

# OrganicA

a resource for organic apple production

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## Orchard Observations

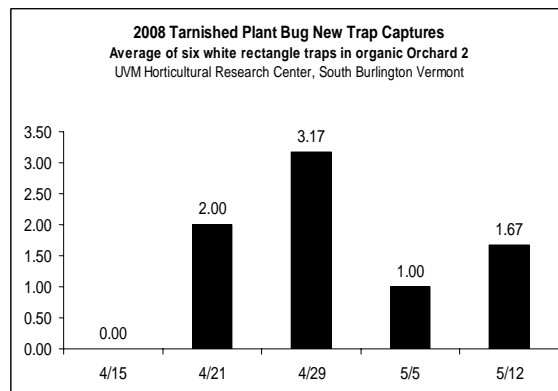
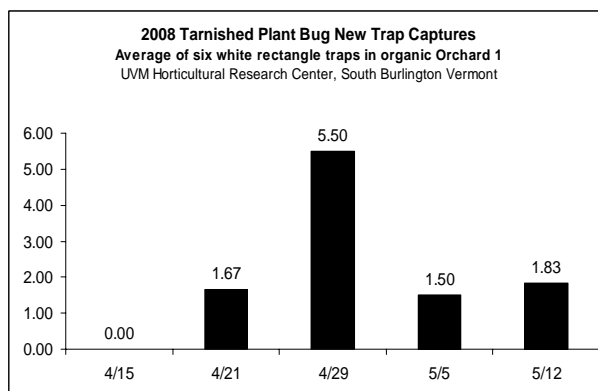
Lorraine P. Berkett  
May 14, 2008

**Stage of Development:** Bloom to early Petal Fall across the five cultivars

Orchard 1 and 2 -- white with blooms and kaolin (Surround).



As I walked the two orchards yesterday afternoon, it was not difficult to find **Tarnished plant bugs (TPB)** in blossoms or on leaves. The good news is that trap captures have peaked (see graphs) but fresh damage and aborted blossoms were observed -- particularly in Orchard 1 and, it seems, particularly on Ginger Gold.

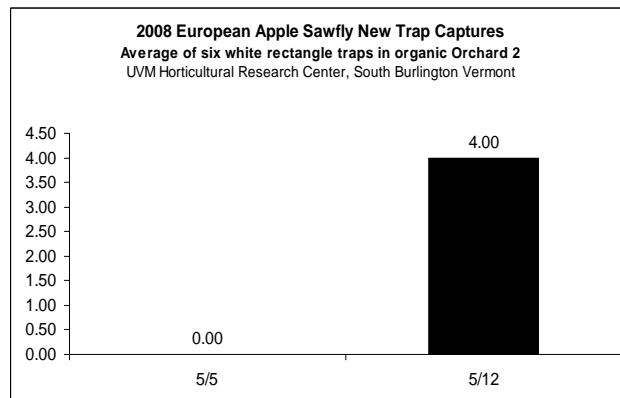
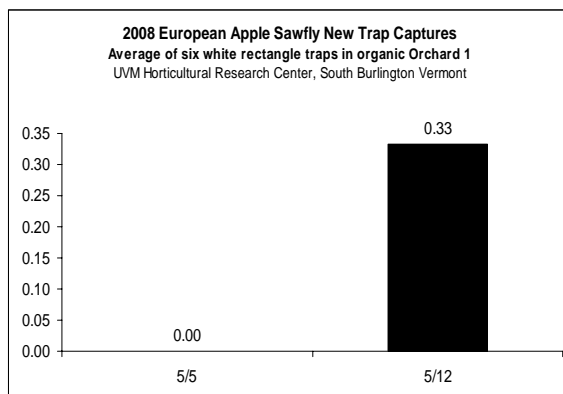




Although not very clear, you can see a TPB on a blossom in the left photo above and near the tip of my finger in the picture on the right, there is a hole in the blossom caused by the TPB. Below is a picture of an aborted blossom cluster which is suspect of being caused by TPB injury.



**European apple sawflies (EAS)** are now being trapped in white sticky traps. We had high populations last year in Orchard 2 where they damaged the fruit on the nurse limbs. The potential difference in EAS populations between Orchard 1 and 2 appears to be reflected in the trap captures to date, where Orchard 2 has over 4 times the number trapped already and is approaching the threshold of 5.





EAS on trap (has orange underside)

We are still in the high risk period for **primary scab infections**. Based on degree-day accumulation, approximately 50% - 70% of the ascospores have matured. If infection did occur in an earlier infection period, lesions should begin to be visible. As of today, no scab lesions have been observed on non-sprayed McIntosh trees at the UVM Horticulture Research Center which we use as an indicator of the potential for scab infection.

Bloom is also a high risk period for **fire blight** infection. We have been using the Maryblyt computer model and entering Skybit weather data to predict the risk of infection. The four conditions needed for infection are:

- (1) open blossoms
- (2) 198 degree hours above 65F since first bloom has been reached (impacts the EIP)
- (3) wetting event (rain or heavy dew)
- (4) average daily temperature of at least 60F

So far, we have had only one or two of these factors present. Today, we ran the program and it is predicted there is a 'High' risk of infection if it rains today. This means that three of the four factors needed for infection are predicted to be present. The missing factor is the EIP which stands for the "Epiphytic Infection Potential". In other words, it has not been warm enough for the bacterial population on the surface of the blossom (i.e., epiphytic) to reach the 'threshold' level. Fortunately, our cool nights deter population growth. However, if it becomes warmer than predicted, this might change.

**Weed Management** -- We have not mowed in either orchard so as to not move more TPB into the trees. Weeds in the tree-rows in Orchard I need to be addressed and we will either flame them after a rain or start to hoe.

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**IMPORTANT:** It is the grower's responsibility to ensure that any crop production practice or material used in the orchard is acceptable in their particular state's organic certification program. Some materials deemed organically acceptable on the National List may not be acceptable in some states. Contact your [federally accredited certifying agency](#) to know what is acceptable and to ensure compliance with regulations in your state.

Where trade names or commercial products are used for identification, no discrimination is intended and no endorsement is implied. Always read the label before using any pesticide. **The label is the legal document for the product use. Disregard any information in this newsletter if it is in conflict with the label or organic certification.**

**We Value Your Input and Want to Address Your Needs**

Please send your comments and suggestions to [lorraine.berkett@uvm.edu](mailto:lorraine.berkett@uvm.edu)

**For more information on the OrganicA Project please see:**

<http://www.uvm.edu/organica/>

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