PROFESSIONAL GROWERS NEWSLETTER Volume XIX – Spring 2008

Greetings from Nourse Farms

Spring planting season is here and we are ready to deliver. Please confirm your shipping dates, as many customers will be delayed due to heavy snow and wetter than normal conditions. Thanks to all our customers who have already ordered. We still have a good supply of our staple varieties; please don't wait another day to place an order if you are thinking about planting this season. If Tim or I aren't immediately available for consultation, please leave your order with one of our staff and we will call you back and help you address any needs or questions.

The popularity of blueberries has grown to unprecedented levels. If you are considering planting in '09, we would be happy to reserve those plants at anytime. The planning process also includes soil preparation. I highly recommend wood chips, along with sulfur application, to help amend high pH soils. Wood chips, are also valued for other uses and are becoming hard to find. As these wood products become harder to find or afford, commercial growers will have to find other carbon substitutes to amend their soil.

This past winter we saw very strong attendance at all the Grower meetings. People seem very interested in High Tunnels and other season extension methods. Biofumigation is a new topic to many growers and we will address it later in an article. Labor and Food safety are also getting a lot of attention and we will focus on them as well.

All of us at Nourse Farms wish our customers a profitable 2008.

Nate Nourse, Sales Director

NATIONAL ISSUES

NATE NOURSE

FOOD SAFETY

The buzz by local grown buyers, now known as 'Localvores', has never been greater. The demand for fresh will stay strong as long as it stays safe! If you have a food safety program in place now is the time to update and improve it. If you don't have one, contact your local extension office and get some ideas to implement one.

Media attention concerning contaminated food is at an all time high. By being proactive, growers will be considered 'Local Heroes' instead of something else. We are going to be testing our water supply in order to have some base line readings in case that is an issue. We are upgrading our hand wash facilities at our PYO booth and our wholesale berry truck. We are also going to add mobile restrooms for our wholesale pickers. This effort will show how concerned we are about the publics' safety.

I have heard that produce buyers are using food safety standards developed for leafy green vegetables for berries as well. Even though these standards have no scientific evidence they are necessary or effective for berries, they are the only current standards to reference. (Cont'd. on Pg. 3)

2008 Spring & Summer Meetings for Berry Growers

Please contact the following schools and organizations for information on upcoming farm tours, field days, twilight meetings, and other gatherings for berry growers. Some meeting dates are included here.

North American Strawberry Growers Assn.
3rd Week of August 2008
Central Ohio
www.nasga.org (613) 258-4587

University of New Hampshire
March 21, 2008
http://extension.unh.edu
(603) 862-3203

Ohio State University South Centers
April 24, June 19, August 14, 2008
ohioline.osu.edu/lines/farm.html
(740) 289-2071 x223

Rutgers University
April 23, 2008
http://www.rcre.rutgers.edu
(609) 625-0056

Wisconsin Berry Growers Association
Summer Field Day - May 22, 2008
At Wilfert Farms in Two Rivers
info@wiberries.org
(920) 478-3852

We are here to answer your questions

FEEL FREE TO CONTACT US VIA E-MAIL:

Tim Nourse
tnourse@noursefarms.com

Nate Nourse
nnourse@noursefarms.com

Vickie Barlow
vbarlow@noursefarms.com

New Research Results For Strawberries

TIM NOURSE

Dr. Barbara Smith, from the Popularville, Mississippi Research Station has found that the Ammoniated forms of nitrogen enhance the development of strawberry diseases. This is the first time that I have heard of this development. Although the removal of Ammoniated forms of nitrogen is not a cure for Anthracnose and Botrytis disease, Dr. Smith's research results indicate that the removal of the Ammoniated nitrogen is another management practice that will assist in the control of these diseases.

Dr. Smith conducted the work with Anthracnose at the Mississippi Research Station and her results were just recently published. She presented these results at the recent Strawberry Symposium held in Huelva, Spain. The work with the control of botrytis was conducted by one of Dr. Smith's colleagues in New Zealand.

It is clear that using sources of nitrogen other than the Ammoniated forms should assist growers. And where Calcium Nitrate has been such an excellent source of Nitrogen, this should not be a difficult transition for most growers.

