

NH Integrated Pest Management Newsletter

June 17, 2003

Volume XI

No. 7

New England Apple Pest Management Guides

Yep. They're finally at the UNH Cooperative Extension Publications Center. They cost \$15 each, and are intended to cover 2003 and 2004. There are about 160 pages, complete with the 12 pages of color plates from last year. There are MANY changes and additions, too numerous for me to easily list here.

Distributing the Guides

I was so focused on getting the corrections done, and other problems about getting the guide out, that I didn't think ahead about distribution. The last couple of times we printed the guide (2 and 4 years ago) we had the NH Fruit Growers Association buy most of them, for distribution to its members as a perk. None of us thought of this when the NHFGA members discussed budget issues late this winter. Even if we had thought about it, the final guide price wasn't known at that time. Now there isn't enough money in the NHFGA budget to do this, and officers are busy with fruit thinning and curculio questions. So it looks as though this time we'll have Extension do most of the distribution. For a start, I'll try to bring copies to twilight meetings, and I'll ask if other Extension staff want to distribute some on their visits. If you want to contact the Publications Center, the telephone number is 862-2346. The address is UNH Cooperative Extension Publications Center, 16 Nesmith Hall, Univ. Of New Hampshire, Durham, NH 03824-3597.

Plum Curculio

I expect curculio activity will continue for a while. I anticipate that activity might be prolonged this year, since we had so much cool, cloudy weather. Reports from the field so far show fewer than "average" number of scars so far. That also fits with the coolish, cloudy weather we have had.

Potato Leafhopper

No, I haven't found PLH yet in NH, but they could appear at anytime. We frequently have them appear in late June or early July. When they do appear, it might be of concern on young trees, since infestation can stunt shoot growth. This should be of little or no concern on mature trees.

Leafminers

I'm having trouble finding spotted tentiform and apple blotch leafminers. In the Durham area I searched three orchards Monday, plus several abandoned trees. I found none. They are supposed to be in the sap-feeding stage right now. White apple leafhopper nymphs were easy to find, but not leafminers.

Green Fruitworms

I haven't said much about green fruitworms this year, but the caterpillars are easy to spot on unsprayed apple trees now. Usually they are knocked out by insecticide applications aimed at tarnished plant bug or plum curculio. There are several species, which we collectively call green fruitworms. Most are about fully grown, and will soon pupate. Right now they are feeding on foliage and green fruit.


What's Pith Moth Up To?

In unsprayed trees (or trees of pre-bearing age, that get few insecticide applications) pith moth is fairly easy to find now. Look for a shoot or spur that has had the foliage wilt, possibly turn brown. At first it might look a bit like fireblight damage. If you pull off the dead foliage, and break the twig immediately under the bud, you'll find that it has been bored out, and there is a pinkish caterpillar there. Soon some of these will pupate (inside the bored out twig). Pupae are elongate, with rounded ends, and are either yellowish or brownish. The moths emerge during the summer, and lay eggs on the twigs in late July. Eggs hatch around the first 7 days in August, and the tiny caterpillars bore into the shoots, before they toughen up. There is only one generation each year. They overwinter as partially-grown larvae, in the twigs.

Mite Checking Time

Summer is when we need to be thinking about mites on apples. The oil that we applied around the time of tight cluster was to smother the overwintering mite eggs. If done correctly, only a few mites survive that treatment, and we can relax until about now. In warm temperatures (yes, warm weather will come) the mite life cycle is sped up, so it pays to check leaves to see if mites are building up to worrisome levels. The accompanying chart and instructions will help you judge whether or not you should consider treating for mites. I'd start checks in traditional mite hotspots, like the rows of red delicious trees.

