



# NEWS

## Greetings from Whately—

**Welcome to our 2023 Newsletter.** We've included articles we hope will help growers achieve the best results.

**2022 marked another rollercoaster year at Nourse Farms.** We experienced high input costs driven by inflation and unprecedented supply chain obstacles, making this one of the most unprecedented years in agriculture to date. With that said, we are excited to report that we have an excellent crop and are eager to get the plants into your fields.

**We are humbled that we continue to see growth in our business and can serve growers of all types.** As consumers continue to look for local berries in greater numbers, our team is here for you, every step of the way. Our team here at Nourse is dedicated to delivering high quality plants and excellent customer service. Our number one priority will *always* be to deliver high quality plants.

**We are honored to be relied on by you and your operation,** and we look forward to serving your plant needs in 2023 and beyond. We also look forward to seeing you at the various conferences and trade shows throughout the year.

**Wishing you a strong 2023.**

John Place, Chief Executive Officer



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

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# Canopy Management in Bramble Production

**Proper spacing and pruning is essential in maintaining healthy, productive bramble planting.**

In dense plantings, canes compete for light. This competition influences many factors of growth, such as cane height, and thereby productivity. For many growers, control of Spotted Winged Drosophila (SWD) has driven the focus on canopy management.

Ensuring proper in-row and aisle spacing, trellising plants, and maintaining cane density and vegetative growth will optimize yields, increase picking efficacy, and increase light penetration and air circulation, which can reduce pest and disease pressure. Lower cane density is also noted for increasing fruit size and quality, as well as increasing lateral length in floricanes production. Optimal cane density and pruning heights vary based on a grower's location, production methods, trellising, and variety but this article will review our recommended best practices.

## Red and Yellow Raspberries

Optimal cane density for in-ground red raspberry production is to maintain 6 – 8 primocanes per linear foot of row and then to reduce to 3 – 5 canes per foot. Cut canes to 6" above the top trellis wire, or about 4.5' – 5', in late fall. Double cropping varieties should be cut back two nodes below primocane fruiting in late fall. Excess canes, reduce fruit size and marketability, and increases disease pressure due to reduced air circulation and light penetration. Removal of growth, from lower 12" – 18" of canes, which generally produce poorer quality fruit, in the spring increases light penetration for new primocane growth improving early growth.

While there is no standard density for primocane raspberry production, growers are now focused on control of SWD. Keeping 6 – 8 canes per linear foot of row provides a good balance of berry size and overall yield and improves control of SWD. As SWD prefers to harbor in the lower canopy, removing foliage from lower 12" – 18" of canes in mid-summer reduces the preferred habitat and increases exposure to predators and pesticide applications. Lateral growth during the primocane season is generally limited due to apical dominance.

## Black Raspberry

For floricanes black raspberries, keeping 6 – 8 primocanes per plant/hill and then limiting to 4 – 6

canes for in late fall is recommended. Primocanes are tipped about 6" above the top trellis wire, or about 5' – 6'. This tipping causes lateral buds to begin growing. Prune laterals to 3" – 5" in late fall. It is important to keep laterals intact throughout the season and prevent them from contacting the soil, tip rooting. Cutting laterals during the growing season causes buds on laterals to grow, increasing canopy density and disease pressure and reducing berry size and quality.

In primocane production, timing and height of tipping highly influences yield and fruiting time. Primocanes should be tipped in early summer once they have reached 3' in height. Tipping increases lateral growth and thereby productive space but delays harvest. Growers looking to also produce a floricanes crop should cut laterals back two nodes below primocane fruiting in late fall. Double cropping should not be done until plants are at least 2 – 3 years old.

## Blackberry

Recommended cane density and pruning for floricanes blackberries on a standard trellis follows the same guidelines as black raspberries. When grown on the RCA trellis, blackberries should be maintained at 2 – 5 canes per plant, depending on the variety. Additional canes are not kept due to increased canopy density. Primocanes are trained horizontally to a low wire, about 16". When the cane reaches the next plant, they are tipped, and foliage is removed. Laterals are then trained vertically, leaving about 3" – 5" of space between them. It is important to remove any laterals growing below the bottom wire. This will assist in maintenance of new primocanes and increase air circulation and light penetration around the base of the plants.

For primocane blackberry production, canes should be tipped when they reach 12" – 15". Laterals should then be tipped once they reach a length of 30". This double tipping helps to balance between increasing productive space and reducing the delay of harvest. This is necessary in the North due to the shortened growing season, however even using this method there is often an abundance of green fruit left unharvested at frost. The use of row cover in the spring to induce earlier primocane emergence and growth in high tunnels can help to increase growth and extend harvest season and therefore yield.



