



# Healthy Fruit

Volume 10, 2002

Prepared by the University of Massachusetts Fruit Team

Issue 13 - June 25, 2002

## **Massachusetts Fruit Growers Summer Meeting**

During a visit with Rick Clark at OESCO this past week, he mentioned a new piece of equipment he will be bringing to the annual meeting. Although he would not tell me what it was, he assured me that growers have never seen anything like it before.

Any ideas what it could be? A space-based laser for pest control? A REALLY BIG inflatable dome to protect orchards from frost and hail? A remote-control sprayer than loads itself and can be controlled from your computer s joy stick?

I guess we ll all just have to be there on July 10<sup>th</sup> to find out.

## **Nova Scotia: A Tradition of Apple Growing**

Jon Clements, Extension Fruit Specialist, UMASS  
Win Cowgill, County Agricultural Agent, Rutgers, the State University

The International Dwarf Fruit Tree Association (IDFTA) just landed in Nova Scotia — birthplace the North American tree fruit industry — for it s 2002 Summer Tour. Here, the first apple trees were planted at The Habitation in the Annapolis Valley, a colony established by Samuel de Champlain in 1605 for the French king. From a peak of nine million bushels of apples exported to England prior to WW II, Nova Scotia now produces three million bushels annually, primarily for it s own domestic market. More recently, however, Honeycrisp are being exported to the U.S. in numbers.

Of the total apple production, 1/3 is utilized for juice (at a return to growers of 5.5 cents Canadian), 1/3 for pie slices (8.5 cents for canned slices, 12.5 cents for frozen pie slices), and 1/3 for fresh. Cultivars grown include: Northern Spy, Novaspy, and Idared for processing; and the traditional varieties McIntosh, Cortland, Gravenstein, Spartan, and Red Delicious for the fresh market. Now, the newer hot varieties Gala, Jonagold and Honeycrisp are being planted in quantity.

Fortunately for Nova Scotia apple growers, the federal government offers a strong crop insurance program — 90 % of the Province s growers purchase crop insurance, the premium based on their ten-year production average. Historically, they have received \$2 back for every \$1 invested in crop insurance premiums. The Canadian government pays for 50% of the premium, similar to the U.S. program. Crop losses occur primarily as a result of frost and/or freezes, as well as hail or poor fruit set.

The IDFTA tour visited several younger, high-density orchards planted to Honeycrisp and Jonagold strains. Nova Scoti growers rely on more vigorous rootstocks because of

weak soils, cold and short growing season, and more new plantings of the weaker growing Honeycrisp. An on-farm rootstock research plot with Honeycrisp on Geneva 30, (which is M26 size) looked very good in uniformity of growth and production compared to M.26 and MM.106.

A common concern among Nova Scotia Honeycrisp growers was making sure good tree growth was achieved before heavy cropping sets in. Beginning with pre-plant fumigation, and then using combinations of mulch, irrigation, heavy chemical thinning, and/or fertilization, Honeycrisp trees are being pushed hard here in New Scotland in their early years. In Nova Scotia cool night temperatures throughout the summer and fall almost guarantee good Honeycrisp color. High prices, which ranged last year from \$450-\$500 Canadian per 17 bushel bin will ensure that Honeycrisp will continue to be planted.

## **Curculio**

While some activity continues in the perimeter trap trees with odor bait, there is little or no feeding or egg laying activity outside of those trees. We think that the threat of curculio is pretty well over at this point in commercial orchards, though growers with chronic, lingering curculio populations should still check border trees for another week.

## **Apple Maggot**

It's time to set out the red sticky ball traps for apple maggot fly. Because soil temperatures have been fairly low until quite recently, there is a possibility that emergence may be somewhat delayed. However, Lorraine Los Connecticut Pest Message for June 13 reported that Dave Kollas had trapped an Apple Maggot fly that week. While Connecticut is normally warmer than most parts of Massachusetts, this uncertainty points out the need for monitoring AMF with traps to avoid unneeded sprays, or to be prepared to take action if they are required. At this time of year we can often go several weeks without an insecticide; monitoring apple maggot lets us know just how long this gap can be. Traps should be hung at head height, in an area of the tree with foliage and fruit to the sides and especially, below the trap; clear a space of a foot or so around the trap to enhance visibility. Odor bait may be used but is not necessary; the threshold with odor bait is 5-8 flies per trap, and without odor bait is 1-2 flies per trap. Also note that male flies (which are smaller than females and have a rounded abdomen rather than the more pointed one of the female), generally emerge earlier.

