



Greetings from Whately-

Welcome to our Spring 2021 Newsletter.

We've included timely topics to assist you in the coming season. With tremendous berry crop interest this year, we are currently sold out of more items than in previous years. Be sure to check the list on the back cover.

2021 Opportunities

Due to the ongoing impact of COVID-19, it is essential to adjust to your customers' needs. It requires flexibility but provides opportunity for sales growth. Keep an open mind and listen to your customers!

2021 Expanded Plug Plant Production

Last fall, we announced our increased strawberry plug plant production for the 2021 season. We are focused on top-quality plugs and look forward to your response. Read more inside!

Upcoming Shipping Season

We are preparing to ship your plants. On-time delivery is important, so keep us informed of your planting situation. Together, we will be successful.

Thank you for your continued business and wishing you the best for the 2021 season.

Pun nouse

This newsletter was produced by the collaborative effort of the Nourse Farms Sales and Customer Service Team.



Organizing Pick-Your-Own

As we continue to experience an increased interest in pick-your-own, we have pulled together the following considerations to help guide you and set you up for success:

VARIETIES

How many weeks do you want to offer pick-your-own? A number of factors can come into play as you make this decision, including resources, staffing, and public interest. Consider which varieties will help you cover a short or long season's harvest, depending on what you decide is best for your farm.

What type of fruit do you want to offer? Strawberries, raspberries, blackberries, and blueberries are all popular options for a pick-your-own operation. Select varieties that are adapted for your region with the assistance of our Customer Service Team by calling us at 413-665-2658 or emailing us at info@noursefarms.com.

SITE SELECTION

Select the best well-drained site for your planting, considering your source for irrigation.

Also consider parking locations. Parking close to the field is most efficient to manage. Wagon rides to and from the field add management considerations.

FACILITIES

You will need a checkout stand that can accommodate holding your containers and cash register. Make sure that portable toilets, handwashing stations, and trash receptacles are available for customers.

ADVERTISING

Social media, newspapers, radio, local directories, and mailing lists all offer efficient ways to reach potential customers. Get creative—you can even incorporate coupons into your ads. Local signage is always helpful, too!

PRICING

Do you want to sell by the pound or by the container? Don't forget: selling by the pound requires a scale.

When setting your price, remember that you're providing fresh, quality berries and a great experience. Survey the competition in your area and determine a pricing range.

Variety Spotlight

An Early Primocane Variety with High Yield: Meet Mapema®



Mapema® is a recent release from Advanced Berry Breeding (ABB) in the Netherlands. It's the earliest variety from ABB, ripening about the same time as Polka.

Growers have experienced Mapema® to be **vigorous**. The berries were **firm** and held good size through the season. Comments were also made about its **good flavor**.

As we are currently sold out of many raspberry varieties, Mapema® is an excellent substitute when a primocane variety is needed.

Ripening early, it will fruit for a long season into October. Many growers in Zones 5–7 will be able to overwinter the canes to produce a floricane crop in addition.

We are highly recommending this Mapema® variety.

*Minimum order of 200 plants is required.

For detailed information about Mapema®, visit:

NourseFarms.com/netherlands-advanced-berry-breeding-varieties

Contact us with any questions you may have at 413-665-2658 or info@noursefarms.com.

Brookdale Farm Supplies



Toro's Blueline PC is a heavy wall drip tubing with pressure compensating integrated drippers that lasts 25 plus years. Designed for perennial crops such as blueberries, blackberries, and raspberries; Blueline PC has an emitter built inside the tube which is placed every 12", 18", 24" or 36". The flow path technology in the PC dripper uses a shark tooth design providing a turbulent flow path that is independent from the wall of the tubing. That flow path, along with the self-flushing diaphragm allows for a dripper system that is very resistant to clogging. This produces a uniformly watered field for a long duration of time.

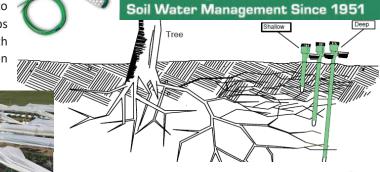




Soil Moisture Sensors

When should you turn your irrigation on? Most importantly, when should you turn it off? By using soil moisture sensors, you are able to dial in your irrigation and know exactly what the plant has available for water. By keeping the soil moisture in the optimal range, you reduce plant stress, increasing the quality and yield of your fruit. Watermark Sensors are designed to be in the field for the season, and read as often as needed. They are not affected by freezing and are easy to use. They have a 0-200 centibar range and are internally compensated. One hand held reader can read any number of sensors. Sensors can also be read via a channel data logger or a wireless mesh network.

