

 Orchard  Observations
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Stage of Development: ~ 95% Petal Fall on all five cultivars (Note: a few blossoms are still present on a few trees scattered throughout both orchards.)

Apple Scab Ascospore Maturity: It is estimated, based on degree-day accumulation, that 75%-90% of the reservoir of this year's ascospores have matured. We are still in the high risk period for primary infections from the remaining ascospores. Unfortunately, on Friday of last week, we observed primary scab lesions on ornamental crabapple trees that are adjacent to Orchard 1 and 2. This is not good news since the conidia produced in these lesions are a potential source of infection for the orchards. The conidia from these lesions and other lesions that will form on the crabapple trees will be a source for scab infections in the adjacent orchards for the remainder of the season. Our goal in Orchard 1 and 2 has been to prevent primary infections caused by ascospores released from overwintered, infected leaves on the orchard floor. Through sanitation practices we have tried to reduce the potential overwintering inoculum. Through the use of liquid lime sulfur, we are trying to prevent primary infections from ascospores. If we were successful in doing this, we were going to stop fungicide applications for scab in the orchards for the remainder of the season. Now, the conidial inoculum on the crabapples next to the orchards has jeopardized that goal.



Apple Scab primary lesions on crabapple trees adjacent to orchards -- an unfortunate source of inoculum for the remainder of the season.

Fire Blight: Using Skybit weather data and the Maryblyt program to estimate risk of infection, it is predicted that there will be a high risk for infection Sunday and Monday, May 25 - 26, if there is rain and any blossoms are still open. A “high” risk means that three of the four factors necessary for infection are predicted to be present. On Tuesday, May 27, it is predicted that it may be warm enough for infection to take place (i.e., the fourth factor will be present). Hopefully, the few blossoms that are still currently present in the orchards will be at petal fall by then.

Plum Curculio - We will be using the Cornell Plum Curculio (PC) Oviposition Model to determine the end of the period of risk for injury. This is a degree-day model (base 50F) that starts at petal fall. When 308 degree-days have accumulated, it is predicted that PC adults stop immigrating into the orchards. This corresponds to when 40% of the oviposition cycle is complete. We also will be monitoring the occurrence of fresh injury to determine the need to continue kaolin applications.

Codling Moth - We have begun to catch codling moths in pheromone traps at the UVM Hort. Res. Center and set the biofix as May 17th from which we are tracking degree days to determine the optimal time to manage this insect if populations become high.

Weed Management -- This week, Terry Bradshaw ventured out into Orchard I with a weed badger for the first time. You can see from the pictures that it really dug up the weeds (and some apple roots!). We had one casualty -- in the last row, close to the last tree in the row, a tree was taken out. We will evaluate the value of continuing to use the weed badger as a tool in managing weeds given the risk of damage to the trees.



Terry Bradshaw venturing into Orchard I with the weed badger.



The impact of the weed badger on weeds in the tree-row. The arrows point to exposed apple roots (below).



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

For more information on the OrganicA Project please see:

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

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