

# Nature's Notebook Phenophase Photo Guide



**PEST PATROL  
CAMPAIGN**

## *Rhagoletis pomonella* apple maggot

### Why Observe?

Native to the eastern states, apple maggot (*Rhagoletis pomonella*) is widespread throughout the U.S. In late spring and summer, adults emerge from the soil and lay eggs in apples. The larvae tunnel into the fruit, causing decay and rot.

We forecast adult emergence based on growing degree days. Apple maggot can be controlled by bagging the fruit, trapping, and spraying with pesticide. In all cases, treatments are most effective if initiated as adults are starting to emerge from the soil. Ideally, treatments are undertaken prior to egg-laying, which occurs ~8-10 days after emergence. The Pheno Forecast map indicates when apples should be protected from maggots using mechanical or chemical methods.



[H.J. Larsen, Bugwood.org, CC BY 3.0](#)

### Tips for Identification

The adult apple maggot fly is about a quarter of an inch long, smaller than a common housefly. It has clear wings with dark markings and a conspicuous white spot where the thorax meets the abdomen. Males have three white stripes down their abdomen; females have four.



[Joseph Berger, Bugwood.org, CC BY 3.0](#)

Be aware that there is variation from individual to individual within a species, so your insect may not look exactly like the one pictured. If you are uncertain whether or not a phenophase is occurring, report a “?” for its status until it becomes clear what you are observing after subsequent visits.



Joseph Berger, [Bugwood.org](http://Bugwood.org).  
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### Adults

One or more adults are seen or heard moving about or at rest.

### Image Needed

email  
[photos@usanpn.org](mailto:photos@usanpn.org)

### Adults feeding

One or more adults are seen feeding with their straw-like tongue (proboscis). If possible, record the substance and species on which they are feeding (for example, nectar, sap, dung, or moist soil) in the comments field. For *Rhagoletis pomonella*, adults feed on the sticky liquid (honeydew) left on leaves and stems by plant-sucking insects.

### Image Needed

email  
[photos@usanpn.org](mailto:photos@usanpn.org)

### Mating

A male and female are seen coupled in a mating position, usually one on top of the other or end to end.

### Image Needed

email  
[photos@usanpn.org](mailto:photos@usanpn.org)

### Egg laying

A female is seen laying eggs. If possible, record the name of the species or substance on which the eggs are being deposited or describe it in the comments field. For *Rhagoletis pomonella*, eggs are deposited in tiny punctures in the skin of a fruit.



J.F. Walgenbach

### Larvae

One or more larvae are seen moving about or at rest. For *Rhagoletis pomonella*, larvae are short, white worms (maggots) with no distinct head capsules. They are found inside fleshy fruits, like apples, cherries or hawthorn fruits.



Whitney Cranshaw, Colorado  
State University, [Bugwood.org](http://Bugwood.org).  
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### Larvae feeding

One or more larvae are seen feeding. If possible, record the name of the species or substance being eaten or describe it in the comments field. For *Rhagoletis pomonella*, a larva found in a fruit can be assumed to be feeding on that fruit.

**Phenophases not pictured:** Dead adults, Dead larvae, Individuals in a trap