UMassAmherst EXTENSION

Healthy Fruit

Volume 12, 2004

Prepared by the University of Massachusetts Fruit Team

Issue 13, June 15, 2004

Current DD accumulations

Location	Base 32 F	Base 43 F
Belchertown, SkyBit E-Weather (01/01/04 – 06/14/04)	--	1020

Orchard Radar for west-central Massachusetts (Belchertown)

http://pronewengland.org/content/AllModels/Mamodel/RadarMa-belchertown.htm

Orchard Radar for eastern Massachusetts (Waltham)

http://pronewengland.org/content/AllModels/Mamodel/RadarMa-waltham.htm

Upcoming meetings/events

Date	Meeting/Event	Location	Time	Information
June 15	Fruit Team Twilight Meeting	OESCO, Inc. (Orchard Equipment) Conway, MA	5:30 P.M.	Jon Clements (413) 478-7219
June 16	Fruit Team Twilight Meeting	Mann Orchard Methuen, MA	5:30 P.M.	Jon Clements (413) 478-7219
June 17	Fruit Team Twilight Meeting	Phantom Farms Cumberland, RI	5:30 P.M.	Heather Faubert (401) 874-2750
July 14	MFGA Summer Meeting	UMass Cold Spring Orchard Belchertown, MA	TBA	Jon Clements (413) 478-7219

Insects

After some activity last week, it's very likely the 2004 **plum curculio** season is over in all but the coolest locations. Border-row insecticide coverage through last week should have been sufficient to prevent injury.

Oblique-banded leafroller (OBLR) adults have been flying for a week or two now, and growers in warmer parts of the state who have had OBLR problems in the past may want to begin treating within a week or two. Several applications of Spintor, Entrust, or Bt products targeting larvae are recommended. OBLR seem to like Cortland in particular.

Anytime now you should begin scouting (twice weekly) for **potato leafhopper** (PLH) in young apple orchards. PLH arrives from the south with wind and storms, and can quickly cause the characteristic 'hopperburn.' In young plantings, this can cause severe stunting of shoot

growth. Control options – should you find PLH in your trees – include Actara, Avaunt, Provado, Assail, or Sevin. All are very effective.

The second generation of **pear psylla** will begin showing up soon. Later generations of this pest get more difficult to control, however, Actara, Agri-Mek, Esteem, Provado, or Assail are control options. Removing water-sprouts is recommended too, as lack of succulent foliage will go a long ways towards keeping psylla numbers down.

If you have not already treated the trunks of dwarf trees for **dogwood borer**, now is still a good time to do it. Lorsban 4E is labeled for trunk application only – be sure to drench the graft union, and exposed rootstock (with burrknots) in particular, as this is where the borers will be concentrated.

Diseases

Fabraea leaf spot of pear warrants continued control with the wet weather we have been having. Flint or Sovran are good fabraea controls, however, Benlate or Rubigan/EBDC tank mixes are effective too. Fungicide sprays should be applied ever 10-14 days if it stays wet.

Horticulture

The next week or two is your last chance to get some nitrogen fertilizer on apples and peaches that may still need it. Young trees in particular could benefit from a second or final shot of nitrogen. For non-bearing apples, the general recommendation is no more than 0.1 lb. actual nitrogen per year of tree age split over two applications. For young peaches, that amount can be increased to 0.15 lb. Be careful if using urea (46-0-0) to spread the fertilizer uniformly around the dripline of the tree. Calcium nitrate is more expensive than urea, but safer.

Bonus articles

Time to treat apples for dogwood borer

Win Cowgill – Rutgers Cooperative Extension County Agent
Dean Polk – Rutgers Cooperative Extension IPM Agent
Reprinted from Rutgers Cooperative Extension Plant & Pest Advisory, Fruit Edition, June 15, 2004

In recent years, the incidence of infestations by dogwood borer (DWB), *Synanthedon scitula*, has become a serious problem on many apple blocks containing dwarfing apple root stocks. Infestations of this clearwing moth in apples are almost always ***located in burrknots or graft unions*** that are planted above ground level. Burrknots are aggregations of root initials that can develop on the above-ground portion of the rootstock; all commercial dwarfing and semi-dwarfing rootstocks have a tendency to develop burrknots.

It is important that we plant dwarf apples with the graft union at least four inches out of the ground to avoid self-rooting of the scion. However, the trade off is the development of burrknots, which are susceptible to the dogwood borer. Mark rootstock is known for this.

The adult dogwood borer moth seeks out these spots to lay eggs, particularly if they are surrounded by vegetation or protected by something, such as mouse guards. Moreover, mouse guards may frequently house weeds, and shield the lower trunk from incidental exposure to insecticide cover sprays. Sustained feeding by dogwood borer at the graft union may severely weaken the tree at this juncture, or girdle the

trunk and cause a slow decline in tree health. Orchards in which mouse guards are emplaced should be examined for signs of damage.

All apple trees in NJ should be periodically checked for infestation. Apple growers in our NJ IPM have traps placed to monitor the adult moth. **We have caught moths (see picture, previous page) since May 21, the last three weeks have had increasing trap counts with the highest counts in Sussex county. Egg laying is peaking so growers should consider treatment now.** Since Lorsban remains on the tissue for quite some time, you will also control the larvae from any egg laying that occurs during the rest of June and early July, as well as any that has occurred to date. A second application may be more effective according from work done in NY State than one application.

