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(413) 665-2658
Monday–Friday
8am to 5pm (EST)

IMPORTANT! SHIP DATES

With increasingly variable and inconsistent spring weather, we highly recommend growers delay shipping or place spring orders with an "OPEN" ship date. Calling by Wednesday the week before you need the plants will allow us time to prepare your shipment and get it on its way to you. Your plants will not arrive before weather and soil conditions are suitable.

Greetings from Nourse Farms!

I am grateful to report that our 2014-2015 plant harvest was again one of our best ever seen. I want to recognize our staff for this tremendous effort. Because of their efforts, Nourse Farms will again offer the best berry plants. We saw a record fall harvest that will result in the most plants we have ever packed out in the winter. No matter what the spring will bring, your plants will be ready for timely delivery.

Last spring was challenging for many of our growers. Normal planting dates were extended by 2-4 weeks, I expect similar situations for 2015. Be confident that we will do whatever necessary to deliver plants on your schedule. We hold plants for customers under optimal conditions, allowing them to express their very best potential no matter how late they find the soil. I received many comments about plants showing signs of life and growing the next day after planting. Allowing plants to start in warmer conditions creates a momentum that will last through the year.

Our sales staff have been honing their skills. We have learned a lot this winter and are eager to share this new knowledge. Steve Poppe's article on low tunnels further exemplifies the power of this new production practice. An outline for pruning cane berries offers time saving tips that will increase production and winter hardiness. Whatever needs or questions you have for the coming season, we are ready to serve you to the best of our ability.

Nate Nourse



Nate (left), Mary and Tim Nourse

Raspberry Pruning Timeline

BY NATE NOURSE

At Nourse Farms, we have developed caneberry pruning techniques that will deliver a larger crop of berries with more winter hardy canes. With 5 years of experience, we have seen excellent results. We have shown that a timely effort will significantly reduce labor costs. The management of Spotted Wing Drosophila is enhanced with less foliage for them to hide in and increased spray coverage. Harvesting two crops per season on several different varieties adds to profitability, I call this 'Double Cropping Commercial Everbearers'. The primocane blackberry and black raspberry guide lines are still a work in progress, but it is a good starting point.



DOUBLE CROPPING COMMERCIAL EVERBEARERS

- GOAL** *Maintain a combination of 4-8 canes as primocanes and 4-6 floricanes per foot of row on a T-Trellis.*
- MAY** Depending on your zone and spring conditions primocane pruning should begin as canes reach 12"-18". Thin primocanes to the 8 best and biggest per foot of row.
- JULY** Begin removing spent floricanes and newly emerged primocanes. Make final thinning of primocanes and clip to trellis. Attaching 4-6 canes per foot of row on a T trellis
- NOVEMBER** Top canes to 4-5 feet tall. Remove any shorter primocanes.



SUMMER BEARING RASPBERRIES

- GOAL** *Maintaining 4-6 floricanes per foot of row on a T-Trellis.*
- MAY** Depending on your zone and spring conditions primocane pruning should begin as canes reach 12"-18".
- JULY** Begin removing spent floricanes and newly emerged primocanes. Make final thinning of primocanes and clip to trellis.
- NOVEMBER** Top canes to 4-5 feet tall. Remove any shorter primocanes.

SUMMER BEARING BLACK RASPBERRIES

- GOAL** *Maintaining 4-6 floricanes per foot of row on a T-Trellis. At Nourse Farms, plant spacing is 2' in row with 4 canes per plant on a T-Trellis*
- MAY** Depending on your zone and spring conditions primocane pruning should begin as canes reach 12"-18". Leave no more than 5-6 primocanes per plant.
- JULY** Begin removing spent floricanes and newly emerged primocanes. Top 6-7 foot tall Primocanes to 5-5.5 feet tall. Make final thinning of primocanes and clip to trellis. Allowing canes to reach 6-7 feet will help maximize the plant girth which will produce larger laterals. In zone 5, this should occur between July 15th and 30th.
- NOVEMBER** Cut lateral branches to 3 buds. Remove any shorter primocanes. Larger girth laterals are more winter hardy and produce bigger berries.