Two sensors per location are used. One at a shallow depth and one at a deeper depth. This allows you to determine how long you need to irrigate for. A chart with the depths based on crops are available. A chart is also available with information on the ideal irrigation range based on soil type and crop.





Weed Mat is a non-woven spun bound material design to block weeds but allows water and air through. It is UV treated and designed to last a few years. The weed mat is ideal for blueberry, raspberry, and black berry establishment. Growers are also using it for between rows of plastic for strawberries and under their header hoses to prevent weed growth throughout the season.

Brookdale & Farm Supplies

38 Broad Street Hollis, NH 03049 603-465-2240

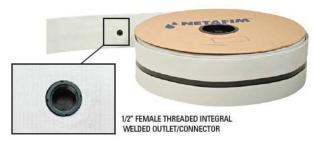
www.brookdalefruitfarm.com

Soil Moisture Sensor IRRIGATION INITIATION AREA **IRROMETER**

Strawberry soil moisture management is critical for plant establishment and fruit size. Drought stress of strawberry plants result in smaller leaf area on plants and small early ripening fruit. A general rule of thumb is to not let soil moisture fall below 50% of field capacity. Soil moisture measurements for strawberries should be taken at 6" and 12" depth to determine available moisture to the root zone of the plant. Either Tensiometers or electric conductance sensors can measure soil moisture. Strawberries require as much as 18 inches of water over a 200 day growing period. That is the equivalent of 20 gallons of water per plant. Overhead frost protection can also apply excess water and flush nutrients from the root zone. Drip irrigation is the preferred irrigation method for strawberries applying moisture directly to the root zone. Utilizing soil moisture measurements daily ensures a consistent and successful approach to grow strawberries. Contact Brookdale Farm Supplies for appropriate soil moisture measuring equipment for field application.

FLEXNETTM

Flexnet is a flexible distribution manifold system with ½" female threaded connections at various spacings, most commonly 36" or 72". Flexnet comes in a range of sizes from 2" to 8" and weighs about 30% of comparable layflat pipe. Flexnet can be used for meganet sprinklers and as a distribution manifold for drip. This feature makes Flexnet a multipurpose manifold system for strawberry production. Meganet sprinklers connect with tubes thread into this hose for a leak free fast assembly. Fittings for Flexnet include Drip elbows and tees, a heavy wall barb fitting, plugs for the holes not being used, air vents for end of the line, and flexible sprinkler stands.







FIVE POINTS TO PREPARE

Get Ready for the Season!

ORGANIC GROWING RESOURCES

We are often asked by organic growing customers about rates of organic fertilizer

to apply and pesticides usage. As conventional growers, we do not have the experience necessary to properly advise on organic practices. We do, however, refer anyone interested in learning more about organic growing to the following resources:

NOFA-Northeast Organic Farming Association: www.nofa.org

Midwest Organic & Sustainable Education Service: www.mosesorganic.org

SARE-Sustainable Agriculture Research and Education: www.sare.org/resources/organic-production

USDA-Guide for Organic Crop Producers: www.ams.usda.gov/sites/default/files/media/ GuideForOrganicCropProducers.pdf

TIMELY TIPPING OF PRIMOCANE BLACKBERRIES

Grower experiences indicate that well-timed tipping of primocane blackberry growth at 15 inches and again at 30 inches of height not only significantly increases production but also accelerates ripening for earlier harvest.

While this practice does take a lot of labor, the pay off is a substantial increase in production. The fruit will be at chest height, making it more efficient to harvest.

Growers who have previously tipped only once at 15 inches experienced

a good increase in yield when they also tipped at 30 inches. Tipping at both heights will produce a high yield and the labor cost of performing the practice will pay off in dividends.

This practice is important for both primocane blackberry varieties Prime-Ark® 45 and Prime-Ark® Freedom.

Grower Tip: Using the same employees each time to do the tipping eliminates training new employees each time and increases process efficiency for those that do the tipping.

CHOOSING A PLANTING DATE FOR PLASTICULTURE STRAWBERRIES, USING PLUG OR BARE ROOT PLANTS

The decision when to plant plasticulture strawberries using bare rooted plants is influenced by the grower's location and the length of their growing season. The goal is to have three to four branch crowns by the end of the growing season to produce next year's crop. Producing more branch crowns reduces berry

size and harvest efficiency. It will also influence the following year's crop potential as well as the productive lifespan of the planting.

Many growers plant too early to get the full benefit from their plasticulture production. Here at Nourse Farms, we plant at the end of June or the first few days of July. Generally, our Pennsylvania growers plant around midJuly. Growers in more northern locations might consider planting mid- to late June.