# Cyclamen Mite

**Cyclamen mite is a pest of economic importance in strawberry production. Issues with cyclamen mite are not common but can cause significant loss of yield to strawberry plantings.**

Cyclamen mites can also cause damage to several other crops including pepper, tomato, and some ornamentals. This species is particularly difficult to control as they harbor in the crown of the plant making adequate spray coverage challenging.

## Description and Life Cycle

Cyclamen mites develop from egg to adult in 8 – 20 days. High humidity, 70% - 90%, and moderate temperatures, 60 – 80 F, speed up development however temperatures over 95 F can cause mite and egg death. Eggs are elliptical, opaque, and smooth, larvae are also opaque. Adults are small (about .2mm long), and translucent, or orange-pink tinted. Females lay about 2 -3 eggs per day and can lay about 90 during their life. Adult females overwinter in the strawberry crown or in other plant material on field perimeter.

## Damage

Cyclamen mites live within unexpanded leaves and buds in the crown of the strawberry plant. Feeding causes crinkled or crumpled leaves as well as stunted plants. Due to their small size and slow movement in fields, infestations are often not noticed until symptoms occur when populations on plants are high.

## Control

With the loss of Thiodan (Endosulfan), chemical control of cyclamen must now be focused on preventative action. Growers with previous exposure to cyclamen must take care to avoid repeated infestations. Prevention starts with good sanitation, clean plants, and well-timed spray applications, as to prevent damage to predators. Biological controls are available and

continue to be tested but have not been proven to be an effective control method.

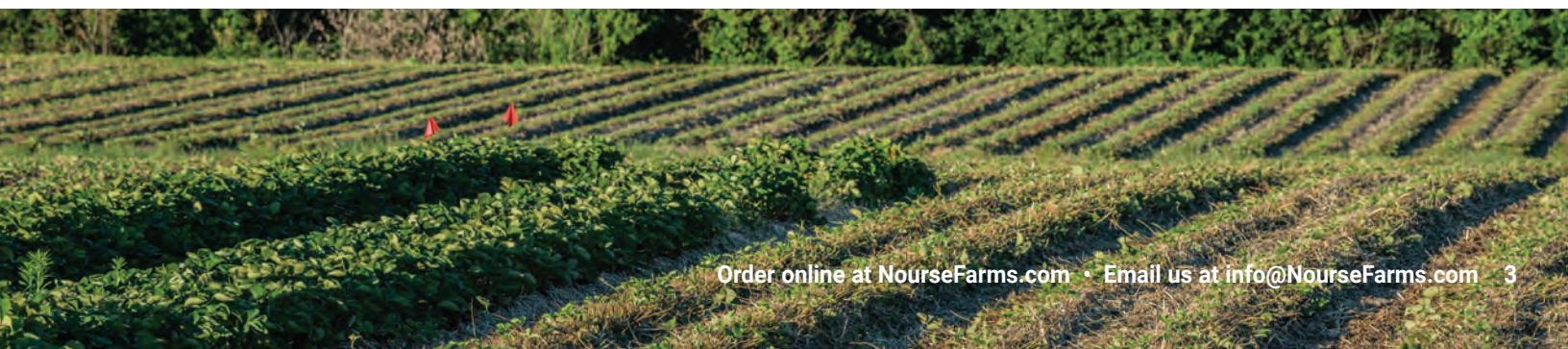
As cyclamen overwinters in plant material rather than in soil, keep field and perimeter free of weeds. Due to their small size and winglessness, these mites often spread by wind, bees and other flying insects, irrigation, and by contact with workers or equipment but will also crawl from plant to plant if the leaves are touching.

Chemical control options for cyclamen mite should be discussed with local extension agents. Some products may include Agri-Mek, Diazinon, Oberon, Portal, and Zeal. Pesticide treatments should be limited as much as possible to reduce potential damage to predators as this can cause cyclamen populations to rise.

Miticide treatments require high volume applications (200 – 400 gallons per acre) to adequately soak immature leaves and buds deep in the crown. Hot spots can be treated early with a hand sprayer to prevent spraying entire fields. A surfactant should be added to increase translaminar movement.

Application timing is also a key factor in cyclamen control. Key times for applications are before the canopy closes as they provide the best penetration and leaves can act as a funnel, directing miticides to the crown. During the planting year, applications should be made 5 – 6 weeks after planting (before the first runners emerge) and in the fall prior to straw being applied. Fruiting year applications should be made at leaf emergence and at renovation when leaf growth is minimal, and crowns are well exposed.