SUMMER BEARING BLACKBERRIES

GOAL *Maintaining 1-2 floricanes per foot of row on a high tensile fence. At Nourse Farms, plant spacing is 3' in row with 3 canes per plant on a Swing Arm Trellis.*

MAY Depending on your zone and spring conditions primocane training and thinning should begin as canes reach 12"-18". Leave no more than 3-4 primocanes per plant.

JUNE & JULY Prune primocanes to 5-6 feet tall after they reach 7-8 feet in height. The larger cane diameter will produce larger laterals and bigger berries.

JULY Begin removing spent floricanes and any newly emerged primocanes. Make final thinning of primocanes and clip to trellis. Allow laterals to grow until November

NOVEMBER Cut lateral branches to 3-4 buds in length. Remove any shorter primocanes.



Pre and Post Plant Fertilizer

Last spring, many growers planted later than their usual time. Unfortunately, the warmer soils reacted with more volatility to their 'normal' pre-plant fertilizer application. The resulting root and plant burn was mild to devastating. Strawberry growing experts agree that the strawberry plant only needs 10-20 pounds of actual nitrogen per acre to get started the first 6-8 weeks. Many conversations with growers indicated they had applied 3-4 times the recommended amount.

The topic of over fertilization starts a reaction that sets growers eyes into a rolling motion and whispering things like 'that's what we've always done.' At the same time, they wonder why their weeds are growing out of control. Over fertilization helps crack open a lot of weed seeds and get them off to a roaring start as well. This is a perfect example where a small change will deliver a better result.

Take a look at your soil test from a slightly different perspective. There is a very good chance little or no nitrogen is needed at planting. Applying a starter fertilizer like 5-10-10 at 200 pounds will probably be sufficient. Many would argue 'it's more expensive'. Compare the cost of the fertilizer to the cost of weeding the field twice. Having an abundant supply of nutrients that are available to the plant is the goal. Maintaining a proper soil pH will allow the nutrients to be available.

Unfortunately, the story doesn't end here. Growers will see strawberry plants doing well and want to push them along before flower removal. After applying 100-200 pounds of urea, the plants start to die. This is the equivalent to applying gasoline to a fire. Once flower removal has occurred the strawberry plant only needs another 10-20 pounds of actual nitrogen per acre to help establish runners. Over application only feeds the weeds.

The last fertilizer application in mid-August gives the plants all they need to develop flower buds and go into the winter strong. While many recommendations suggest up to 40 pounds of actual nitrogen per acre, I recommend only 20-30 pounds. Applying potassium and phosphorous to be in abundance is also suggested. **BY NATE NOURSE**



PRIMOCANE BLACKBERRIES AND BLACK RASPBERRIES

GOAL *Maintaining 4-6 primocanes per plant on a T trellis or high tensile fence.*

MAY & JUNE Tip primocanes to 12"-15" as cane reach 20"-24" in height. Tipping canes short produces longer laterals. Tipping canes long produces shorter laterals.

JUNE & JULY Tip laterals to 3-4 buds as they reach 5-7 buds(30"). Tipping must be done prior to terminal flower initiation. Tipping laterals with flowers will produce infertile laterals without fruit. Timing is critical to maximize fruit production.

NOVEMBER Thin plants to 3-4 main canes per plant. This will add winter hardiness. These have a potential for early summer production.

Day-neutral Strawberry Season Extension Using Low-tunnel Production Systems



Availability of locally grown strawberries is extremely limited in the Upper Midwest, primarily due to the short growing season. Fruit is an important part of a healthy diet, and while there is an expressed interest in having greater access to locally grown strawberries, lack of suitable varieties and production systems has prohibited growers from being able to fulfill this need in our region.

