

SOUTHEAST STRAWBERRY EXPO
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ORGANIC STRAWBERRY PRODUCTION

Site Selection- The most critical factor is for water to be able to move off the field particularly at the ends of rows. There is a lot of water applied during frost-freeze protection time and this must have a place to go and not stand in the field. Proper field drainage needs to be set-up prior to laying plastic and then the finishing touches put to the field immediately after plastic is laid. Often this requires some shovel and rake work around the ends.

Windbreaks on the North and NW sides of the field are helpful. Usually the “Alberta Clippers” are coming to us from about February 20th to March 20th - - and this is when berries are putting on their 1st blooms. Wind breaks help slow the wind that usually accompany these advective freezes - - temps are often in low 20’s to low teens.

Fertility – Soil pH 6.0 – 6.2

Conventional fertility recipe calls for 60-40-120 applied in the fall (broadcast) prior to laying plastic- - followed in the spring with 60 more pounds of N through the drip. For organic culture the first thing is to get a soil test ASAP. Get the ground torn up and apply 30 cubic yards of compost/acre. This is enough compost to cover the ground with hardly a bare spot showing anywhere. A spreader truck with gate wide open and spinners slowed way down can cover 10-12 feet per pass and can accomplish this. The truck will have to make more than 1 pass- - usually splitting the 1st track to get more uniform spread. Disk this compost in the same day as applied. As soon in May as you can plant a cover crop of soybeans and millet. Use untreated seed – no Roundup Ready. 2 bushels of soybeans plus 30 pounds millet/acre. Mix in a grain drill and seed when there is good moisture in the ground. Do not seed when the soil is as dry a “doodle dust” and expect good results. This cover crop is important to your overall fertility plan and must work with the compost to provide nutrients that will be needed when plants hit the field on October 1st.

The cover crop should be flail mowed to shred in small pieces prior to seed formation in the millet. Both millet and soybeans will still be green. As soon after mowing – even the same day – work the field with any implement that you think can put the cover crop in the ground the best. Get as much of it down deep if you can. Do not allow the cover crop to dry out like hay. Get it into the soil as best you can. Naturally, there will be some of your cover that will be left on top and will require a couple of additional passes over a 2 week period to get it completely mixed in the soil. This should be done prior to August 1st!!

After August 1st apply 20 cubic yards of compost/acre and disk in immediately. This can be done as a part of the plastic laying operation – usually in late August or early September. You will need time for the beds to settle and volunteer weeds to come up which will help the field tolerate equipment and people traffic come planting time. Also remember that hurricane season starts at this same time of the year - - I think early is better than late.

There is an advantage in that there is no fumigant applied, so plastic can be put down even just a day or two ahead of setting out plugs. It may be necessary to apply 10-20 units of N through drip after plants are two weeks old. Source and need to be decided later.

Fall Drip

After plastic is laid it should be hooked up and checked out. You will need to pre-wet beds before setting plugs and possibly add some fertility through drip 2 weeks after setting.

Fall Monitoring and clean up

Watch for deer damage and act as soon as you see a small amount of damage. I like the product Plantskydd at the damage site and along the perimeter both ways from the initial damage site.

Watch for dying plants – rogue them from the field and send samples to the plant disease lab for positive ID. You cannot possibly know what to do unless you know what the disease is. First clean up should occur Dec. 1-10th. Clean any weeds from the plant holes. Also at the same time, remove any dead and dying leaves. More than 50% of the botrytis inoculum can be removed when this operation is performed. It is OK for the leaves and weeds to be put in the row middles, but it would be better if the trash was collected in buckets and carried out of the field and dumped away from the field (this will take more time and adds to cost).

Watch for mites - - anytime after plants are established and prior to mid-December mites should be monitored. If you have mites, you should spray with M-Pede insecticidal soap. Rate is 2 gal/100 gal at minimum of 150 PSI and 100 gal/acre. It is easy to kill mites at this stage because plants are small and you can bounce the spray off the plastic and hit the underside of the leaves where the mites are. This is why high pressure is important. It will take 2 applications about 10 days apart. M-Pede controls adults and you have to make a 2nd application to control the newly hatched that were eggs at the time of 1st application. If you clean up mites at this stage chances are that you will remain mite free into the spring and through the picking season.

Spring Clean up/Row Covers

This operation is exactly the same as fall clean up, and usually takes place during the first 2 weeks of March. The purpose is to clean any weeds and remove any dead and dying leaves that were killed by cold temperatures during the winter. If row covers are used, this will minimize the amount of dead and damaged foliage, and row covers can bring the

crop in 10-14 days earlier. Covers work well for Sweet Charlie and Camarosa but in general are not recommended for Chandler. I like to apply row covers at the end of December and leave them on until late February.

Disease/Insect Control in Picking Season

The first line of defense against disease if Anthracnose or Phytophthora or Botrytis crown rot is to remove plants from the field. In the case of Angular leaf spot, botrytis fruit rot, I spray Oxidate at 1 gal/100 gal water. This product (Oxidate) is in my mind still somewhat unproven and I'm not sure how well it actually works since there is no university data on it. I have never actually run any trials myself either. Oxidate was originally OMRI approved and then removed. Now just recently (Sept.05) OMRI listed as approved once more. Cost/application is about \$40.00/acre. I think Oxidate can help if disease situation is in early stages and if sprayed on a 5-7 day schedule. Oxidate can burn your skin - - - be careful handling.

If mites or aphids are a problem in season I would spray with M-Pede plus Oxidate. I have found that these two actually do a pretty good job of knocking down a population. Follow with a second application 7 days later.

Supplemental Spring Fertility

I apply a product (preplant) from Nature Safe 8-5-5 at 800 lbs./acre and don't usually have to worry about fall fertility or about early spring N applications. With conventional culture, N applications will usually begin around March 1st. With the Nature Safe product, I plan to monitor nutrient needs with tissue tests and apply supplemental N as needed.

Post Picking/Cover Crop/ Rotation

Field clean up and planting a summer cover crop needs to take place as soon as possible after picking is complete.

Cover crop for summer that I like is Millet (30-40 lbs.) plus Soybeans at 50-60 lbs./Acre. A fall winter cover that works well is Crimson Clover at 30 lbs./A plus Oats at 40 lbs./A.

I think it is best if you can rotate your berry field and that allows for plant debris to rot completely between crops. It also allows for 2 different types of cover crops to be in the rotation. If space or location are not issues, strawberries every other year will be best.