

NOURSE

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COMMERCIAL NEWSLETTER

Spring 2004

Comments From the Editor

Greetings from all of us at Nourse Farms

We're pleased to announce that Nathan Nourse has assumed nursery sales responsibilities. Nate has various responsibilities with Nourse Farms. Most recently he is in charge of the Plant Packing House and Shipping Departments. He is also responsible for harvest and sales of our wholesale fruit production consisting of strawberries, raspberries, blueberries, currants and gooseberries. With Nate's wide range of experience, he will be a good resource in our nursery sales department.

The focus of this spring's newsletter is on the many topics discussed at the various winter meetings. Between Nate and I, we attended seven meetings this winter season. We hope the information will be helpful.

We still have a good supply of plants available for spring planting. Although we are sold out of several varieties, we still have a good selection available.

I encourage you to place your orders as soon as possible so we can be responsive to your needs.

Wishing you the best for the 2004 season!

— Tim Nourse

Editors Note: Pesticide information that we discuss are general recommendations and not necessarily labeled for your State. Therefore, I urge to you use our discussions as a guideline and check your State Recommendations for actual use and labeling in your state.

Suggestions for designing a Strawberry Fungicide Program

We have seen the introduction of several new fungicides over the past few years (Elevate, Switch, Quadris, Cabrio, and Nova). For the coming season we have two new fungicides, Captevate from Arvesta (see enclosed fact sheet) as well as Pristine from BASF, a combination of BASF500 and Cabrio. In addition, Procure is now labeled for powdery mildew.

Winter meeting discussions emphasized the following:

- The various fungicides need to be used in rotation to avoid the development of resistance. Also, using similar classes of fungicides in successive applications should be avoided.

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Growing Darselect

for the Highest Yields

Our grower survey results indicate that Darselect has very large size, excellent appearance, good fruit firmness and firm skin. This highly rated performer will be well adapted for all uses, wholesale, retail or PYO.

Yield trial results from USDA, Beltsville and New York indicate Darselect has a high yield potential of over 22,000 lbs / acre. The key is to understand its characteristics and manage your Darselect plantings to realize high yields.

Darselect's unique characteristic is that each fruiting stem has only 10-14 flowers. As a result Darselect can form a large berry from each flower. Our traditional varieties have 20-30 flowers on each fruiting stem.

To harness this large size – high yield potential, it will be important to grow large daughter plants in your matted row production system.

Management of your first year planting:

1. Push your first year planting with nutrition and water in order to get your daughter plants produced early so they can develop into large plants.
2. If you're spacing your planting at 18" or more, try planting a portion of your planting at 14" to 16" and measure the yield difference. Closer spacing will

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Strawberry Fungicide Program (cont.)

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- The use of Captan (a broad spectrum fungicide) in combination with one of the new alternatives will also reduce the development of resistance.
- Do not make more than 2 sequential applications of Strobilurin fungicides (includes Quadris, *Cabrio, or *Pristine) or more than 4 applications per season.

* Notice to Apple Producers:

Several apple varieties are subject to damage from certain STROBILURIN fungicides, specifically QUADRIS and/or ABOUND. Please note that apple varieties are not susceptible to the newer STROBILURIN formulations CABRIO and/or PRISTINE. Any questions, contact your chemical distributor.

EARLY SPRING – PRE-BLOOM

Pre-bloom sprays should be planned if the weather has been wet or frost protection has created conditions favorable for fungus growth. (Botrytis or Leather Rot).

Field History infections of angular leaf spot (bacterial leaf spot) would support the applications of copper fungicides during early spring.

CAUTION: As green tissue develops manage copper applications closely to avoid burning the foliage.

Pre-Bloom recommendations:

Topsin-M plus Captan

BLOOM - starting at 10% through Full Bloom

Bloom sprays are the critical time to control botrytis and during warm wet periods growers must think about the potential for anthracnose infection. Because this is such a critical time many growers follow a 7-10 day fungicide program unless it is excessively dry. If the weather is very wet, this spray interval can be as short as 4 to 5 days.

Possible Recommendations:

Switch plus Captan

OR *Elevate plus Captan* or *Captevate* alone

OR *Pristine plus Captan*

OR *Topsin-M plus Captan*

**Editor's note:* We suggest that you price out the difference between using Captevate and mixing Captan plus Elevate yourself. Our calculations indicate that using Captevate is the most economical.