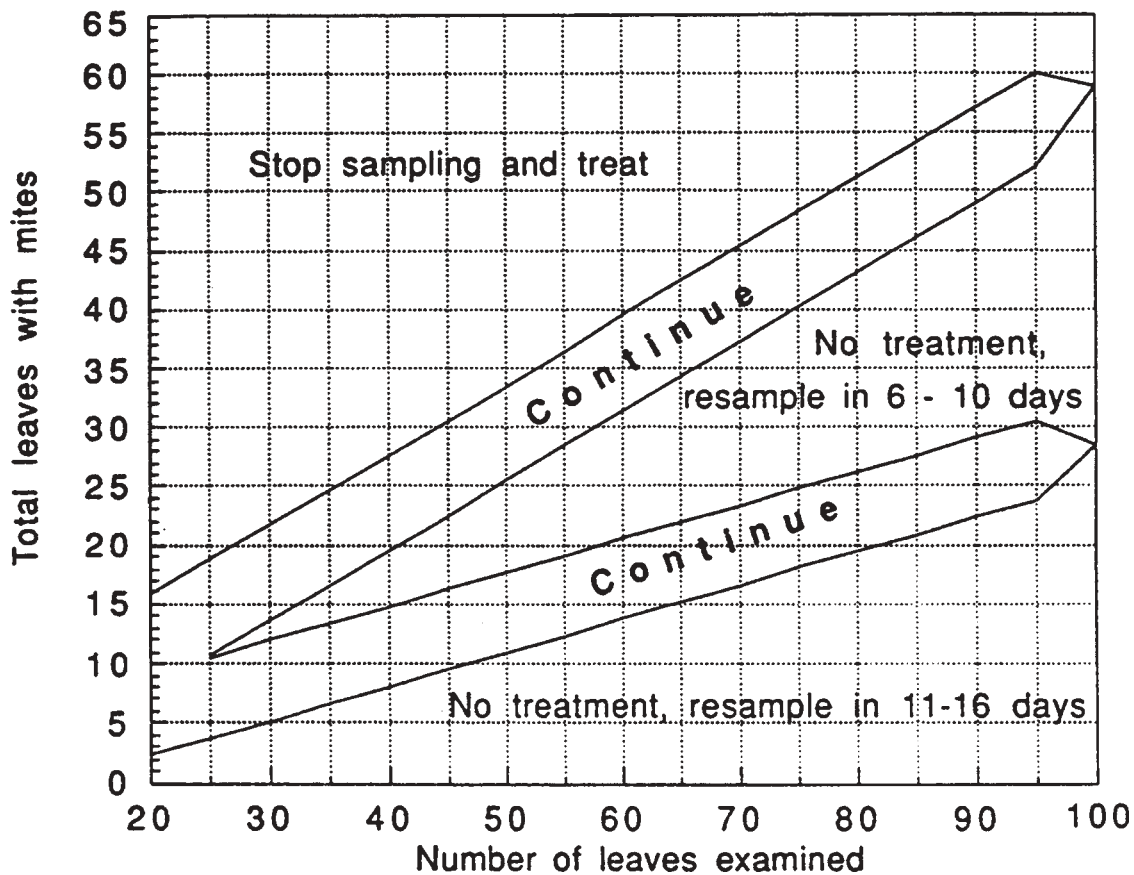
There are a number of possible treatments if you find mite problems. Acramite, Kelthane, and Pyramite are probably the most commonly applied summer miticides; but there are others to consider as well. See pgs. 43-46, and 139 of the 2003-4 New England Apple Pest Management Guide for more details.



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Mite Sampling Chart - Threshold = 2.5 mites/leaf (June 15 - July 15)



* This procedure involves examining middle aged leaves for motile mites (any stage except eggs). Use this chart, which corresponds to a mite density of 2.5 mites per leaf, from June 15 until July 15. You will not be counting mites, but will only determine whether they are present or absent on each leaf sampled.

* Starting with a random tree and sampling every other tree, collect 4 leaves in a plastic bag from each of 5 trees, choosing from each quadrant of the canopy. To make sure the leaves are of intermediate age, pick them from the middle of the fruit cluster.

* Using a magnifier, examine the top and bottom surface of each leaf for motile mites and keep track of the number of leaves containing motile mites. When all 20 leaves have been examined, compare this number with the decision lines on the above chart. If you are in either of the "Continue" zones, take more leaf samples in batches of 10 (5 per tree, for simplicity), adding the number with mites present to your original value while checking the chart again. Continue until you have passed out of the "continue" zone to arrive at a decision. If you reach "Stop sampling and treat", the population is above the threshold and a miticide application is recommended. If you reach one of the "Resample" zones, the population is below threshold, and should remain so for at least the number of days stated. Return at the designated time and conduct another sample. If "6-10 day" resample date falls during 5.0 mites/leaf Threshold period, you can wait for a total of 11-16 days before resampling.

Modified from: Apple IPM; A Guide for Sampling and Managing Major Apple Pests in New York. Agnello, A., J. Kovach, J. Nyrop, H. Reissig, W. Wilcox.