## *Leafhoppers*

Last week's storms brought potato leafhoppers into the area, and they are fairly well established by now. These insects are not generally a problem on mature trees, but they can significantly slow growth on young trees, so keep an eye on trees that are non-bearing and are not being routinely sprayed. Potato leafhopper feeding causes yellowing of the terminal foliage, and marginal browning ("hopperburn") if feeding is extensive. Most orchard insecticides provide good control of potato leafhoppers, even at reduced rates.

## *Leafminers*

Watch for the early sap-feeding mines of the summer generation, this week and next week. So far, we have not seen new mines in monitored orchards, but moths have been flying for a few weeks, so the mines should be visible soon. There is some parasitism of the spring generation - some leaves examined yesterday contained the white cocoon of *Pholetesor ornigis*, a wasp parasite, rather than the dark pupal case of the leafminer.

## *Mites*

The rainy weather seemingly has been very unfavorable for mite development, but do continue to monitor, especially for the next few weeks. After the end of June, trees are considerably more able to withstand mite injury, but right now they're still moderately susceptible.

## *Food Quality Protection Act (FQPA) Revised Cumulative Risk Assessment for Organophosphates*

Some interesting recent developments on the pesticide regulatory front are summarized in the two sections following. The first was sent to us courtesy of **Glenn Morin (New England Fruit Consultants Montague, MA 01351)** who attended the June 18 EPA technical briefing, while the second is from the **Environmental News Service**.

### *Revised Cumulative Risk Assessment for the Organophosphate Pesticides*

On June 18, 2002, the EPA held a technical briefing on the Revised Cumulative Risk Assessment for the organophosphate pesticides (OP) in Alexandria, VA. This assessment, mandated by the Food Quality Protection Act (FQPA) considers the combined effects on human health that could result from exposure to such pesticides through various routes including food, drinking water and residential use.

Preliminary results from the assessment, which reviews more than 1,000 pesticide food tolerances, indicate that the regulatory actions already taken by the EPA during the past six years have substantially reduced the risk posed by these pesticides and will meet the tough standards set forth in the FQPA.

EPA suggested that there will be no wholesale cancellation of the organophosphate compounds as a result of this assessment. There are a few questions surrounding specific product/commodity combinations that may require further mitigation but these should not affect the tree

water are not a major source of cumulative exposure and neither is residential use given the recent cancellation of chlorpyrifos and diazinon for those purposes.

However, the risk assessment has not been finalized. EPA will meet with its Scientific Advisory Panel (SAP) June 26 and 27 to request input on several science policies used to conduct the assessment such as the method of incorporating safety margins and the appropriate percentile for regulation. There is also a 30-day public comment period, currently in effect, to allow for stakeholder input. In addition, there are seven OP compounds for which the individual risk assessments have not been completed and therefore are not fully incorporated into the cumulative assessment. Although the final outcome of this assessment may be altered somewhat when the results of the final organophosphate risk assessments are included and all science policy questions have been settled, the conclusions should support a high level of confidence in the use of these compounds and in the safety of our food supply system.

For more information, visit [www.epa.gov/pesticides/cumulative](http://www.epa.gov/pesticides/cumulative).

### *Pesticide Review Finds Little Risk*

**WASHINGTON, DC**, June 13, 2002 (ENS) - The U.S. Environmental Protection Agency (EPA) says its comprehensive review of the cumulative risks of organophosphorus pesticides found that all but two of the 30 compounds studied are safe. The EPA released its revised assessment of organophosphate pesticides on Monday, nearing completion of its review of more than a thousand organophosphate pesticide food tolerances - also known as legal residue limits. The agency said almost all the pesticides are expected to meet the highest, most rigorous federal safety standards.

"Preliminary results from this scientific assessment provide good news for American consumers," said Stephen Johnson, EPA's assistant administrator for the Office of Prevention, Pesticides and Toxic Substances. "After years of effort to develop the scientific methodologies to conduct this sort of sophisticated risk assessment, the conclusions strongly support a high level of confidence in the safety of the food supply."