AFTER BLOOM – GREEN FRUIT THROUGH HARVEST

After flowering, the threat of botrytis infection decreases. Green fruit are not as susceptible to infection. If spray coverage was poor or lacking (too long an interval) in the bloom infection period, warm, wet conditions at harvest will cause botrytis rot in fruit. Warm, wet conditions increase the threat of anthracnose during harvest. Anthracnose can cause significant fruit loss and can be hard to control once it is identified. A preventative approach may be best in plantings where anthracnose is a concern or was present in prior harvests.

Quadris plus Captan

OR *Cabrio plus Captan*

OR *Pristine plus Captan*

If necessary to continue coverage beyond two sprays, alternate the applications of the above chemicals with an application of:

* *Switch*

OR *Captan*

OR *Thiram*

OR *Elevate*

**Note:* Switch is not labeled for Anthracnose but research results show it effective. Switch, is of course, very effective here for botrytis control in this season.

Foliage Disease or Post Harvest Considerations

Leaf spot, leaf scorch, powdery mildew or leaf blight (phomopsis) are all foliar diseases that can affect the vigor of the planting. Scout periodically and treat accordingly with fungicide if necessary. The following combinations will be effective for most foliar problems and will be a change from prior classes of fungicides:

* *Captan plus Nova*

* *Captan plus Procure*

**Note:* Captan has been a long time standard treatment for foliage diseases.

Leather Rot Control

This disease is a continuing problem with many growers. Leather Rot (*phytophthora cactorum*) shows the following symptoms: fruit with dull, lifeless appearance, bleached out color, and fruit tissue is tough and has a bitter taste. It is generally found when there are wet conditions and there is splashing of soil particles on the fruit. Managing drainage and good straw cover to prevent splashing can reduce infections. Ridomil or Aliette have been the dependable controls for this disease. Quadris, Cabrio and Pristine have excellent control of phytophthora diseases in other crops. Although not on the label, Quadris, Cabrio and Pristine should have good activity on Leather Rot.

* If you are using Quadris, Cabrio and/or Pristine in your program, it may be beneficial for control of Leather Rot as well.

Excellent Resources for your reference on fungicide use:

1. Mike Ellis, Ohio State University
Email: ellis.7@osu.edu
2. New England Vegetable and Berry Conference Proceedings 2003
P.O. Box 9300
Portland ME 04104
(207) 780-4205
Cost-\$16.00
3. Cornell Pest Management Guidelines for Berry Crops – 2004
Cornell Resource Center
P.O.Box 3884
Ithaca, NY 14852
Email: resctr@cornell.edu
607-255-2080
4. Nourse Farms website:
www.NourseFarms.com
Friends of Nourse
link to UMASS
link to New England Small Fruit Pest Management Guide
or link to
your State IPM/ Pest Management Guide
(OH, NY, WI, MI, PA, MN, etc.)



Prepare for Spring Delivery of Plants

As we prepare for our spring shipping season I recommend that we be mindful of the past years experiences. At winter meetings growers reviewed with us their experiences with the very wet spring. Shipments arrived at the scheduled time, however spring rains delayed planting for 2-3 weeks.

Factors that can be controlled

1. With wet conditions, or other hold-ups, we can delay your shipment to a later date. Contact us by the Wednesday of the week before your expected shipment and we will delay your shipment until conditions improve. Likewise, if planting weather is good you may advance your ship date by contacting us in the same manner. Let us do the storage here under ideal conditions. You will be happier and your plants will be too.
2. Test your farm cooler prior to plant arrival to assure that it is ready to store your plants at the best temperature, 28 degrees F. Organizing alternative cooling in case weather causes a long delay in planting will assure your plants are in the best planting condition.

3. Upon plant arrival, immediately open all boxes and check plants for temperature. If plants are warm, lift out the plastic liner holding the plants to allow quick cool down in your cooler. We suggest you monitor plants throughout the storage period to assure proper temperature.

Please contact us immediately if you have any questions or concerns. We are committed to on time delivery and success with your planting.

Growing Darselect (cont.)

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result in your bed filling in faster and result in larger daughter plants. Eliminate the later runner plants to avoid overpopulation.

Growers responding to our survey indicated Darselect had a good yield in their plantings. These suggestions could assist you to achieve the high potential of Darselect.

Please contact us if you have any questions. We look forward to hearing of results. We feel that this will become a top variety for strawberry producers.

How much Water is enough?

