MICHIGAN STATE | Integrated Pest Management

Plum curculio in tart cherries

Plum curculio typically migrates into orchards around bloom. The start of their movement from overwintering sites to orchards is most reliably linked with either a maximum daily temperature of 75°F for two to three days, or a mean daily temperature of 55°-60°F for three to six days.

Peak activity and the **critical time for control** usually occur over 10 to 15 days beginning at petal fall. Females are mated before fruit set and are ready to lay eggs in fruit as soon as it becomes available. Egg laying can extend through June.

The female deposits eggs under the skin of the fruit, leaving a crescent-shaped scar just below the egg-laying site. The hatching larva feeds inside the fruit.

Mature larvae drop from fruit and pupate in the soil to complete development. They emerge as adults in late June through August and remain in the orchard until harvest. Adults prefer the dense shade of the tree's inner canopy. In Michigan, this summer generation does not lay eggs until the following spring.

Early-season varieties are considered most susceptible to both feeding and oviposition damage. As fruit mature, older oviposition scars take on a broad, fanlike appearance.

Monitoring: Traps can be used early in the season to capture curculios as they move into and around the orchard. After fruit is present, visually inspect several fruit per tree for signs of feeding or egg laying. Concentrate sampling on trees adjacent to hedgerows and woodlands, especially where damage has occurred in the past.

Beating trays can be used to determine the presence of plum curculio.

Are conditions right for plum curculio?

Forecast models for plum curculio are available at Enviro-weather. Select a weather station from the map that is closest to your location. Then click on "fruit" for a list of weather resources and models for fruit production.





References

Epstein, D., L. Gut, and G. Sundin. 2004. A Pocket Guide for IPM Scouting in Michigan Apples, MSU Extension Bulletin E-2720

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