Results on two chemicals, however, could lead to new restrictions on their use, or even a complete ban. Dichlorvos, or DDVP, used in fly paper and other pest strips, and dimethoate, an agricultural pesticide sprayed on a variety of produce, both were linked to health problems including headaches, nausea, neurological disorders and even death.

"If it turns out that our concerns are valid, we will need to take action," said Johnson. "Banning them certainly is one of the options." The review of organophosphates was ordered as part of a legal settlement with the Natural Resources Defense Council (NRDC). Release of the results was delayed three times by legal action by the pesticide industry. The most recent appeal by the industry was denied on Monday, and the EPA released the report later the same day.

In the last several years, EPA has taken a variety of regulatory actions on the organophosphate pesticides, ranging from lowering application rates to complete

the Food Quality Protection Act (FQPA) of 1996.

The agency says these actions have reduced the risks of pesticide use. The EPA is still working to evaluate certain food and residential uses of individual organophosphates, including DDVP and dimethoate.

The NRDC said the EPA review still failed to account for all pesticide threats to children. The EPA said its review considered pesticide use and exposure in food, drinking water and residential spraying, and accounted for variability in potential exposures based on age, seasonal and geographic factors.

The current assessment "includes consideration of the FQPA safety factor for protecting sensitive populations, including infants and children," the EPA said.

Last week, the Mount Sinai School of Medicine's Center for Children's Health and the Environment began running a series of ads in the "New York Times" warning of the health effects that toxic chemicals, including pesticides, can have on children. The ads charge that exposure to pesticides can alter the reproductive systems of wildlife and humans, cause learning disabilities and increase the risk of certain cancers.

At a press briefing on Tuesday, Philip Landrigan, director of the Center for Children's Health and the Environment, said the United States has "not done a good job of testing [new] chemicals to determine if they cause toxic effects in children." "I don't think the public understands the broad, pervasive impact that chemicals have on children's health," Landrigan added.

More information on the EPA's pesticide review is available at : <http://www.epa.gov/pesticides/cumulative>.

More information on the NRDC's campaign against toxic pesticides is available at: <http://www.nrdc.org/health/pesticides/default.asp>.

# ***BEACH PLUM FIELD DAYS***

## **Presented by:**

*Cornell University*

*UMass Extension*

## **Sponsored by:**

A grant from the Northeast Region Sustainable  
Agriculture Research & Education Program  
(SARE)

\_Do you want to diversify by producing a new  
fruit crop?

\_Would a native fruit be a selling point for your  
business?

\_Are you looking for new ideas to pass along to  
growers?

Beach plum (*Prunus maritima*) is a fruiting shrub  
native to coastal dunes of the Northeastern United  
States. Since colonial times, people have collected  
wild fruit to make preserves and jelly. Interest in  
commercial production is growing. We've  
undertaken 15 small\_scale production trials in the  
Northeast to help increase yields and improve  
growing practices.

Our goals are to develop an integrated system for a  
sustainable beach plum industry. This includes  
fruit production, processing the crop into  
value\_added products, developing niche markets  
for these products, and educating growers,  
processors and marketers.

## **Field Day Agenda:**

product samples

field tour

fruit quality improvement

consumer focus group results

pest management

## **Locations:**

August 13, 2002 (10:00\_12:00 pm)

Coonamesett Farm, 227 Hatchville Rd., East  
Falmouth, Massachusetts

\_\_\_or\_\_\_

September 19, 2002 (details upon request)

Long Island Horticultural Research and Education  
Center, 3059 Sound Ave, Riverhead, New York

**Registration:**

To receive a registration packet please leave your name, address and phone number with:

Maureen Beardsley  
Department of Horticulture, Cornell University  
mb39@cornell.edu, 607\_255\_3090

**For more information on this project you may wish to visit:**

[www.beachplum.cornell.edu/](http://www.beachplum.cornell.edu/)

or contact the project manager:

Richard Uva  
607\_255\_2746  
rhu1@cornell.edu

beach plum website:

<http://www.beachplum.cornell.edu/>