As we look back at the 2003 berry season and visit with our customers at the winter meetings many growers report this past season's crop as one of their best. The higher than average rainfall produced an excellent crop with great size. Although the continued rainy weather prevented the total crop from being harvested, the yield was there.

What can we learn from this experience?

- Take a closer look at your irrigation practices from post-bloom thru harvest. Depending on your soil type, plants respond to 2 inches or more per week.

- During harvest, berry crops respond to continuing high levels of irrigation to maintain berry size. Growers using drip irrigation on a daily basis are seeing the similar effect of evaporative cooling without wetting the foliage.
- Growers are also reporting that their plants going into the fall looked excellent. The extended wet summer has provided ample moisture to grow the crop. This shows that depending on soil type, 2 inches of moisture per week has a positive benefit.

Please contact us if you have any questions.

Cyclamen Mites

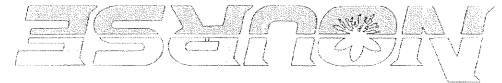
The presence of cyclamen mites has been reported to be an increasing problem in some areas during the past few years. The following is a review of the insect for grower reference. Cyclamen mites are a difficult problem and early detection is important for their control.

Cyclamen mites have traditionally been considered to be a nursery problem. Therefore the preventative spray program we use to control cyclamen mites has always been a necessary component of our nursery program. We use a Thiodan drench on our strawberry nursery planting, 4-6 weeks after planting. This application has given us good control.

- **Description:** Cyclamen Mites are soft-bodied and about 1/100" in size. They are very small and difficult to detect. They feed on the new unfolding leaves in the crown. Symptoms are the presence of damaged or distorted new leaves emerging from the crown. Examining the crown under magnification assists in finding them. For assistance contact your University specialist.
- **Control of Cyclamen Mites:** spray with Thiodan (endosulfan) or Kelthane (dicofol). These materials need to be applied in high gallonage, drenching sprays with a silicone spreader to get crown penetration.
- Entomologist Richard Cowles (CT. Agric. Exp. Station) suggests that natural predators are important in their control. Sustaining good populations of predators therefore is vital. Not using or limiting Pyrethroids insecticides and Sevin are key for maintaining good levels of predators (similar strategy for controlling all mite populations.)
- Dr. Cowles also suggests a connection between high usage of pyrethroids and root weevil outbreaks.

• Cyclamen Mites
 • Growing Darslect
 • Strawberry Fungicide
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Special Practices for Raspberry Production

The following practices seem to influence production on these varieties:

1. *Prelude Red Raspberry* – Prelude is recommended for summer (floricane) fruit production. However Prelude also produces a fall (primocane) crop of fruit. The wide range of yields that Prelude growers are experiencing surprises me.

Suggestion - Start a pruning practice that could result in increasing the yield. In the spring with hand pruners, prune off or cut just below where the cane flowered and produced fruit the previous fall. This pruning should encourage increased branching – 2-4 branches forming. More branching will result in more fruit set for the coming season.

**Please let us know
if this practice helps you.**

2. *Pruning Lauren for increased fruiting canes* – Some growers say that the Lauren variety consistently will not produce enough canes, resulting in

limited fruiting potential. Lauren has less cane production than most red raspberry varieties. As a result we recommend plant spacing of 20" - 24" in the row.

Cane production can be increased with Lauren by tipping or breaking off the growing tip of the canes once it achieves the desired length. I have observed that this "tipping" caused additional numbers of canes to grow.

Also, aggressive feeding of the Lauren variety is necessary for the plant to produce a large yield and to grow the necessary canes for a good crop the following year.

3. *Feeding the Polana variety* – We have discussed before the additional fertilizer needs of Polana red raspberry. Our experience is that Polana responds to additional fertilizer. Make your normal early spring application with a complete formula. After primocanes have reached 8" to 10" in height, apply another 30-50

pounds of actual Nitrogen per acre. This second application will increase the height of the canes as well as increase the yield.

**Please contact us
if you have any questions
on any of these practices.**

New Producer of Formula 40 (2,4-D)

The 2,4-D herbicide formulation labeled for strawberries is no longer called DOW Formula 40. The new producer, NUFARM, calls their product RIVERDALE FORMULA 40. Both Helena Chemical and UAP distributors are listing this herbicide.

Riverdale Formula 40 is used at strawberry renovation time as well as during the summer growing season for broadleaf weed control on strawberries.