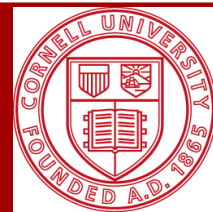




# FRUIT NOTES

## Lake Ontario Fruit Program



Volume 14 Issue 6

April 2, 2014

### Plan For Early Scale Management Peter Jentsch, Cornell's Hudson Valley Lab

The forecast for this week is for more average temperatures. Spring is coming. We may not be hard-pressed into decision-making considerations for pest management, but strategies for controlling early season insects, especially San Jose scale (SJS) should have been a part of your winter musings if pack-out fruit showed signs of SJS infestation. Be mindful that a tree carrying a few SJS-damaged fruit last season can become an eruption of fruit injury the following year if left unmanaged. To address an SJS issue, seasonal programs will require targeted applications of specific insecticides during three key periods of the season.

Pre-bloom is by far the most opportune time to manage SJS. The overwintering immature stages, protected beneath the waxy covering, are least protected from a spray application, as the developing foliage increases 'spray shadowing' as the season progresses. A most effective timing during this period is delayed dormant, from the time silver tip begins to 1/2" green. We are all familiar with the use of horticultural oil, Lorsban, Supracide or Esteem 35WP directed against overwintered "black caps" during this period, as these are longtime standard control measures.

In low to moderate population levels, horticultural oil alone in a 2% dormant application or a 1% green tip (GT) application, applied to infested trees with complete coverage, has been shown to control this pest (Table 1). In moderate to high populations, the oil should be applied in combination with other effective insecticides. Supracide 25WP can only be applied during pre-bloom (delayed dormant) of apple, as stated by the label. Lorsban can be applied once during the pre-bloom season, only as a foliar application through pink OR as a trunk application pre- or post-bloom up to 28 days before harvest. Consider alternating the use of Lorsban for scale and borer management every other year. Dogwood borer (DWB) in M.9 plantings of high-density slender spindle blocks can cause considerable damage to young establishing trees. From our observations, DWB is very prevalent throughout many of the Eastern NY orchards with young plantings.

Remember, the earlier the application against the overwintering black cap phase, the greater the likelihood of success. Coverage is critical in scale management, requiring a slow travel speed ( $\leq 2.5$  MPH), low wind speed ( $< 5$  MPH) and as close to a dilute application as possible. Increased foliage equates to "shadowing" and reduced coverage, which of course is the essential control component against the overwintering life stage. Softer insecticides, such as Esteem 35WP (pyriproxyfen) can be employed with or without oil, acting against the pest as an insect growth regulator (IGR), a unique mode of action for use against the immature scale. As the insect matures, the insecticide acts as a juvenile hormone analog to reduce the insect's capacity to molt. Centaur 0.7WDG (buprofezin), also an IGR, does require a penetrating non-ionic surfactant such as 0.25% v/v oil to be effective. Be aware that Movento (spirotetramat), a systemic insecticide, cannot be used pre-bloom as per label restrictions. Movento has been found to be most effective after PF in one to two applications, when there is



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Every effort has been made to provide correct, complete, and up-to-date pesticide recommendations. Nevertheless, changes in pesticide regulations occur constantly, and human errors are still possible. These recommendations are not a substitute for pesticide labeling. Please read the label before applying any pesticide.

sufficient foliage for effective uptake, and requires a penetrating non-ionic surfactant. Incompatibility concerns over captan use in early pest management programs for apple scab can be a formidable barrier when considering the use of oil. The possibility of phytotoxicity when using captan near oil applications should be strongly considered when searching for a weather window as an opportunity for SJS management. More data on Centaur and Movento for control of SJS will follow.