The best control is a dilute trunk application with a handgun with an insecticide with good residual activity to provide control of established infestations. Lorsban 4E now has a supplemental label for apples and is the most effective material for control. We are somewhat earlier this year compared to 2003 in borer emergence. If one application is made it should be applied now and during the next 2 weeks. Two applications are labeled and may be more effective**.** If populations are high, then a second application can go on prior to August 15, keeping in mind the PHI and the variety being treated.

The following directions and restrictions are from the label:

Mix with water and apply directly to trunk from a distance of no more than 4 ft using low volume handgun or shielded spray equipment.

Do not allow spray to contact foliage or fruit. Up to 2 applications may be made with a minimum spray interval of 14 days between applications.

Restrictions:

_ Treat only the lower 4 feet of the apple tree trunk.
_ Do not make more than two applications per year for borer control.
_ Do not apply when wind speed is greater than 10 mph.
_ Do not apply within 28 days of harvest.
_ If the available residue data submitted in 2002 demonstrates the detection of chlorpyrifos at concentrations greater than 0.01 ppm, then Dow AgroSciences and EPA agree to discuss further mitigation

White latex paint brushed on the exposed portion of the rootstock will prevent new infestations of the borers, and also protect against southwest injury to the bark.

Other Sources of Information

Cornell has a great fact sheet on dogwood borers in fruit trees that can be found on their IPM web site at: http://www.nysipm.cornell.edu/factsheets/treefruit/pests/dwb/dgwdborer.html

---

Skin Cancer: the sun is not the farmer's friend

Exposure to ultraviolet radiation from the sun is the main cause of skin cancer. Skin damage from the sun is cumulative - the longer the skin is exposed to the sun, the greater the risk of skin cancers, regardless of your tan or skin pigment.

Rural workers have a high risk of getting skin cancers, as their work can expose them to long periods of ultraviolet radiation.

Spot the hazard

To help you spot skin cancer hazards, consider:

- Lack of shade in outdoor work areas.
- Reflective surfaces, eg water, cement, shiny metal or white painted buildings, cement surfaces.
- What jobs are done in sunlight, and how long they take.

- What are the peak sun hours.
- The day's ultraviolet exposure forecast.
- What body surfaces are exposed to sunlight.
- Whether sun blockout is provided or used.
- Whether protective clothing is available and worn.

Assess the risk

To assess the risk of skin cancer from identified hazards:

- Work out approximately how long is spent working outdoors each day.
- Identify what jobs are normally done in peak sun - between 10am and 4pm.
- Check whether shade is available for outdoor jobs.
- Check whether hats, protective clothing and sunscreens are adequate.
- Check whether SPF15+ sunscreen is applied to all exposed skin areas.
- Ensure sunscreen is re-applied during outdoor work.

Learn to identify various types of skin cancer, and check your skin for sunspots and unusual pigmentation:

- *Basal Cell Carcinoma* starts as a small lump that flattens out as it grows. One of the two most common growths, it can be easily treated and cured.
- *Squamous Cell Carcinoma* is the other most common growth; however it is more likely to spread to other parts of the body.
- *Malignant Melanoma* is the most dangerous type of skin cancer. Often starts as a dark mole. This type is responsible for over 1000 deaths in Australia each year.
- *Sunspot (Keratosis)*, a small, scaly patch of skin occurring on the arms, face, nose and ears. They are not strictly a form of cancer, but indicate excessive exposure to solar UV radiation.

Be aware of short term injury risks:

- reddened skin, blistering, swelling, and later, peeling of the skin.
- photosensitisation - acute skin reaction to UV with certain drugs, ointments, creams, and chemicals, resulting in increased sunburn and skin damage.
- photoconjunctivitis and photokeratitis - sore, red, gritty swollen eyes, with sensitivity to strong lights.

Long term effects include:

- Prematurely ageing - wrinkling, wasting skin tissues, excessive pigmentation, spots marked by clusters of tiny blood vessels.
- Cataracts of the eye.

Make the changes

- Wear cool, protective clothing, i.e. a shady hat, shirt with collar and long sleeves, and long trousers.
- Use a sunscreen with a high sun protection factor (SPF +15) before you go into the sun.
- Noses, lips, ears, bald heads, necks and backs of hands need extra protection.
- Reapply sunscreen regularly, especially if you are sweating.
- Make use of shade areas wherever possible in the high risk hours.
- Use a tractor with shade protection fitted.

- To safeguard against cataracts, sunglasses that conform to with applicable standards are recommended.

Early signs

Check your skin for early signs of skin cancer:

- any unusual skin conditions that don't heal in four weeks;
- any sore, ulcer or scaly patch on the skin;
- a white patch on the lips that doesn't heal;
- any mole that seems to grow quickly;
- any mole that changes shape or colour;
- any mole that bleeds or repeatedly itches.
- If you find any of these signs, see your doctor.

Remember

Over-exposure to the sun's rays increases the skin cancer risk both now and in the future.
Adapted from: http://www.saftek.net/worksafe/farm_09.htm

Potato leafhopper 'burn' of young tree shoots

Adult oblique-banded leafroller in pheromone trap