*Below: strawberry field after renovation*



# FIVE POINTS TO PONDER

Moving into 2023!

## SWD UPDATE

Many growers, Nourse Farms included, are continuing to battle SWD pressure with little to no development of new controls. Our current recommendation includes monitoring for SWD activity with traps and fruit sampling to determine pest presence in field followed by regular pesticide applications.

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### Trapping/monitoring





























Traps can be made using a lidded plastic container with 3/16" holes drilled in sides and filled with bait. Baits can be purchased commercially or made using fruit juice or apple cider vinegar with a drop of dish soap. Traps should be hung in a shaded location in the plant canopy. Once SWD is detected control should begin.

## Cultural Control

Cultural practices, such as regular picking and removal of overripe and dropped fruit, can help to keep populations from rapidly growing. Carefully managing cane density can also reduce the preferred habitat for SWD while improving insecticidal coverage.

For organic and low spray production, exclusion netting is an option. It does require an up-front investment and careful management for best success. Netting must be put into place before SWD appear but after pollination has occurred and regular monitoring for holes or gaps is crucial. A well-designed entryway is required to ensure SWD aren't introduced to your planting when going in and out of the structure.





















Trade Name	Active Ingredient	IRAC Code	Efficacy	Labeled For
<u>Bifenture</u> 10DF	Bifenthrin	3	Excellent	  
Brigade WSB	Bifenthrin	3	Excellent	  
<u>Danitol</u> 2.4EC	<u>Fenprothrin</u>	3	Excellent	  
Mustang Maxx	Zeta-cypermethrin	3A	Excellent	 
Delegate WG	Spinetoram	5	Good/Excellent	 
Entrust <u>Naturalyte</u>	Spinosad	5	Good/Excellent	  
<u>Verdepryn</u> 100SL4	<u>Cyfluprol</u>	28	Good/Excellent	  
Admire Pro	Imidacloprid	4A	Good	  
Malathion 5EC	Malathion	1B	Good	  
Assail 30 SG	Acetamiprid	4A	Fair/Good	  

## Chemical/biological control

Research is being conducted on a species of parasitic wasps as a potential control. These parasitic wasps are a natural predator to SWD and have now been released in three different locations to study their efficacy in reducing SWD numbers. We will continue to report updates via email as new information emerges.

Insecticide treatments for SWD only affect adults and therefore should be started at first detection and continue through harvest. Rotate insecticides by their mode of action and IRAC group to reduce risk of resistance, and do not use the same product for repeated applications. Applications should be made at a minimum of every 5-7 days, based on your pressure.

	Trade name	Active Ingredient	IRAC code	Efficacy	Labeled For
Organic	Entrust*/ Entrust SC*	Spinosad	5	Good	  
	<u>Pyganic</u> EC 1.4*	Pyrethrin	3A	Weak	  
	<u>AzaSol</u> *	Azadirachtin	UN	Fair/Poor	  
	Molt-X*	Azadirachtin	UN	Fair/Poor	  
	<u>Grandevo</u> *	<u>Chromobacterium</u>	UN	Weak/fair	  
	Venerate XC*	<u>Burkholderia spp</u>	UN	Suppression only	  

SWD photo: Martin Cooper [creativecommons.org](https://creativecommons.org/licenses/by/4.0/)

## ASPARAGUS BASICS

Asparagus, one of the first crops of the season, can be an excellent choice to supplement your berry crop cash flow. Harvested from April – June in the Northern U.S., asparagus is easy to

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manage, and a single planting will stay productive for many years. Asparagus performs best at a pH of 7.2 or higher. Planting depth ranges from 6" on a heavier silt or clay soil to 10" – 12" on a lighter, well-drained soil. Planting at the maximum recommended planting depth may delay emergence, which

has been shown to reduce risk of frost damage in the early season. In general, irrigation is not necessary unless you are in dry conditions, and in that case, drip irrigation works well. Fertilizer rates based on soil tests should be applied, half in early spring and half post-harvest. Regular scouting for asparagus beetles/larva, aphids, asparagus miner, purple spot, is suggested. Control of powdery mildew is crucial to keep ferns green until mid October, which allows them to photosynthesize and send carbohydrates to the roots until frost.

Research shows you can harvest asparagus for 7 – 14 days the year after establishment, for 3 – 4 weeks in year two, and for the full 6 – 8 week-season in the third year and after. It is important to monitor spear size and cease harvest early if spears become thin and spindly, allowing the remainder of emerging spears to go to fern.