Commonly, plug plants are planted about 30 days later than bare roots because the plugs are actively ready to start growing/rooting once they are planted. Bare root plants need to come out of dormancy, establish a root system, begin to grow, and flower before going vegetative, which takes about 30 days. More northern growers need to plant plugs in early to mid-August. Moving south, the planting period should be between mid- to late August and early September.

ESTABLISHING BRAMBLE PLANTS USING DIFFERENT WEED CONTROL METHODS

Using mulches during the first year for the establishment of bramble plants can help manage weeds, reduce or eliminate herbicides, maintain soil moisture for the new plants, and maximize the growth of the new planting. The more growth that results will increase yields on primocane varieties the planting year and the

following year on floricane varieties, as well as increasing the cane emergence.

Mulching greatly reduces competition from weeds and reduces the labor costs of hand weeding. Mulches reduce water evaporation, making it easier to manage your applications. Installing your drip lines under the mulch provides good moisture control and spoon feeding of nutrients to the plants in the establishment process.

If plastic mulches are used, they need to be removed after the first growing season to reduce the threat from Phytophthora, because soils remain too wet for extended periods of time. This is less of a problem when using straw as mulch.

Dr. Marvin Pritts recently compared various mulches and found straw mulch dramatically increased the number of canes and their growth over other types of mulch.

We have had some experience using straw and would recommend that the straw be chopped to form a tight layer over the top of the soil and be less affected by wind removing it.

The use of mulch is a positive step to ensure the investment of the planting results in maximum cane development for the coming crop and to reduce the labor of hand weeding.

PREPARE YOUR SOIL FOR YOUR NEXT PLANTING OF BLUEBERRIES

Choose your site to plant blueberries and prepare it over a growing season. Soil pH is the most important consideration. Blueberries want a pH of 4.5 to 4.8 to perform at the highest level.

The first step is to take a comprehensive soil test of your chosen site. In our Planting and Success Guide, there is a chart that will tell you the amount of 90% sulfur that needs to be applied per 100 sq. ft. Note the rate changes if your soil is sandy, silty, or clay.

To make the application:

- 1. Make a broadcast of the whole block.
- Apply the sulfur in strips by marking out your rows in advance and apply 4-foot bands of sulfur. This practice will reduce the amount you apply to about a third. Incorporate the sulfur as thoroughly as you can for uniform results.

It is advantageous to the grower to start preparing for blueberry planting early. Doing your sulfur application in the spring will result in your pH being adjusted by the following spring to give the plants the best situation to grow well. Use of cover crops during the preparation year will reduce weed issues the following year and will add organic matter to the soil for good soil tilth.

Contact us at 413-665-2658 or via email at info@NourseFarms.com if you have questions about any of these topics.

We have Powell gears available in a variety of sizes. Please call for recommendations on appropriate gears and pricing.



Strawberry Plug Plants Now Available

To respond to our customers' increasing need and desire for strawberry plug plants, our team formulated a system in 2020 to make strawberry plug plants available. With positive feedback from customers and continuing demand, we have increased our production for strawberry plug plants in 2021.

The Nourse Farms Strawberry Plug Plant System

In the production system we use, the plugs are grown with best practices to produce the most disease-free plugs. Our strawberry mother plants are greenhouse-grown in a substrate system for effective disease management. The tips from these plants are then planted into 50-cell plug plant containers and, with a misting irrigation system in place, grown into finished plug plants.

Why Use Strawberry Plug Plants

An option for plasticulture growers, strawberry plug plants:

- are planted in the late summer to be fruited the following spring; and
- can be planted into plastic using a mechanical transplanter rather than by hand.

What Nourse Farms has Available for 2021

For the 2021 planting season, Nourse Farms is offering four varieties to our customers:

- Galletta, an early-season variety that has excellent flavor, holds size through the season, and has good disease resistance. Galletta also performs well in heavier soils.
- Darselect, a mid-season, highly productive variety exclusive to Nourse Farms with large and sweet berries.
- Flavorfest, a highly demanded mid-season variety with first-rate vigor and flavor.
 Flavorfest also shows tolerance to anthracnose crown and fruit rot.
- AC Valley Sunset, a top-choice late-season variety exclusive to Nourse Farms and known for large, very good flavored berries.

Strawberry plug plants can be purchased in cases of 250 and will ship mid-August through mid-September. Prices start at \$0.46/plant (\$115/case) + royalty for certain varieties. Discounts available on orders of over 8,000 plants. Contact us for more details.