For the last two years, our main objective was to conduct day-neutral strawberry trials using a low tunnel organic production system. To make fresh, locally grown strawberries available for an extended season, we established six day-neutral strawberry cultivars in raised beds using plasticulture with and without tunnels. We harvested day-neutral strawberry fruit from mid-July through mid-October in 2013 and 2014 at the West Central Research and Outreach Center (WCROC) Morris site, the University of Minnesota St. Paul campus site, and two farmer-cooperator sites.

A second objective was to use our research and innovative growing techniques to contribute to an increase in the number of strawberry growers in the Upper Midwest. If successful, this new method of growing long-season strawberries may help increase the number of strawberry growers in the Upper Midwest, increase yields and therefore availability of locally grown strawberries from June through October.

Traditional June-bearing strawberry varieties in Minnesota have a baseline yield of 5,500 pounds/A. Preliminary data from USDA low tunnel trials calculated yield for day-neutral varieties varying between 8,600 pounds/A to 19,000 pound/A (Lewers, 2012). Average 2013-2014 yield under low tunnels was 17,120 pounds/A at the St. Paul site and 21,784 pounds/A at the WCROC site; both within the USDA benchmark and also exceeding June-bearing strawberry variety yields in Minnesota.

In order to determine individual size of fruit (g) of each cultivar, we randomly chose 20 berries per treatment

at each harvest in 2013 and 2014. At WCROC, the average berry weight (g) across six cultivars for both years under the low tunnel was 16.45g, while the non-low tunnel averaged 15.22g. At St. Paul, the average berry weight (g) across six cultivars for both years under the low tunnel was 12.98g, while the non-low tunnel averaged 12.42g. By comparison, 2010-2011 data from the WCROC June-bearing variety trial shows the average berry weight was 11.45g per individual fruit. After two years of research, the six day-neutral cultivars are proving to have larger individual fruit size when compared to June-bearing strawberry trials in Minnesota.

During the 2013 late summer/fall picking season at the WCROC site, we tasted a noticeably sweet strawberry. We randomly took brix/sugar levels during the picking season of all six cultivars in the low tunnel and non-low tunnel treatments. The results showed an average brix level of 7.6 between late July and early October in both low and non-low tunnel treatments. To compare these brix levels, we also randomly took readings in our 2013 WCROC June bearing variety trial between late June and early July; the results showed an average brix level of 7.7. This comparison shows that day-neutral cultivars are just as sweet as June-bearing cultivars commonly grown in Minnesota.

For step-by-step instructions on constructing a low tunnel system for strawberry use, or for more information on the project, please visit our low tunnel strawberry blog at the UMN Commercial Fruit website, <http://fruit.cfans.umn.edu/category/strawberries/low-tunnel-strawberry/>. The day-neutral low tunnel strawberry project will continue into 2016. Steve Poppe can be contacted at poppes@morris.umn.edu.

Written by Steve Poppe and Esther Jordan, University of Minnesota West Central Research and Outreach Center (WCROC), Morris, MN, Emily Hoover, Emily Tepe, Andy Petran and Jack Tillman, U of M, Dept. of Horticultural Science, St. Paul.

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SPRING/SUMMER 2015

Tours, Seminars & Field Days

MAY

May 21, 2015

21st Wisconsin Berry Growers Field Day, Helenville, Wisconsin

This year's field day will be held at Jelli's Market in Helenville. Topics discussed will include varieties, pruning of blueberries, weed management of strawberries, PH amendments and fertilization. Email: info@wiberries.org
www.wiberries.org

Late May (date tbd)

University of Maryland Strawberry Twilight Meeting
Contact Mike Newell at mnewell@umd.edu in early May for meeting update