Old ferns may be mowed in the spring with a rotary mower and can be left as a mulch for weed control. Keeping bed clean of weeds during the harvest period is critical, and methods are limited to manual weeding during harvest to avoid injuring emerging spears. Additional options for weed control include practicing no-till and/or a selection of pre-emergent and post-emergent herbicides. We recommend consulting your local Cooperative Extension for a selection of recommended herbicides for your state.



More detailed information regarding planting, growing, and marketing asparagus can be found in Asparagus Production – From A to Z by Carl J. Cantaluppi Jr. or by speaking to one of our cultural experts. For herbicide recommendations, see 2022 Cornell Integrated Crop and Pest Management Guidelines for Vegetable Crops, which is available for purchase at [cropandpestguides.cce.cornell.edu](http://cropandpestguides.cce.cornell.edu)

## HERBICIDE CARRYOVER & NEW STRAWBERRY PLANTING SITE SELECTION

Looking to put in a new field of strawberries? Knowing the field history of herbicide applications can be important when planning for the coming seasons planting. Some herbicides are persistent in the soil and can affect sensitive crops like strawberries 18, 24 and even 36 months out from the application. Knowing what product (s) were used the previous 1-2 years prior to planting is critical; 3-4 years ideal. Once the product used is known, it's important to read the label or consult your Ag dealer or weed specialist to learn about any plant back restrictions. Product labels can be found at [agrian.com](http://agrian.com) or by doing product name searches using Google or other web browsers.

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Soil texture, soil pH, changing the pH (lime applications), rainfall, herbicide application rates, and spray overlap (effectively a 2X application rate) can all impact herbicide persistence. Group 2 herbicides, (ALS inhibitor), commonly used in corn, soybean, and other crops, are generally a persistent herbicide group. An example of a Group 2 herbicide used in pumpkin fields is Sandea. The label lists a plant back time of 9 months for caneberries and 36 months for strawberries. Some products have no listing for strawberry plant back, but the possibility of carryover to a new strawberry planting exists. Without direction from the product label, it's best to be cautious and wait as long as 36 months.

Herbicide carryover can cause crop injury ranging from minimal to complete crop loss or plant kill. Injury problems have typically arisen where normal breakdown of herbicides has been inhibited by factors such as drought and pH. Symptoms can include general and interveinal chlorosis, mottled chlorosis, yellow spotting, purpling of the leaves, necrosis, and stem dieback.

*Continued on page 10*



# June-Bearing Strawberry Nutrition

Key fertilization practices through the life of your planting.

## Planting Site Preparation

The first step in developing a comprehensive fertilization program for strawberries begins the year before a spring planting. Soil samples should be taken in the summer, allowing for time to apply lime during the fall. This soil test is a key way to evaluate not only nutritional levels in the soil, but also pH and Cation Exchange Capacity (CEC). Strawberries prefer a soil pH 6.5 – 6.8 with 6.0 – 7.0 being acceptable. CEC is important as it will measure the ability of a soil to absorb calcium (Ca), potassium (K), and magnesium (Mg) ions (among others) and its resistance to change pH in response to liming and sulfur additions. Clays and soils high in organic matter have a high CEC, whereas sands have a low CEC.

Organic matter is a small but important component of soils. As organic matter continuously breaks down, the process of mineralization can provide some nutrients for plant growth. Organic matter also improves soil structure, allowing for good drainage while improving its moisture holding capacity. A range of 4 – 6% organic matter is ideal. If the organic matter level of the soil is historically low, cover crops (plowed in) and compost should be considered.

Overall fertilizer practices should be based on the results of yearly soil tests and leaf analysis

if warranted. The following is guidance for our suggested practices.

