Thursday May 20, 2026 Issue 1

Consultant's Update

Ridge Quest

Apple flea weevil characteristic "shot hole" damage on apple foliage.

Insect of the Week

Apple Flea Weevil

---------- KELSEY BENTHALL

Apple flea weevil is an orchard pest that is often overlooked. Adult flea weevils feed on the buds and leaves of apple trees. If left untreated, these insects can cause bud termination. Their damage is easily misdiagnosed when low population levels are present. Adult bud feeding looks similar to frost damage, while pupal cases resemble sulfur burns. Currently, organic systems do not have access to proven management options. Studies have shown that an effective management strategy may include a pyrethrum treatment at the tight cluster stage, followed by another treatment one week later. Lime sulfur was considered for management due to its common use in organic orchards. However, studies have shown that it does not effectively control apple flea weevil. Summer adults are commonly controlled by cover sprays targeting oriental fruit moth and codling moth. If left untreated, apple flea weevil can result in up to 90% crop losses.

Adults are small (2-3mm) black weevils. Their hind legs are enlarged to aid in their characteristic jumping. Their bodies are described as punctate (or having many pinpoints). Spring adults emerge from the orchard floor and are active in the tree canopy from the silver tip to the bloom life stage. Their damage is described as "shot holes" due to how they feed in small circles. Most damage is attributed to early-season feeding on developing blossoms. Summer adults are active during mid-June in Michigan. Studies indicate that summer adults will return to the orchard floor to overwinter before producing offspring.

Larvae are white to cream colored, and their head capsule is brown. They are present between the upper and lower leaf cuticles, where they feed on leaf tissue. High populations can lead to reduced photosynthesis. Larvae migrate to the leaf margins before forming a pupal case. Pupae develop inside an air-filled "blister" at the leaf margins. These blisters are typically dry material that is easily broken open when touched. Pupae can be found inside these pupal cases for 5 to 6 days before they emerge as adults.

From The Orchard

The latest local news

---------- CHANDRA BUNKER

This season has been unusually cold, and the bloom has reflected these conditions. The trees are showing signs of stress, and everyone is still waiting to see how the fruit set will develop. As temperatures rise, both insects and trees are expected to become active at the same time. While OFM experienced a limited first flight, a larger emergence is likely with the upcoming warm weather. CM began flying in some areas on May 15, but it is essential to monitor your own blocks for flight activity rather than relying solely on regional biofix dates. Timings based on external sources can be significantly inaccurate for your specific blocks, as local conditions may vary by several weeks. Applying sprays at the correct time is critical; otherwise, you may inadvertently create additional pest management challenges. Consistent and careful trapping, along with proper trap maintenance, is very important.

A reminder on resistance management as you plan treatments for the season: Pre-mixed products can be challenging because they combine two modes of action, making it more difficult to manage chemical rotation effectively. If you applied a product last year at the correct timing but did not observe a reduction in pest pressure, it is important to switch to a different mode of action this season. Repeatedly using the same chemistry without results will not improve outcomes. There is a great chart in the Michigan Fruit Management Guide that will lay all this out for you.

Anne L. Nielsen, John Pote, Krista Buehrer, Matthew J. Grieshop, The Reemergence of an Old Pest, *Orchestes pallicornis* (Coleoptera: Curculionidae), *Journal of Integrated Pest Management*, Volume 3, Issue 3, 1 September 2012. Grieshop, M., D. Brown, K. Buehrer, and N. Walton. 2010. Emerging pest alert: apple flea weevil MSU Crop Advisory Team Alerts, 22 June 2010.