Place your order by contacting us at 413-665-2658 or via email at info@NourseFarms.com.



Strawberry Tray Plants & Long Cane Bramble Plants at Nourse Farms

We've been producing these new forms of plants for four years and learning the process of producing the quality required for both. We are delighted to report that we are expanding our production this coming season.

Both of these new forms of berry plants are grown to be fruited in a soilless (substrate) system. They are planted into 100% COIR or a COIR/PEAT mix to achieve the best results for rooting and maintaining the root systems for the production cycle. An important component is the computer system that monitors the number of waterings each day and the PPM or Electrical Conductivity (EC) of the fertilizer that is injected into each watering. Computer injection systems have been developed to accomplish these requirements for both large and small productions.

One dependable way to experience the use of strawberry tray plants is to set up a field with tabletops and crop covers over the rows. The grow bags are placed on the table tops and the tray plants are planted into the bags. Then, 55 to 60 days later, fruit production begins.

The tabletops could also be installed in tunnels with day neutral varieties to maximize production. Once this system is set up with the initial investment, you have a permanent area to produce strawberries.

An important note: We have planted the strawberry tray plants into soil and have experienced that it does not work. The plant is not able to access nutrients in the soil as opposed to a hydroponic system.

The opportunity with long canes is the same. Many growers are now planting raspberries in the soil in high tunnels. To get away from growing in soil, the long canes are potted up into a 7-liter pot, from the 1.8-liter pot that we grow them in, to produce the crop of fruit.

We will continue to share our experience and knowledge with you as we learn more.

Hillside Cultivator for Strawberry Weed Control throughout the Year

Weed control is probably the most difficult obstacle to successful strawberry production. In a matted row system a combination of effective mechanical tools will greatly reduce hand labor. The Hillside Cultivator incorporates several tools for the different stages of growth. Timing is always critical.





- Rolling cultivator gangs are part of the cultivator in all seasons and are excellent for uprooting weeds while not cultivating too deeply.
- > **S-tines** mounted in the front position are used to move runners into the row. (pictured above)
- Finger Weeder attachment can be used all season for disrupting small weed growth along the row and close to plants. (pictured left)
- Through the late summer and into the fall, the width of the strawberry row can be controlled with the rolling cultivators and weeds between the row removed. These cultivations can remain shallow so that new weed seeds are not brought to the surface. Cultivation can also be done as an herbicide loses its effectiveness and prior to another low rate application.



The **Eco Weeder** is a PTO driven machine with rotating vertical teeth that are manually moved between and around young plants. An attachment is available for straw removal in the spring.



 Following harvest and mowing the plants, the Hillside Cultivator is ideal for strawberry renovation. Disk gangs are mounted in the



front position which are used to narrow the row and cut through the straw. A **coil tine** follows and fractures the soil which has been packed by foot traffic during harvest. The rolling cultivator in the rear rolls soil back toward the strawberry plants. Cultivating speed is 3-4 mph with two passes normal for each row. This machine is more economical and less disruptive of soil structure than a rototiller.



- The cultivator can be used for vegetables such as Pumpkins, Squash, Potatoes, and Cole Crops.
- The cultivator can be used to straddle a plastic bed.

Hillside Cultivator Co. LLC 911 Disston View Dr. Lititz, PA 17543 Cell 717-669-3158

www.hillsidecultivator.com Email: sales@hillsidecultivator.com

WARRANTY

NOURSE FARMS, INC. WARRANTS that the products it sells have been labeled as required by law and that they conform to the label descriptions. NOURSE FARMS, INC. MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR PURPOSE OR OTHERWISE. THE EXCLUSIVE REMEDY FOR LOSS OR DAMAGES DUE TO BREACH OF THE FOREGOING WARRANTY OR CONTRACT OR FOR NEGLIGENCE OR OTHER CAUSE SHALL BE LIMITED, AT THE OPTION OF NOURSE FARMS, INC. TO THE REPLACEMENT OF SUCH PRODUCT OR REFUND OF THE PURCHASE PRICE OF SUCH PRODUCT, AND NOURSE FARMS, INC. SHALL IN NO EVENT BE LIABLE FOR ANY OTHER DAMAGES, WHETHER DIRECT, INDI-RECT, INCIDENTAL, SPECIAL OR CONSEQUENTIAL.

By acceptance of the product, the buyer acknowledges that the limitations and disclaimers herein described are conditions of sale and that they constitute the entire agreement between parties regarding warranty or any other liability.

