UMASS EXTENSION

Healthy Fruit

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Prepared by the University of Massachusetts Fruit Team

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Annual Summer Meeting

The Massachusetts Fruit Growers Association, Inc. in cooperation with the University of Massachusetts is holding its Annual Summer Meeting - July 10, 2002 at the University of Massachusetts Cold Spring Orchard Research & Education Center, Sabin Street in Belchertown.

Early Apple-Crop Outlook

Jon Clements, Extension Tree Fruit Specialist, University of Massachusetts
Win Cowgill, Agent, Rutgers Cooperative Extension

Based on reports from several sources, here is our early look at how the U.S. apple-crop is shaping up on a regional basis.

Washington Below normal spring and post-bloom temperatures have resulted in a crop that will be near or down slightly from last years moderate crop of 115-120 million bushels. This is particularly true for the Wenatchee district, however, orchards farther south into the Yakima Valley and Columbia Basin are closer to average. The cool spring weather also got the crop off to a slow start and made thinning difficult. Otherwise, fruit quality looks good, and as usual, despite the sub-optimum crop, there will still be plenty of Washington apples to market in 2002-2003.

Michigan The Michigan apple-crop was hit hard by frost/freezes during and following a prolonged bloom. Word out there is the crop is reduced by 50-60% of the normal of 25 million bushels. Time will tell, but expect production to be about 15 million bushels in 2002. Tart cherries in the Traverse City area were all but decimated by frosts around bloom, and the Concord grape crop in southwest Michigan was similarly frozen.

Mid-Atlantic A mixed bag, depending on orchard location. Most growers escaped disaster with the early bloom and spring frosts, but colder locations — particularly in Pennsylvania have experienced significant crop reductions. Soil moisture conditions have improved significantly, however, the long-term drought persists and it s hoped the recent pattern of significant precipitation will hold through the summer. Overall, expect a near or just below average crop of apples from North Carolina, Virginia and West Virginia, Pennsylvania, and New Jersey combined in 2002.

New Jersey — 90-degree temperatures in April accelerated bloom on early cultivars like Gala, followed by three weeks of cool temperatures that prolonged bloom on the rest of the cultivars. Three to eight frost events (depending on micro-climate) occurred up till May 22 in northern NJ. This, combined with poor pollination resulted in light crops in many orchards. Crop load is variable depending on orchard location and cultivar. The Garden State apple-crop is probably down 30-40% total. Severe weather last Thursday dumped up to three inches of rainfall with 50 mph winds. For northern Jersey growers no horticultural drought exists at this time.

New York Hudson Valley growers have good reason to be pessimistic this year — near record early bloom followed by frost/freeze and hail have likely reduced the apple-crop by at least 50%. Cool, cloudy weather during and following bloom did not help matters. Growers are actively soliciting emergency/disaster assistance to weather the poor growing season they are already facing. Western New York fared much better under the influence of Lake Ontario, resulting in a later bloom date, and although low critical temperatures for bud damage were achieve during bloom, it appears the apple crop is close to average at this point.

New England Southern New England was on-track for a record early bloom and a disaster in the making, similar to what happened in the Hudson Valley, but fortunately we were not as far ahead in bloom and the weather cooled off sufficiently during bloom to slow things down. Still, orchards in lower sites in Connecticut and Rhode Island and west of the Connecticut River in Massachusetts suffered moderate frost/freeze injury and considerably reduced fruit set. Eastern Massachusetts, Vermont, Maine, and New Hampshire are now looking at average apple-crops. Chemical thinning was easy, and there is some debate as to how much natural thinning was achieved. Abundant precipitation and warm temperatures have accelerated fruit growth, however, the long bloom period has also resulted in considerable variation in fruit size in many orchards. Overall, expect an average (or slightly below) crop of apples coming out of New England in 2002.

Apple Maggot

Traps should be hung by now; we have not yet seen much activity but other areas have reported some flight. Fruit is not very susceptible at this time of year.

Leafminers

New mines of the summer generation should be starting to appear now, though to-date very little activity has been seen. There has been a fair amount of parasitism and other mortality, so it's conceivable (we can always hope) that the summer

generation could be less than expected where spring generation mine levels were ambiguous Monitor closely for the next week or two so that insecticide can be timed according to the appearance of the early sap-feeding mines.

Some orchards have noticeable populations of lyonetia leafminers; mines of this insect occur mainly on terminal foliage and appear as brown blotches. Pupation occurs in a very easily identifiable silken "hammock" on the underside of the leaf. No thresholds have been set for this leafminer, but watch young trees for excessive damage. Materials that are effective on our traditional leafminers are likely effective on lyonetia leafminers as well.

Leafhoppers

Potato, rose, and whiteapple leafhoppers are noticeable on foliage of young and mature trees; watch young trees especially. In a young block at the UMass Cold Spring Orchard, Potato leafhoppers were in evidence late last week as was the typical leaf yellowing they cause, as well as a small amount of whiteapple leafhopper injury. Researchers in the Hudson Valley report that a rate of 0.5 oz per 100 gallons of Provado has done a good job in controlling leafhoppers, making it more feasible to use this material in repeated applications for control of potato leafhopper.

Aphids

In some orchards, populations of predators seem to be a bit behind the aphid populations. Still, on close examination, syrphid eggs or newly hatched larvae are often visible. Also, ladybug adults and larvae are unusually active. In addition, sites which have been receiving heavy rain showers should not experience a buildup of aphid honeydew.