of leafroller feeding include leaves that are rolled and tied in place with webbing, often with frass in the webbing. Damaged leaves are often near shoot tips and may be skeletonized or chewed. Leafrolling caterpillars on apple are usually green with light to dark brown or black heads. The caterpillars may be up to 1" in length at maturity. The adult moth of the obliquebanded leafroller, a common pest on apple, is an orange-brown, bell-shaped moth about 1/2" long. The adult of the pandemis leafroller is a buff-colored moth with tan bands on the wings. Fruittree leafrollers may also be found on apple.

Management Options

Non-Chemical Management

- ~ Hand-pick and destroy individual caterpillars when practical.
- ~ Pinch to kill caterpillars inside rolled leaves.
- ~ Encourage natural enemies of caterpillars including birds, parasitic wasps and flies, and predacious beetles. Avoid use of broad-spectrum insecticides which kill beneficial insects.

Select non-chemical management options as your first choice!

Chemical Management

IMPORTANT: Visit *Home and Garden Fact Sheets* for more information on using pesticides

Bacillus thuringiensis (Bt) will control leafrollers only if they are actively feeding. Use a spreader-sticker with liquid Bt formulations. Oil applied as a delayed dormant spray will kill overwintering eggs. Apply spinosad once around the time of petal fall. Homeowners should not make foliar applications to trees over 10 ft tall. Consult a commercial pesticide applicator for treatment of trees and shrubs over 10 ft. tall.

Listed below are examples of pesticides that are legal in Washington. Always read and follow all label directions.

- ~ All Seasons Horticultural & Dormant Spray Oil Conc [Organic]
 - active ingredient: oil/pet distillate
 - EPA reg no: 4-80
- ~ Bonide Captain Jack's Deadbug Brew R-T-U [Organic]
 - active ingredient: spinosad (spinosyn A+D)
 - EPA reg no: 4-472
- ~ Bonide Thuricide BT Conc
 - active ingredient: *Bacillus thuringiensis* subsp. *kurstaki*
 - EPA reg no: 4-226
- ~ Bull's-Eye Bioinsecticide
 - active ingredient: spinosad (spinosyn A+D)
 - EPA reg no: 62719-314-56872
- ~ Monterey Garden Insect Spray [Organic]
 - active ingredient: spinosad (spinosyn A+D)
 - EPA reg no: 62719-314-54705
- ~ Naturalis L
 - active ingredient: *Beauveria bassiana*
 - EPA reg no: 53871-9
- ~ R-T-U Year-Round Spray Oil
 - active ingredient: oil/pet distillate
 - EPA reg no: 6218-78
- ~ Safer Brand BioNEEM Multi-Purpose Insecticide & Repellent Conc [Organic]
 - active ingredient: azadirachtin
 - EPA reg no: 70051-6-42697

~ This list may not include all products registered for this use.

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Images



~ Caption: Leafroller damage on apple
~ Photo by: A.L. Antonelli



~ Caption: European leafroller
~ Photo by: S.M. Fitzpatrick and J.T. Troubridge



~ Caption: Obliquebanded leafroller adult
~ Photo by: J.F. Brunner