



## Blister Beetles

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### Introduction

Blister beetles (Fig. 1) are named for their ability to release a caustic defensive fluid called cantharidin when handled that may raise blisters on bare skin after contact. Multiple species of blister beetle are found in Virginia, where they can be a sporadic pest of gardens. Blister beetles belong to the family Meloidae in the order Coleoptera.



Figure 1. Adult blister beetles (Dave Cappaert, Bugwood.org).

### Description

Adult blister beetles typically measure 1.3-2 cm (0.5-0.75 inches) long. They have a rounded head with a distinct “neck” and long, thin antennae and legs (Fig. 2). The body is relatively soft and not hardened like other beetles. The elytra (wing covers) are flexible and loosely cover the abdomen, which may protrude beyond the edge of the wings (Figs. 1 & 2). The adults of some species are slender and elongated, while those known as “oil beetles” have enlarged abdomens with short wings. Some species of blister beetles found in Virginia are a dull, velvety gray, black, or orangish-yellow. Some blister beetles have striped patterns on the elytra (Figs. 2 & 3). A few species have a notably metallic shine and/or very short wing covers (Fig. 4).



Figure 2. An adult margined blister beetle (Johnny N. Dell, Bugwood.org).



Figure 3. An adult striped blister beetle (Clemson University, USDA Cooperative Extension Slide Series, Bugwood.org).



Figure 4. An adult blister beetle (Bruce Watt, University of Maine, Bugwood.org).

## Life Cycle

Blister beetles have a complete life cycle with egg, larval, pupal, and adult stages. They overwinter as mature larvae in the soil and pupate in the spring. Adults emerge in early summer with peak populations occurring by midsummer. Adults sometimes feed gregariously on plants. Mated females lay eggs in clusters of 30-50 eggs in the soil. Larvae hatch in 10-21 days and search for their preferred foods of clusters of grasshopper eggs in the soil or the nests of ground-nesting bees. The larvae molt multiple times before returning to the soil to overwinter. There is one generation a year.

## Damage

Adults feed on plant foliage and flowers. Common host plants include tomato, beet, chard, legumes, corn, melon, potato, radish, and turnip. They also feed on alfalfa and soybean, as well as some flowering weeds and ornamental plants.

## Cultural Control

Handpick adult beetles while wearing gloves to protect the skin from blisters. Drown the beetles in soapy water.

## Chemical Control

Treat affected plants with a registered insecticide following the label instructions. Repeat as needed. See the [Home Grounds and Animals Pest Management Guide \(VCE 456-018\)](#) for current recommendations for blister beetle control

## Note

Blister beetles are sometimes found in alfalfa fields in bloom, particularly late in the season. Adult blister beetles release the chemical cantharidin when

they are crushed while alfalfa hay is made. This material persists in the hay and is toxic to livestock. Do not feed hay with blister beetles to livestock, especially horses which are very sensitive to cantharidin. Be aware that alfalfa hay shipped from other states may have a greater chance of harboring blister beetles. Contact your veterinarian immediately if you suspect your livestock has cantharidin poisoning from contaminated hay.

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2022

ENTO-526NP