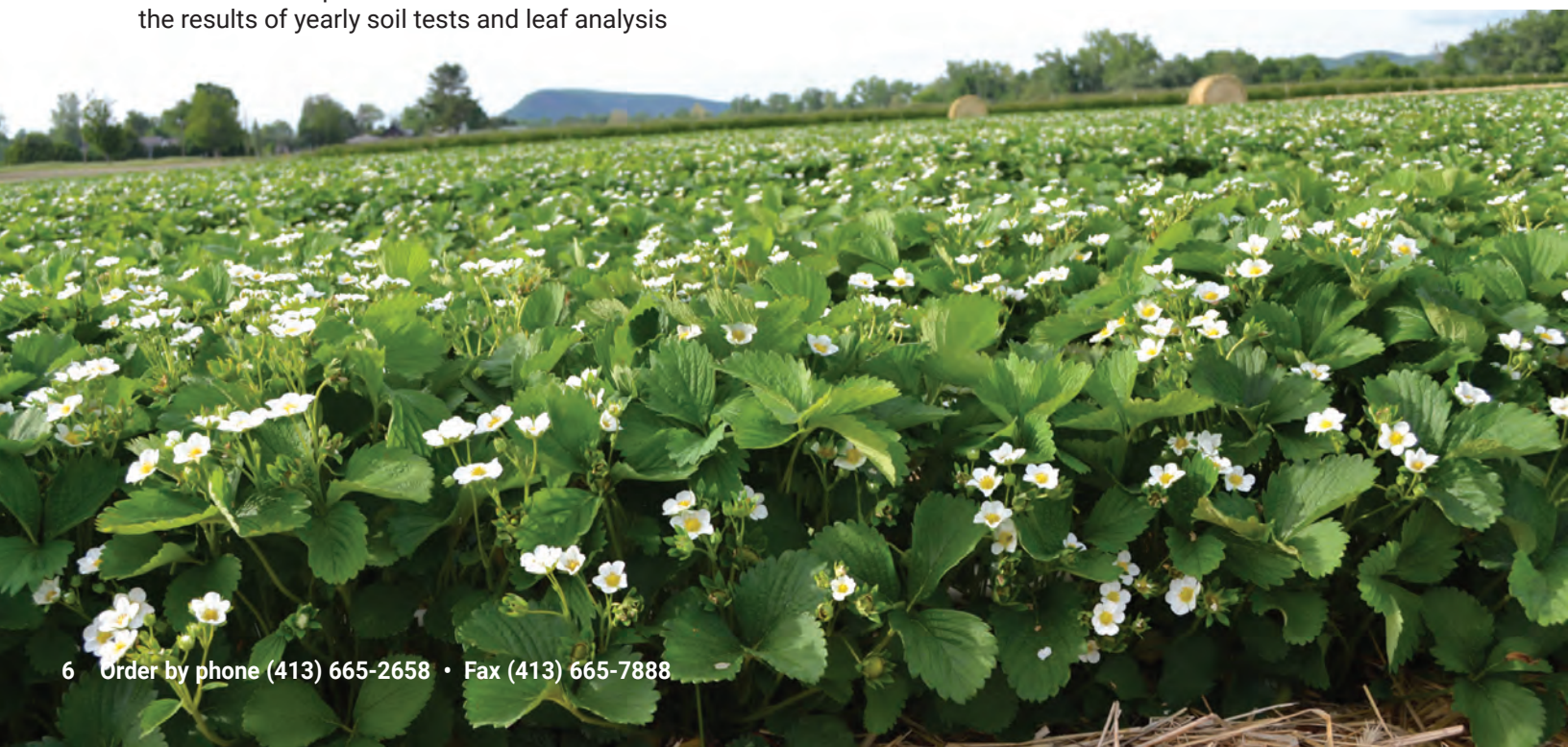
## Preplant Fertilization

Whether you are on a matted row or plasticulture system, fertilizing prior to planting is a key first step in your strawberry nutrition program. Rates should be determined through soil tests taken the previous summer. Depending on soil type (light, medium or heavy) we recommend 50 – 60 units actual nitrogen per acre with corresponding amounts of phosphorous and potassium, in a slow-release form. On matted row, this is about half of the total 90 - 120 units per acre seasonal requirement. For growers on plastic, fertilizer should be worked into the soil, prior to bed shaping. Matted row growers, when fertilizer is incorporated well in the root zone, can begin that process 1-2 weeks prior to planting.

## Establishment Year - Matted Row System

The goal with fertilization practices in matted row systems, in the establishment year, is two-fold – encouraging runner development and aiding in flower bud initiation. For runner development, we recommend 20 - 30 units actual nitrogen,

*Continued on page 10*





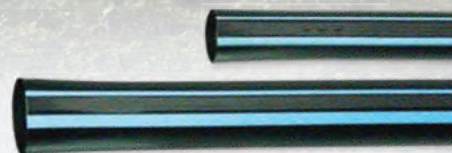


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†Profitability and yield depend on a number of factors beyond irrigation system performance

\*when compared to standard drip tapes



## 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.



- 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 **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.



- 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

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# Hot Topics in Small Fruit Weed Control

Based on a recent customer survey, weed control for strawberries and raspberries continues to be an important topic, particularly weed management in strawberries during the planting year and bramble weed management on an established field.

