

## 2012 Pest Management Review for Western NY

Deborah Breth, CCE-Lake Ontario Fruit Program

An early Spring! We recorded green tip in McIntosh on March 17-19 across the Lake Ontario Fruit region. The abnormally high temperatures between March 12-22 in the mid-70's just a couple miles inland from Lake Ontario and mid-60's along the lakeshore resulted in quick bud development in apples to tight cluster in inland sites and ½ inch green along the lake. The bloom on apples opened in mid-April and freezing low temperatures dipped into the low 20's the end of April resulting in more blossom and fruit loss in apples, peaches, pears, plums, and cherries. The interesting note was the later secondary blossoms that continued to develop, bloom, and set a partial crop of fruit in apples. Preliminary estimations are about 50% of an apple crop. Fruit growers got a lot of radio and TV publicity regarding the risk they take in growing perennial fruit crops and the potential economic impact on local communities if they have no crop.

The extended bloom period resulted in a high risk of fire blight infection requiring disease prediction models to start in early April and run through May. The use of Apogee for growth control was promoted due to the potential light crop and the high risk conditions for fire blight limiting fire blight incidence across the region. We documented 2 more 4-5 year old orchards this season that have lost more than 50% of the trees and are slated for complete removal after harvest. Dr. Herb Aldwinckle's lab was responsible for screening fire blight samples for streptomycin resistance (SmR) to follow up on the new reports from late 2011. A final count of 172 fire blight samples were collected from 42 farms in NY and screened for presence of *Erwinia amylovora* on selective media and then then transferred to media with various concentrations of streptomycin discs. There were 3 samples identified with partial SmR from 2 farms, and 10 samples with complete SmR from 6 farms. The bacteria were then confirmed to be Ea using PCR. It is important to note that not all isolates of Ea from each farm were SmR. But it will be critical to combine antibiotic treatments on these farms and use integrated control strategies. In 2011, there were 5 farms where SmR Ea was detected and in 2012, a total of 11 farms. Initial genetic characterization suggests that all SmR isolates possess the plasmid-borne resistance consisting of *strA-strB* on the transposable element Tn5393.

Farm	# samples	# Sensitive	# Partial Resistant	# Resistant
Williamson	11	6	2	3
Appleton	2	1	1	0
Wolcott	4	3	0	1
Phelps	3	2	0	1
Kendall	13	11	0	2
Wolcott 1	1	0	0	1
Ontario	5	4	0	1
Geneva	4	3	0	1
Totals	43	30	3	10

Apple scab was difficult to control starting with an abundance of inoculum left from 2011. Some growers reduced their late scab season program because of the very light crop. Powdery mildew continues to challenge growers with generally less effective fungicides available.

Codling moth, oriental fruit moth, and lesser apple worm, ESPECIALLY codling moth were very active and with some growers abandoning mating disruption due to the light crop, and trying to use less expensive insecticides, the number of worms detected at receiving stations were increased from 2011 and previous years. There were 462 truckloads of apples with worms detected in 1128 apple samples from 99 growers, 95% were codling moth.

We are detecting European apple sawfly damage across the region but no special controls required yet. Stink bug stings are being detected and a few individual BMSB adults are identified at various receiving sites. No mass sightings of BMSB to date in western NY. We are also noting more apple maggot stings, some with shallow tunnels that stop before they get too deep.