



## Celery Leaf-tier

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### Introduction

Celery leaf-tier, *Udea rubigalis* (Guenée), is a moth in the family Crambidae in the order Lepidoptera. This species is also known as the greenhouse leaf-tier and is a sporadic pest of celery and other crops.

### Description

The adult moth may be colored tan, light brown, or reddish brown. There are several loopy, wavy dark lines across the wings (Fig. 1). Some lines may form open circles. Wing patterns may vary in darkness and definition among individuals. There is a line of small dark dots at the bottom of the wings, and a fringe of brown hairs on the lower edge. The legs are light colored. Some of the mouthparts protrude in front of the prominent eyes, giving the moth the appearance of having a snout. The moth is lighter colored underneath, with darker brown speckles on the wings and the body. The body and the wings form the shape of a triangle. Adult moths have a wingspan of roughly 2 cm (0.8 inch).



Figure 1. Adult celery leaf-tier (Mark Dreiling, Bugwood.org).

The larva is a pale greenish-yellow caterpillar with two pale stripes along a dark midline and a light

brown head capsule (Fig. 2). The tapered body is shiny, smooth-skinned, sparsely haired, and looks somewhat transparent. Mature larvae measure about 19 mm (0.75 inch) long.



Figure 2. Larval celery leaf-tier (Tom Kropiewnicki, CC BY-NC-SA 3.0).

### Common Host Plants

Celery leaf-tier feeds on a wide host range and has been reported from beets, celery, cabbage, and leafy greens such as lettuce and spinach. It damages greenhouse plants and ornamental flowers such as chrysanthemum, asters, petunia, begonia, coleus, and carnations. Numerous weedy wild host plants support celery leaf-tier, including goldenrod, clover, pigweed, and thistle.

### Distribution

Celery leaf-tier can be found throughout the eastern half of the United States.

### Damage

Celery leaf-tier larvae skeletonize the leaves of their host plants and also feed on the stalks. Damaged plants have a brown or silvery look as the remaining leaf tissue dries out. Larvae tie the leaves together with silk to make feeding and pupation shelters. Larvae may feed within the canopy and damage may not be apparent from the outer periphery.

## Cultural Control

Clip off webbed leaves on host plants and crush or otherwise destroy the caterpillars or pupae within them. Destroy weeds in and around the garden that may shelter larvae and resting adults. Harvest early and plow under all crop refuse to destroy any remaining pests.

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## Thresholds

For celery plantings, select five different sites within the planting. Each week, inspect 20 plants in each spot for celery leaf-tier larvae. If there are 2 or more larvae per 100 plants at more than 4 weeks before harvest, chemical treatment is warranted.

## Organic/Biological Control

Pyrethrin spray or dust can be used, but must be applied when caterpillars are young and before substantial webbing has been produced. In celery, make two applications of pyrethrin dust one hour apart. The first application should drive the larvae from their webs and shelters, and the second application should kill them.

Bt (*Bacillus thuringiensis*) labeled for caterpillars can also be used following the label rates. Bt is more effective in controlling small caterpillars instead of those that are nearly full-grown and not eating as much.

## Chemical Control

Treat with a registered insecticide effective against caterpillars when insects appear in damaging numbers; repeat as needed. As with all pesticides, follow the label instructions carefully with regards to rates and precautions.

For treatment recommendations in commercial fields or greenhouses, see the current [Mid-Atlantic Commercial Vegetable Production Recommendations \(VCE Publication 456-420\)](#) for products labeled against caterpillars.

## Additional Resources

Foster, R. and B. Flood (eds.). 1995. *Vegetable Insect Management*, Meister Publishing Company, Willoughby, Ohio. 128 p.

## Revised

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