## Strawberry Planting Year Weed Control

By selecting the site in the fall prior to planting, you have the opportunity to identify and observe what weed species will be a problem, and to treat the site accordingly to remove those weeds. Identification is important as several of the most prominent weeds have specific herbicides and application timing necessary for control to work effectively. There are several weed identification references available that are very helpful including the MyIPM phone app, as well as the Cornell University ([cornell.edu/weedid](http://cornell.edu/weedid)) and University of Wisconsin ([wisc.edu/weedid](http://wisc.edu/weedid)) websites.

### Suggested options for weed control planting year:

- Roundup 30 days before planting. After weeds die, till to prepare for planting.
- For pre-emergent broadleaf control, two ounces of Sinbar per acre within 24 hours after planting. Water ½-1" after to wash the Sinbar off the strawberry plants. Irrigate in ½ - 1" inch of water.
- Devrinol for pre-emergent grass control. Must be watered in with at least 1 inch of moisture to activate. You can use Devrinol throughout the growing season provided you have a good irrigation program after application. At least an inch of water not only activates the product, but regular irrigation works it deeper into the soil, allowing runners to set properly.
- Poast or Selectmax for post emergent grass control. Both are effective on small, actively growing grasses. Select has shown improved activity over Poast on cool-season and perennial grasses. To improve activity on perennial grasses, add 2.5lb/acre ammonium sulfate and repeat application at 14 days. Leaf burn can occur with Poast if applied on hot and humid days.
- In some states, Stinger is labelled for use for post emergent control of broadleaves.
- Dacthal may be an option, is an excellent pre-emergent, specifically for oxalis.
- Check out our Fall 2021 Newsletter in the Commercial Growers section at [noursefarms.com](http://noursefarms.com), where we give a comprehensive review of late fall weed control options.

## Weed Control in Established Bramble Fields

We have found that many perennial weeds can be reduced or eradicated with a **Casaron 4G** application, after dormancy during winter. This is a great herbicide, but growers must be very careful with application timing and rates. Use of a full rate of Casaron 4G will show yellowing of leaves in the spring and can severely hurt the plants if not applied properly. As it's a granular, calibration and testing of the granular spreader you are using is critical. We recommend doing a test run of the spreader, along the edge of the field, to doublecheck the output is consistent throughout the row, at the labeled rate. ***We do not recommend the application of Casaron 4G in the spring.***

For spring applications, in our spring newsletter, we noted **Trellis SC** as a pre-emergent herbicide option to control grasses, as a replacement for Surflan, which will no longer be available. Like our experience with the broadleaf pre-emergent herbicide Princep, damage can be seen using the full rate, particularly on light, sandy soil. Other options to consider would be **Sinbar** for broadleaves and **Devrinol** for annual grasses. Based on grower feedback, calibration when using Sinbar, is critical here as above the low end of the label rate can cause plant damage. Devrinol must be watered in to be effective. Summer post-emergent weed control options include Poast or Select.

**PLEASE NOTE** – Not all of these herbicides are labeled in every state. Consult your state recommendations for labelling and the weeds controlled.

## SMALL FRUIT IRRIGATION

As we look at this season, it is clear the impact water levels can have on crop yield and size.

**4** Consistently, overhead irrigation is a critical component for frost protection on strawberries. As you look at your irrigation practices on strawberries from post-bloom through harvest, depending on soil type, plants respond best to two inches or more per week. During harvest, berry crops require continuing high levels of irrigation to maintain berry size. Growers using drip irrigation daily benefit from the maintenance of good moisture levels and evaporative cooling. Drip irrigation is also beneficial in fields where differences in elevation results in wet fruit from puddling due to uneven water distribution. An additional benefit is the ability to inject fertilizer to “spoon-feed” the plants. As many head into the winter season, protection of irrigation equipment from winter damage is important. Your system should be parked in a safe location away from potential wind, rodent and tree damage. All parts of the system, including underground lines should be drained. Trickle and drip lines not covered by plastic, plant material or mulch stand less winter rodent damage.

## ORDER EARLY

Variety availability varies each year depending on our final pack-out and shifting customer demands. Plant orders for spring planting should be placed as early as October for best selection. This also allows customers to take advantage of our 3% Early Pay Discount for orders over \$500 that are paid in full by December 1.

**5** We will continue to offer strawberry plugs for late summer – fall planting of Galletta, Yambu, Darselect, Flavorfest, Cabot, and Malwina. We are able to take your quantity needs now and confirm your order, with pricing available at a later date. For Fall 2022, we were sold out of plugs by April 1st. This means that we will likely be sold out in mid-summer when you start considering your fall planting plans. To ensure that you receive the varieties and quantities you need, early ordering is essential. Strawberry plug plants do not qualify for early pay discounts.

side dress when first runners start. This should be followed up with an additional 20-30 units top dress in August prior to fruit bud initiation.