Table 1. Evaluation of insecticides for controlling San Jose scale on apple, Hudson Valley Lab, Highland, NY, 2005

Treatment	Quantity	Timing	% mortality per # of days post-application				
			7d	14d	21d	28d	45d
1. Damoil	3.0 gal./100	GT	100C	100C	100C	100C	100C
2. Damoil	2.0 gal./100	HIG	100C	100C	100C	100C	100C
3. Lorsban	1 pt/100	HIG	100C	100C	100C	100C	100C
4. Esteem	1.25 oz./100	HIG	48B	41B	38B	51B	59B
5. Assail	1.25 oz./100	HIG	52B	45B	78B	94C	100C
9. Untreated	---	---	3A	23A	38A	36A	35A

a) Data from "Empire" evaluation on 11 July for 1st generation SJS black cap population. 1/4" GT on 7 April, 1/2" GT (HIG) on 12 April, Pink on 26 April, Bloom on 8 May, PF on 19 May @ 80% PF of Empire. 310DD crawler emergence timing from adult biofix on 14 June, following 10d application on 24 June. 310DD crawler emergence timing for 2nd generation on 29 July.

b) Means separation by Fisher's Protected LSD ( $P < 0.05$ ). Treatment means followed by the same letter are not significantly different.]

## PRODUCT REGISTRATION UPDATE Art Agnello

Following is a brief (so far) list of changes to the insecticides available for use in NY tree fruit crops for the 2014 growing season; more are sure to follow:

**Guthion/Azinphos-methyl** - Just to be sure, a reminder that this product and a.i. is no longer registered for use in fruit crops.

**Thionex - All endosulfan** products are currently registered for use in apples, blueberries and strawberries and a few veg crops. The stop use date for apples and blueberries is July 31, 2015, and for strawberries, July 31, 2016.

A new pre-mix insecticide has been registered in NY by FMC; Gladiator, a mixture of avermectin B1 and zeta-cypermethrin, is registered against a wide range of insect pests as well as European red mite in pome fruit and stone fruit. For best effectiveness and insecticide resistance management, the use of pre-mix products should be reserved for situations when multiple pest species are present and

appropriately matched to the combination of active ingredients and modes of action contained in the product.

Please note that the 2014 Cornell Pest Management Guidelines for Commercial Tree Fruit Production are available only as a hard copy this year. A visit to their website (<http://ipmguidelines.org/treefruits/>) gives the following explanation: 'Due to budgetary constraints, the 2014 Cornell Pest Management Guidelines for Commercial Tree Fruit Production will not be available online. We are currently exploring options that will allow us to recover the costs of posting this publication online. We hope to have the Guidelines back online in 2015.' Distribution has been taken over by the Cornell Store, and can be purchased online at: <http://store.cornell.edu/c-875-guidelines.aspx> or through your local Cornell Cooperative Extension office.

## SNAP for Direct Marketing Farmers and Farmers Markets

### Learn more through free webinars

USDA has appropriated \$4 million to help direct marketing farmers and farmers markets join the SNAP program. They have contracted with the National Association of Farmers Market Nutrition Programs (NAFMNP) to administer the funds. NAFMNP created MarketLink, an online solution to an expedited application process, nationally negotiated rates for SNAP, debit and credit; as well as state-of-the-art equipment.

Joining the SNAP program involves a three step process. The first is to complete an eligibility assessment to determine whether the USDA funds can supply a free terminal (iPhone 5 with data plan, card reader and printer) or whether NYS funds can be used to assist you in using your own iPhone or iPad. The second step is the online USDA SNAP retailer application. The final step is to complete the application for a third party processor, WorldPay, to process transactions.

The Farmers Market Federation of NY will be holding webinars to help direct marketing farmers and market managers understand the MarketLink program and walk attendees through the application process. The presentations should take approximately 90 minutes for the presentation and question and answers.

The webinar is free to join and can save you time and stress from trying to go through the process on your own. Register now to reserve your space on the date that best fits your schedule.

To register, Click [here](#) for the registration information, then click on the link for your choice of dates and complete the registration information. Once submitted you will receive a link to the webinar. Save that link! This is how you will access the live webinar.