As I receive more detail on this development, we will add that information to our Web Site in the Commercial Growers section. For questions or concerns, feel free to contact Nate or me.

Chemical Weed Control For New Raspberry Plantings

TIM NOURSE

There are several herbicides that can be used on new raspberry plantings to control grasses and broadleaf weeds. Well-managed herbicide applications can reduce hand labor during the establishment year.

Preparing your planting site 3 to 4 weeks before planting and burning off germinated weeds before you plant will reduce the weed pressure after planting. There is a choice of materials you can use to burn down new germinated weeds, creating a "stale seed bed."

Considerations for herbicide use:

- Choose the right chemicals to control the target weeds in your field.
- Your sprayer needs to be accurately calibrated. If you do not have a weed sprayer, it is possible to hire a custom applicator.
- For broad-spectrum control of weeds the combination of Surflan and Princep - Caliber 90 is recommended. The Surflan controls annual grasses and Princep controls broadleaf weeds.
- Use Surflan at 2 quarts per acre, plus Princep - Caliber 90 at 1 pint per acre.
- Avoid using Princep - Caliber 90 during the planting year if you are planting on light sandy soils.
- Watering in Surflan immediately after application will improve its control and activity. Growers' results have established this point.
- Devrinol WP can be substituted for Surflan. Use at the rate of 4 pounds per acre.
- Devrinol needs to be watered in immediately after application with overhead irrigation, or apply immediately before a rain.
- **Do Not Use** herbicides on Tissue Culture (TC) plants without consulting our planting guide, or calling Nourse Farms for the correct recommendation.

****WARNING**** **Use Princep herbicide immediately after planting.**
DO NOT apply after bud break (green starts to show) as it will cause damage to the plants.

Adding Micronutrients To Spring Fungicide Sprays

Many growers have acknowledged the benefits of the following recommendations. Add these micronutrients in moderation for the benefit of all varieties.

Special needs of the Cabot variety: Many growers like Cabot for its excellent size and good flavor, but under certain conditions the early fruit are rough and misshapen. Looking at the surface of the fruit, the seeds appear to be uneven or have varying levels of development. This is caused at pollination. Boron is an important element in the pollination process. Therefore, a spring application of Boron can reduce this initial fruit roughness.

Boron application rate: Using SOLUBOR, soluble Boron, apply 5 pounds per acre. As Solubor is 20% Boron, 5 pounds equals 1 pound of actual Boron per acre. Solubor may be incorporated with your fungicide sprays. We suggest you make application just before the fruit flowers open.

Special needs of the Darselect Variety: Apply 5 pounds of Epsom salts per acre in 2 or 3 cover sprays during the bloom period and green fruit development stage. This small amount of magnesium should improve the appearance of the fruit and foliage. For technical background information, Epsom salts is 10% actual Mg. 5 pounds of the material would give you .5 pounds of actual Mg per acre. Or 3 applications would result in a total amount of 1.5 pounds of actual Mg. for the season.

As a CAUTION, be concerned with the pounds of material that you are applying to each tank load of spray as you strategize the applications. In most situations, as growers are applying 100 gallons or more of spray per acre when they are applying fungicides, the 5 pounds of Epsom salts should not be significant.

NATIONAL ISSUES

(Cont'd. from Pg. 1)

The use of these standards will prevent many farms from selling to Chain Stores or similar outlets. If you are selling to these outlets, now would be a better time to find out what new procedures or policies they might be implementing.

The benefits of well-documented policies for food safety on the farm will provide valuable ammunition when reporters or health inspectors show up for an interview.

LABOR

Last spring growers were faced with several issues that are coming back to haunt us. Election year politics have brought another year without immigration or labor reform. The common sense approach has led grower groups to focus on labor reform as a way to address labor shortages without stirring the pot of issues regarding immigration.

Over the last several years, I have never met a grower who had enough help. If you are one of these growers, I would recommend you contact your representatives in Washington D.C. and encourage H-2A reform. Through the grass roots efforts of many in the produce industry, several common sense proposals have been made to our representatives. There is no finer example of these efforts than the new Farm Bill. The addition of specialty crop funding to the bill is going to stop the erosion of specialty-crop support. I truly believe this type of effort by growers will bring change to our labor issues.