## Establishment Year - Plasticulture System

In the Plasticulture system, whether you are planting bare root in late June/July or plugs in late August, the goal is to get branch crowns (2-3) along with excellent crown size in the mother plant. Since you are pushing plants in a short period of time, in addition to your pre-plant fertilizer, recommend 1-3 lbs. of actual nitrogen per week through the drip system. We alternate 9% calcium nitrate with a balanced fertilizer that includes micronutrients – one calcium application for every three balanced fertilizer applications.

## Fruiting Year(s) Spring Fertilization

When a complete fertilizer program is followed the previous season, there is little fertilizer needed in the spring with two exceptions. One exception - light applications of 8-15 lbs. actual N total in cases of moderate to severe winter injury. The second exception is the addition of micronutrients to fungicide sprays during blossom. On certain varieties (Sonata, Cabot, Darselect), the addition of Solubor (boron) or Epsom salts (Magnesium) can improve fruit quality.

## Fruiting Year(s) Fertilization at Renovation

Having used much of its nutrient's resources through plant establishment and fruiting, renovation is a key time for fertilization. We recommend 70 units of actual nitrogen as part of a complete fertilizer applied after mowing and narrowing of the row. This includes phosphorous, potassium and any micronutrients found low on a soil test prior to renovation. Irrigate after application.

## Fruiting Year Late Summer/Early Fall Fertilization

Similar to the establishment year, an additional late summer application of 20 – 30 units prior to fruit bud initiation is recommended. Knowing your soil nutrient status through routine soil tests, combined with timely application of complete fertilizer, including appropriate levels of nitrogen for your soil type should yield an excellent crop of berries! **Please let us know if you have questions or need additional information.**



Strawberries		500	1000	5M+/1M	25M+/1M	
June Bearing Varieties						
Allstar, Earliglow, Honeoye, Jewel		\$125.00	\$200.00	\$190.00	\$180.00	
Annapolis, Sparkle, Flavorfest		\$134.00	\$214.00	\$204.00	\$193.00	
Cavendish, *Darselect, *Galletta, Brunswick, All Exp. Var.		\$138.00	\$220.00	\$209.00	\$198.00	
*Dickens, *Wendy, *Valley Sunset		\$144.00	\$230.00	\$219.00	\$207.00	
*Yambu, Cabot, *Sonata		\$154.00	\$245.00	\$233.00	\$221.00	
Everbearing Varieties (Day-Neutrals)						
Seascape		\$144.00	\$230.00	\$219.00	\$207.00	
*Albion, *Evie 2, *San Andreas		\$149.00	\$238.00	\$227.00	\$215.00	
Mara des Bois		\$194.00	\$310.00	\$295.00	\$279.00	
IMPORTANT! Pricing is per variety unless total combined is between 15,000 and 24,999, use 5M pricing; total order at or over 25,000, use 25M price.						
Red & Yellow Raspberry Varieties		100	150	600	1000	
Boyne, Caroline, Heritage, Killarney, Latham, Nova,			\$398.00	\$1,153.00	\$1,324.00	
*Encore, *Polana, *Polka, *Prelude			\$438.00	\$1,267.00	\$1,455.00	
Anne		\$292.00		\$1,267.00	\$1,455.00	
*Joan-J, *Himbo Top®			\$446.00	\$1,290.00	\$1,482.00	
*Double Gold			\$572.00	\$1,655.00	\$1,902.00	
Black Raspberry and Blackberry Varieties		100	300	600	1000	
Bristol, Jewel, Mac-Black, Chester, Triple Crown, Royalty		\$413.00		\$2,053.00	\$2,682.00	
*Natchez, *Ouachita		\$454.00		\$2,257.00	\$2,948.00	
*Niwot, *Prime Ark® 45, Prime Ark® Freedom, *Caddo, *Sweet Ark™ Ponca, All Exp. Var.		\$477.00		\$2,369.00	\$3,094.00	
Asparagus (Available as 1-Year-Old Crowns)		300	600	1000	14M+/1M	
Mary Washington		\$166.00	\$249.00	\$276.00	\$249.00	
Purple Passion		\$176.10	\$316.50	\$351.00	\$316.00	
Millenium		\$200.00	\$360.00	\$399.00	\$360.00	
Blueberries		10	50	100	500	1000+
Bluecrop, Bluegold, Blueray, Chandler, Darrow, Duke, Elliott, Jersey, Northland, Patriot, Reka	\$10.00 ea.		\$9.25 ea.	\$8.50 ea.	\$7.75 ea.	\$7.25 ea.
*Blue Ribbon, *Top Shelf, *Last Call	\$10.75 ea.		\$10.00 ea.	\$9.25 ea.	\$8.50 ea.	\$8.19 ea.
Rhubarb		50	100	500	1000	
Macdonald		\$9.00 ea.	\$8.00 ea.	\$7.00 ea.	\$6.31 ea.	
Cawood Delight		\$10.00 ea.	\$9.00 ea.	\$8.00 ea.	\$6.92 ea.	
Horseradish			100	500	1000	
Big Top			\$248.00	\$1,116.00	\$2,002.00	
Currants/Gooseberries		50	100			
All Currants		\$10.25 ea.				
Hinnomaki Red		\$12.25 ea.				
Invicta, Tixia		\$15.25 ea.				
Elderberries		50	100	500		
Samdal, Samyl		\$10.75 ea.	\$10.00 ea.	\$9.00 ea.		