JUNE

June 24, 2015

Ohio Produce Growers & Marketers Association Summer Tour & Field Day

Details to come soon at www.opgma.org

June 21-24, 2015

11th International Rubus and Ribes Symposium, Asheville, NC

Details to come soon at www.rubusribes2015.com

JULY

July 17 & 18, 2015

Oregon Berry Festival Portland, Portland, Oregon

www.oregonberryfestival.com

AUGUST

August 19 & 20, 2015

NASGA Summer Tour

Details to come soon at www.nasga.org

SOLD-OUT

Ben Sarek *black currant*

Malwina *strawberry*

MacDonald *rhubarb*

Rovada *currant*

Rubicon *strawberry*

San Andreas *strawberry*

Nova *raspberry*

LIMITED SUPPLY

We still have some of these available. Limited supply. Order now!

All purple asparagus

Jonkheer van Tets *currant*

Autumn Britten *raspberry*

Anne *raspberry*

Lauren *raspberry*

Mayflower *strawberry*

Deluxe *strawberry*

Verity *strawberry*

Limited to 25/per customer

(may be sold out by printing):

Squamish *red raspberries* **Lewis**

Cawood Delight *asparagus*

Caroline *raspberry*

Tula Magic® *raspberry*

Taylor *raspberry*

Nantahala *raspberry*

Brunswick *strawberry*

Dream *strawberry*



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PLANNING A 2015 CONTROL PROGRAM FOR SPOTTED WING DROSOPHILA (SWD)

In the last two newsletters, we have brought focus to the control of Spotted Wing Drosophila and all the winter meetings had updated information for the control of this new insect. You can review our Fall Newsletter for information regarding SWD in 2013 and what has been learned. As you are organizing your control program, there are many resources online and available from your state university. If you have any questions, feel free to contact us.

SWD BASICS

1

Monitor with traps to know when present.

2

Timing of insecticide sprays begins with first color.

3

Cultural controls include removal of cull fruit from field and harvesting all ripe fruit EVERY TIME!

4

Use and rotate labeled insecticides on a 5-7 day schedule.



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SPRING 2015 NEWSLETTER

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SHIPPING INFORMATION AND RECEIVING TIPS

- Our system automatically e-mails you reminders and details on your FedEx shipments. Please make sure we have a current e-mail address on file for you.
- LTL shipments must be requested before noon on the departure day.
- If at all possible, please notify us by the Wednesday of the week before your scheduled ship date to change an order or FedEx ship date. We pack orders the week prior to shipment during our busy season.
- Some customers store plants in their own cooler before planting. While this can work, we recommend leaving your plants with us until conditions are right for you to plant within a few days of receipt. We have state-of-the-art cooler facilities that maintain constant temperature and humidity levels. Also, plants will warm-up during shipment and start to lose vigor.
- If you must cool plants, open the boxes to allow warm air to escape, reseal and keep them as close to 28°F as possible. Do not allow them to fall below 26°F as that will kill your plants.
- Do not add water or soak plants if you can't plant right away. Open boxes upon receipt to check temperature and freshness and reseal. If mold forms on asparagus roots they should be spread out on a pallet and kept dry to stop more mold from growing.
- Leaving your ship date "open" allows you to watch the weather and let us know when you would like us to ship. There is no default shipping date on "open" orders, therefore you need to let us know when you are ready.
- If plants arrive in poor condition, please contact us immediately!

VARIETY UPDATE

Malwina is proving to be very popular. I am suggesting growers consider placing their order for 2016 before the first of the year. We are taking orders now for 2016.

Prelude, Himbo Top and **Joan J** are excellent choices for Commercial Everbearers, producing 2 marketable crops per season. Our plantings of Himbo Top and Joan J have shown excellent winter hardiness, similar to Nova when topped in the fall.

TRIAL VARIETIES

Amadine is an excellent alternative to Seascape, with similar yield potentials. Its flavor will impress.

Rutgers Scarlet has very high yield potentials and easy to grow. Larger trial quantities are still available.

**We are here to answer your questions
Feel free to contact us via e-mail:**

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