WHAT IS BIOFUMIGATION?

NATE NOURSE

Biofumigation is a term that describes cultural practices that help control or limit soil pests. In basic terms, Biofumigation takes crop rotation to the next level by utilizing rotational cover crops that effectively reduce pest populations. Targeted pests include those soil organisms that chew on roots and leaves as well as the weeds that compete for water and nutrients.

Over the last decade growers have experienced declining production levels due to a build up of pests. The loss of certain chemicals like Nemacure and the high cost of fumigation, have contributed to the build up of these pests. Consequently, researchers and growers have begun to utilize cover crops that reduce certain pests.

For a long time growers have used winter rye as a cover crop. Research shows this crop produces chemicals that inhibit weed seed germination. Many growers now follow this crop with summer covers like Sorghum Sudan grass or Sudex. This crop not only adds a huge amount of biomass but it also aids weed and nematode reduction. Marigolds are a well-known cover crop that contains pyrethroids, a chemical that will greatly reduce nematodes and other soil insects. The latest research indicates all plants in the Brassica family also contribute to Nematode reduction. The most cost effective plant in this group seems to be Indian Mustard. Using these and other cover crops to reduce Nematode populations will also help reduce the incidence of Black Root Rot Complex.

Composting farm waste and adding it to the soil during the rotation period is commonly practiced. This adds beneficial humus as well as beneficial mycorrhizal fungi, which enhances root absorption and utilization of nitrogen. Another consideration would be the addition of beneficial nematodes. Beneficial nematodes strains will parasitize many soil insects, grubs and worms. This helps reduce the incidence of Japanese Beetles, Root Weevils, and Cut Worms. This could also be accomplished in one step by adding the beneficial mycorrhizal fungi and nematodes after planting.

Growers can further search the Internet or call your county extension for articles regarding these topics. Growers utilizing these options are certainly realizing a return on their investment.

Plant Availability Update

Every year around this time our stock of some popular varieties becomes depleted. The following snapshot gives an idea of where we are at time of publication with the availability of some of our most popular plants.

BLUEBERRIES
Very limited plant availability this year means we expect to sell out of all varieties very early this year. Please order soon if you are planting blueberries.

RASPBERRIES & BLACKBERRIES
We still have good supplies of many of our popular varieties. Heritage, Jewel Black, Mac Black, and Ouachita are sold out and several other varieties are limited. Please contact us soon if you are planting red, yellow or black raspberries or blackberries.

STRAWBERRIES
We still have excellent supplies of all major varieties. We still have trial quantities of Wendy. We are putting people on the waitlist for the following varieties: Brunswick, Cabot, Evie-2, Mesabi, and Seascape. Please contact us soon if you are planning to plant strawberries.

CURRANTS AND GOOSEBERRIES
We still have good supplies of most varieties.

ASPARAGUS
New for 2008 - We are pleased to offer Millennium this season, but supplies are limited to trial quantities. Growers who have been growing this variety are very impressed with its high yields and performance. We have a good supply of Jersey Knight and Jersey Supreme. Purple Passion will be limited.

New Varieties For Trials – Available In Limited Quantities

RASPBERRY
Polka red raspberry for trial. New from Poland, it is an early-fruiting primocane with high fruit quality for fresh market, freezing and processing. It follows a similar season to Polana.

STRAWBERRY
KRS 10 for trial. This is a late fruiting variety from Nova Scotia now being tested. Early results indicate KRS 10 will out-perform Ovation's productivity.

BLUEBERRY
Draper - (US Plant Patent #15103) A new, productive, early-midseason fresh market variety from a Duke cross, selected by Dr. Jim Hancock at Michigan State University. Fruit are attractive blue color, consistently large, firm with excellent low acid flavor. Fruit ripening is concentrated. The plant is vigorous, growing upright and is highly productive.