**Varieties cannot be combined for quantity discounts (except strawberries, see above).**

*\*Patented varieties. Prices include royalties.*

**To qualify for Early Pay Discount, your plant order total must be \$500.00 or over.**

(Normal prices will apply for lesser orders.)

**COMMERCIAL GROWERS ONLY QUALIFY; no re-sellers.**

If paid in full by 12/01/22, take 3% discount. If paid in full by 01/15/23, take 2%.

Discount applies to plant total only, shipping cost based on total before discount.

**Plants shipped after 06/30/2023 are supplied at the customer's own risk.**

**Early  
Pay Discount**

Orders over \$500,  
paid in full by:  
Dec. 1, '22 save 3%  
Jan 15, '23 save 2%  
Order early!


Order now for best variety selection!



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**MASSACHUSETTS DEPARTMENT OF AGRICULTURAL RESOURCES**  
Crop and Pest Services  
251 Causeway Street Suite 500  
Boston, MA 02114



**Certificate of Nursery Inspection**

License No. N-2022 155      Fee: \$210      Issued: 5/4/2022  
THIS CERTIFIES THAT: in accordance with M.G.L., 128, section 17 as amended, the  
Nursery stock at:  
**Nourse Farms, Inc.**  
41 River Rd.  
Whately, MA 01093

Has been inspected and found to be apparently free from all injurious insects and plant diseases which might be disseminated on such stock.

Expiration Date: 6/30/2023      Issued by: Howard Vinton

Let's Connect Online



FALL 2022

## Nourse Farms on the Road

We attend several trade shows each year so that we can be available to meet commercial growers across the country. We have found that face-to-face meetings with our customers provide a great opportunity for us to work closely with you to determine your plant requirements.

Below is a list of tradeshows we will attend during the 2022-2023 season.

Dates	Trade Show	Location
Dec. 6-8, 2022	Great Lakes Fruit, Vegetable and Farm Market Expo & MI Greenhouse Growers <a href="https://glexpo.com">https://glexpo.com</a>	DeVos Place Grand Rapids, MI
Dec. 13-15, 2022	New England Vegetable & Fruit Conference <a href="https://newenglandvfc.org">https://newenglandvfc.org</a>	Center of New Hampshire Double Tree by Hilton Manchester, NH
Jan. 12-13, 2023	Mid Ohio Growers Meeting <a href="https://midohiogrowers.com">https://midohiogrowers.com</a>	Mt. Hope Event Center Millersburg, OH
Jan. 22-24, 2023	No. American Raspberry & Blackberry Conference <a href="https://www.raspberryblackberry.com">https://www.raspberryblackberry.com</a>	Hotel Alba Tampa, FL
Jan. 31 - Feb. 2, 2023	Mid-Atlantic Fruit & Veg. Convention <a href="https://www.mafvc.org">https://www.mafvc.org</a>	Hershey Lodge & Convention Center Hershey, PA
Feb. 27-28, 2023	Indoor AG-CON <a href="https://indoor.ag">https://indoor.ag</a>	Caesars Forum Las Vegas, NV
March 7-10, 2023	North American Strawberry Growers Assoc. (NASGA) Annual Meeting & Symposium <a href="https://www.nasga.org">https://www.nasga.org</a>	Embassy Suites San Luis Obispo, CA

**EARLY PAY DISCOUNT!** Orders over \$500 paid in full by Dec. 1, '22 save 3% | by Jan 15, '23 save 2%  
**ORDER NOW FOR THE BEST SELECTION!** ORDER ONLINE: [NourseFarms.com](https://NourseFarms.com) PHONE ORDERS | CUSTOMER SERVICE: (413) 665-2658  
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