ORDERING Prices valid to May 31, 2021. Call or order online. Order early to ensure your first choices and on-time shipping. We make every effort to ship on time. We do not recommend fall planting.

PATENTED/LICENSED VARIETIES Identified by a *, cannot be propagated without permission. Royalty or usage fees are included in their prices. Patented varieties are protected by U.S. patent laws and licensed varieties are produced under contract with plant breeders.

PLANT PICKUP In an effort to keep everyone safe, contact us as soon as possible to schedule your pickup time. Orders can be scheduled for pick up in Whately, MA 8 a.m. to 4 p.m., Mon. through Fri. and 8 a.m. to 1 p.m., Saturdays in April and May.

SHIPPING AND HANDLING Charges are additional. Shipping by Ground Service unless otherwise specified. Five business days' notice required for orders with "open" ship dates. As ship dates are filling fast, we recommend scheduling your ship date as soon as possible by calling 413-665-2658. We will make every effort to accommodate date changes due to weather, but please plan accordingly.

ORDERS TO HAWAII AND ALASKA

Ships 2nd-day air only. Sorry, no exceptions.

ORDERS TO MIDWEST OR WEST COAST Shipped on a Monday or Tuesday. On warm temperature days, shipping is by 3-day service to ensure good condition. Added shipping charges are billed. California, Hawaii, Oregon and Washington must have phytosanitary certificates (\$15).

CANADIAN & FOREIGN ORDERS Import permits must be supplied 30 days in advance of shipment. All shipping by special arrangement. Nourse must receive payment in full with U.S. funds prior to shipment. Special fees may apply. Add \$50-\$200 for export certification by U.S. Dept. of Agriculture. Payment by credit card or bank transfer minimizes your bank fees.

PAYMENT

- · Orders \$250 or less must be paid in full within 10 days of placing the order or will be subject to cancellation.
- Orders exceeding \$250 require a deposit of 1/3 within 10 days of placing the order, or are subject to cancellation. Balance must be paid in full prior to shipment. In the case of a pickup, a customer may pay the balance at time of pickup.
- Orders shipping after June 1 must be paid in full by June 1 to reserve the plants, or the order will be subject to cancellation and loss of deposit. Orders shipping after June 1 are not eligible for refund if cancelled.
- Net 30 Terms may be extended for orders greater than \$500 for returning customers only; determined on a per customer basis, based upon a Customer Credit Application, and prior payment history with Nourse Farms.
- Service charges of 1.5% per month are added to past due balances.
- · We do not refund amounts less than \$3.
- · We accept Visa, Master Card, Discover, checks, money orders and cash.

A New Way to **Explore Our Content**



Now it's even easier to access our professional advice online! Visit NourseFarms.com/news, and use the left sidebar menu of article categories to jump into topics and articles you're most interested in. Click "Nourse Favorites" to find the top 12 most popular recent newsletter articles addressing topics you'll want to explore this time of year.

- · Blackberry Production Ins and Outs
- Strawberry Production Systems: Plasticulture vs. Matted Row
- Trellising & Pruning Brambles
- Strawberry Frost Protection Tips
- · Strawberry Fungicide Program Suggestions
- Floricane Red Raspberry Production
- **Key Small Fruit Pests**
- · Day Neutral Ins and Outs
- · Winter Injury Assessment
- · Fungicide Program Recommendations
- **Bramble Pests**
- · Rhubarb Update



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PAID

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Let's Connect Online











SPRING 2021



SOID OUI

Asparagus

Sold Out: All varieties

Black Raspberry

Sold Out: Jewel

Limited Quantities: All other varieties

Blackberry

Sold Out: Caddo

Limited Quantities: All varieties with the exception of Ouachita and Prime-Ark® 45.

AIRO 40.

Blueberries

Sold Out: Blue Ribbon, Bluegold, Chandler, Darrow, Duke, Elliot, Jersey, Last Call, Northland, Patriot, Reka,

Top Shelf

Limited Quantities: Bluecrop, Blueray

Elderberries

Limited Quantities: Samdal

Raspberry

Limited Quantities: All varieties

Rhubarb

Sold Out: Cawood Delight

Ribes

Sold Out: Blanka, Invicta, Jonkheer

Van Tets, Rovada, Tixia

Strawberries

Sold Out: Cabot, Darselect, Flavorfest,

Clancy, Portola

Limited Quantities: Allstar, Galletta,

Honeoye, Malwina, Seascape

Ship Dates

As ship dates are filling fast, we recommend scheduling your ship date as soon as possible by calling 413-665-2658.

Minimum five business days' notice required.

Be sure to check inside for our COVID shipping and pickup updates.