---

41 River Road
South Deerfield, MA 01373

Phone (413) 665-2658
Fax (413) 665-7888
info@noursefarms.com
www.noursefarms.com

Receive this newsletter two weeks earlier!!!
Send us your e-mail address

In This Issue:

- *Biofumigation*
- *National Issues*
- *Spring Fertilization*

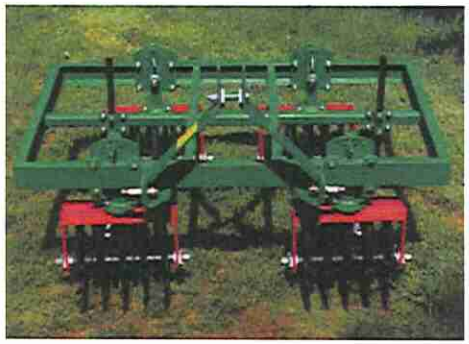
The Hillside Cultivator

There are several models of cultivators available from Hillside Cultivator Co. They are all built to be very durable and adjustable and finished with a long lasting heat cured epoxy powder coating. The toolbars are designed to be easily adjusted for versatility in cultivating many crops but are especially useful in **strawberries, raspberries, blueberries, potatoes and crops grown on plastic mulch.** All models of Hillside Cultivators have in common the soil engaged, weed removing tools pictured above and described below.

• Rolling cultivator gangs are the primary tillage tools. These gangs are composed of 3, 4, or 5 rolling spider wheels per gang and are very effective in cutting and uprooting weeds. Each rolling cultivator is mounted on a slotted plate which allows the angle at which the gang rolls through the soil to be adjusted. As the angle is increased the aggressiveness is increased. The slotted plate is mounted on a vertical pivoting arm which allows the rolling cultivator to be adjusted to follow the side of a ridged row. The rolling cultivators operate as a pair of oppositely cast spiders. The front pair is most often used to move soil away from the row while the rear pair moves the soil back toward the row. This feature is of particular usefulness in cultivating strawberries either for the purpose of cutting off excess runners or renovating strawberries after harvest.

• Disk gangs may be used to replace the rolling cultivators for applications where thick plant residue or straw is encountered. One example of this type of cultivation would be the renovation of strawberries after harvest. Disks also would be preferred where the soil is rockier.

• A cultivator tine is used between the front and rear cultivator gang. This may be either an s-tine or a coil shank. The coil shank is adjustable to different depths. This tine serves the purpose of digging deeper than the more shallow working rolling cultivators. It is to be adjusted to follow the track of the tractor, loosening the soil which has been compacted.



The Hillside Cultivator Model NH is a fully adjustable cultivator. The rolling cultivator gangs are mounted to the base of a clamp which is bolted to the cultivator tool bar. The clamps may be located anywhere on the tool bar. These clamps are designed to allow the rolling cultivator gangs to be adjusted both for the angle at which the cultivators move through the soil and for the pitch of the gang. The frames can be built to any size but are in stock at either 66" or 80" wide. Any number of cultivator gangs may be attached to the frame for either one or two rows. Coil tines are attached to the center bar of the frame in order to be attached between the front and rear rolling cultivator. The primary difference between this cultivator and the Model CS is that it does not have hydraulic adjustment features. This cultivator is recommend to be used where frequent adjustment of the rolling cultivators is not necessary and is the most economical model.

The Hillside Cultivator Hydraulic Width Adjustment

Model CS

U.S. Patent 6,935,435

The frame of the Model CS consists of two channels which form the track for two sliding sub frames. The cultivating tools are mounted on the sub-frames and the distance between the cultivators is hydraulically adjusted by the tractor operator. With this adjustment fine tuning of the cultivator to the size of the crop is done quickly when transitioning between fields. The distance between the rolling cultivators can be adjusted from 6" to 60".

With the sub-frames fully extended it is possible to mount a set of cultivating tools to the center of the frame to create a two row cultivator. (pictured below)

The hydraulic adjustment feature is particularly useful for cultivating close to the edges of plastic mulch. The rolling cultivators move the soil laterally which will cover small weeds along the side of the plastic mulched bed or cover loose edges of plastic with soil, but will not tear up the plastic if they come too close.

The Blueberry Cultivator has a telescoping frame with rolling cultivators mounted to the outer ends of the toolbar. The rolling cultivators are used to remove weeds and throw soil toward the plant row. Gauge wheels control depth of cultivation.

Hillside Cultivator Co. LLC
911 Disston View Drive
Lititz, PA 17543
717-626-6194
E-mail: *sales@shenkberryfarm.com*
Web address: *www.hillsidecultivator.com*