For more information, contact the Farmers Market Federation of NY at 315-637-4690 or email [deggert@nyfarmersmarket.com](mailto:deggert@nyfarmersmarket.com).

### SNAP for Direct Marketing Farmers and Farmers Markets

Tuesday	April 8	11:30am – 1:00pm
Wednesday	April 16	11:30am – 1:00pm
Thursday	April 24	11:30am – 1:00pm

## Pruning Raspberries

By Marvin Pritts, edited by Laura McDermott (ENYCH Berry News) and D.Breth

Just a few tips to get you started this season. Make sure to have a handle on how much winter damage the canes may have experienced before you begin pruning.

### Florican (summer fruiting) raspberries

- Productivity is related to the number of canes. Fruit size decreases as cane numbers increase.
  - 3-5 large canes per linear foot of row is the optimal range with a plant row width of 12-18 inches.
  - Canes should be pruned after winter injury threat.
  - Top canes to the point of the trellis, but below winter injury. Severe topping will increase fruit size but will greatly reduce yield.
  - No more than the top 1/4 of a cane should be removed.
  - After pruning, tie canes loosely to the trellis wire to prevent wind damage of laterals after bud break.
- Canes should be spaced evenly along the trellis wire, or equally divided and spread between sides of a V-trellis.
  - Primocane (fall bearing) raspberries:
  - Cut the canes as close to the ground as possible, at about one-inch, in mid to late winter so that buds will break from below ground level.
  - Collect the cut canes and burn or compost them to help control diseases.
  - Allow all the canes in a 12-18 inch wide band to grow. Leaving all the canes that come up in this area to grow will increase yields, but not decrease fruit size. In the age of Spotted winged drosophila, however, it may be a good cultural control to reduce the amount of canes that emerge so that you can improve spray penetration – so consider thinning the canes to maximize your ability to control SWD. Early thinning may push energy to remaining canes, but you will likely need to thin several times to eliminate cane emergence.

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**Contents:**

- Plan for Early Scale Management
- Production Registration Update
- SNAP for Direct Marketing  
Farmers and Farmers Markets
- Pruning Raspberries

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**Black Raspberries**

- Leave 4-6 canes per crown for acceptable yields of large fruit.
- Laterals are headed back in early spring to remove winter damaged wood and to maintain berry size. The choice of lateral length depends on cultivar vigor and the relationship between crop size and fruit size. Many of the laterals may suffer winter damage.
- Black raspberries respond well to primocane tipping. As the primocane approaches 32-36" in the summer, pinch at least 4" off the tip – ideally just above a bud. The tipped cane should be 28" tall. This process may need to be repeated several times throughout the growing season, but will result in many more fruiting lateral branches.
- Black raspberries could be pinched higher, but shorter laterals would result and the winter damage would be greater.
- Mechanical tipping may leave primocanes more susceptible to cane blight infection.
- The long laterals that exist at the end of the first year, should be supported by trellis wires before October since wet snow tends to break them off the main cane. Also, canes are more flexible in early autumn than in late autumn and are less prone to breaking from the crown during trellising.

**Purple Raspberries**

- Prune purple raspberries similarly to red raspberries. Leave 3-4 fruiting canes per linear foot of row.
- Shorten lateral branches below winter damage in early spring.
- Purple raspberries respond favorably to primocane suppression but do not respond well to mowing.
- Purple raspberry primocanes may be tipped, like black raspberries, but wounds can act as entry sites for disease.
- If purple raspberries are not tipped, the canes will grow very tall, and need support from a trellis. Primocanes can be suppressed to control vigor. Some natural branching will occur near the base of primocanes, these may be removed or allowed to fruit.
- If primocanes are tipped, do it when primocanes reach a height of 32 inches. At least 4 inches of tip must be removed. Many lateral buds will break near the top of the cane, and fewer near the base.