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## The Triumphant Return of the Redbud Leaffolder

Eric Rebek, Extension Entomologist

Redbud leaffolder appears to be gearing up for another big year in 2013. The diagnostic lab has received several calls this week about damage to redbuds and I observed more than a few affected landscapes over the weekend. Infested trees have discolored leaves that are rolled or folded at the leaf margins. If you inspect the leaves carefully you will find a caterpillar or two wrapped inside.



**Description:** The adult is a small moth with dark brown wings that have 10 small white spots. The head and collar are also white. It is slightly over 1/4 inch long and has a wingspan of about 1/2 inch. Eggs are oval, white, and very small. Small larvae are white, but during the latter part of the next to last instar dark alternating cross bands appear. The mature larva has alternating white and black bands and is about 1/2 inch long. The dark brown pupa is held to a leaf by a sparse, loosely made web.



**Distribution:** This insect is widespread over the native range of redbud, Delaware and Maryland west to Illinois and Kansas and southward. It is found over most of Oklahoma as far west as Woods and Tillman Counties.

**Life Cycle:** The redbud leaffolder overwinters as a pupa attached to a fallen leaf. They may become detached from the leaf and come to rest in debris or on the surface of the soil. Adults emerge in late April and early May and lay eggs on leaves near the veins during May. The first generation continues through June. Second- and third-generation eggs are laid in a thin web in a folded leaf. The second generation occurs in late July and August and the third in September and early October. The third generation overlaps the second in the fall. During rainy weather a fungal disease sometimes attacks and kills the larvae.

**Hosts:** Redbud is the only known host.

**Damage:** In Oklahoma, this insect often causes severe damage to the foliage of redbuds, but rarely kills affected trees. Characteristic injury is folding of the edge of the leaf onto the upper surface, fastened together with strands of silk. Heavy infestations may result in two to four folded areas on a leaf. Leaves may also be tied to each other or to nearby surfaces. Within the folded areas, larvae feed on the upper surface layer of the leaf. This causes drying of the leaf, which then turns brown. Severely damaged leaves die and drop from trees.



**Inspection and Control:** Look for the characteristic leaf folds to find this insect. Damage is often confined to a tree or group of trees and the insect does not spread rapidly. The best control for this pest is usually achieved by cleaning up leaf debris in the fall. This removes overwintering pupae, which emerge as adults the following spring. If chemical control is needed, foliage should be sprayed during late April or early May. A spreader/sticker is often helpful to hold the insecticide on the leaves. Another application should be made about one month after the first. Thorough coverage is a must and

the application should cover the upper surface of the leaves. Spraying foliage to run off or heavy drip will normally ensure adequate coverage. Chemical controls for caterpillar pests can be found in the OSU Extension Agents' Handbook of Insect, Plant Disease, and Weed Control (publication E-832). Homeowners can be directed to OSU Extension Fact Sheet EPP-7306: Ornamental and Lawn Pest Control for Homeowners.

## **References:**

Major Horticultural and Household Insects of Oklahoma. OSU Extension Publication E-918.

## Dr. Richard Grantham Director, Plant Disease and Insect Diagnostic Laboratory

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