

Organic Apple Production from a Grower's Perspective

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I have managed a small certified organic apple orchard since 1988. It is about an acre with about 140 trees, mostly Jonagold, Liberty, Golden Delicious, Idared, and Melrose on MM111 or MM106. Since 1997 West Haven Farm of Ithaca has also been a partner in this orchard. We market the apples at the Ithaca Farmers' Market and some small wholesale accounts. Our site at 1300 feet elevation has very good air drainage but marginal soils.

In the past few years there have been important developments in Northeast organic apple production methods that have reduced pest damage. The first major change was the introduction of Surround which has allowed us good plum curculio control. Because of that, we are also able to thin the trees on time and are starting to reduce a severe alternate bearing problem. The second was the introduction last year of an approved spinosad product, Entrust. This gave us excellent control of caterpillar pests.

In 2002, the National Organic Program came into full force. To us, this meant that requirements for the products we use became even stricter than before. For instance, I trialed compost tea against apple scab on a few trees. Since I had mistakenly used a non-approved compost product for the tea, those trees were decertified. Another problem we had was that we could not find an organically-approved lime sulfur product that was also registered in NYS.

The 2003 season was wet, and we had a scab control failure. We use sulfur sprays against scab, and control was good in the early season. However, a 2 inch rain on June 1 must have washed off the sulfur residues, and about 17 days later scab lesions were common on the susceptible trees. It is possible that spraying the sulfur and Surround together interferes with the sulfur's effectiveness. Things went downhill from there, as we had a very wet season. I think that a lime sulfur spray after the heavy rain would have improved the situation. Later I found that the lime sulfur product under the Miller label sold in NYS is the same as the approved product (repackaged by Ag Formulators, Inc.), but I didn't know that at the time.

Nonetheless, our Liberty, Melrose, Paulared, Redfree, and other scab-resistant or tolerant varieties graded out better than ever, with 75% or more going into our "select" grade.

Our spray program this year included sulfur sprays from first green to June 21. Surround was applied from pink through June 16. Three of those sprays, including the last two, included Dipel. This presumably gave us reasonable early season caterpillar control. Then we put up pheromone traps and monitored Codling Moth, Lesser Apple Worm, Oriental Fruit Moth, and Obliquebanded Leafroller. We sprayed Entrust on July 7 for the midseason flights, then Dipel on August 16, based on the trap results. Unlike the data from the Geneva Experiment Station last year, at our orchard three of the four pests

tracked close enough together that we felt we could catch most of them on these dates. We put the sprays on one week after the peak flights, trying to target peak egg-laying. OBLR numbers were low and didn't really factor in. There was greatly reduced lep damage at harvest compared to previous years.

We are still dealing with alternate bearing. The orchard yielded over 400 bu. in 2001, was down to around 100 last year, and will come in around 250-300 bu. this year. There are still a number of young replants, especially in an area of interstem trees that did not do well on our soil.

We have been able to get very good prices for our apples—\$7.50 per half peck (about 5.5 lb) of “select” grade at the farmers’ market. Our bushel wholesale price is \$32-\$40. Cider goes for \$5.50 per gallon. There is no doubt in my mind that our apples are highly flavored compared to most—I think because of the lack of an herbicide strip.

Important frontiers for organic apple production include reliable, biologically-based scab control, thinning, and sooty blotch/flyspeck control. Of course, we always need to better understand orchard nutrition and ground cover management, as well as refine our overall pest management programs. I would also like to point out that other Northeast organic orchardists, including Biodynamic farmers, have been able to achieve better results than we have, so we are always learning from them.