



## **New Planting**

Preparing a field for a new planting takes time and should begin the year before you intend to plant.

A field that is to be planted should be soil tested the year before and the corrective fertility and lime program should be put into place at this time in order to get it in shape for planting in the following spring.

If P and K levels are low, building P and K in the soil and working it in the top 6 inches is recommended. Follow soil test recommendations or call the lab for further information.

Follow A&L lime recommendations using dolomitic lime if pH is below 6.4 and Magnesium levels are below 15% saturation. If pH is below 6.4 and Magnesium is above 15% use calcitic lime. In fields that pH is 6.4 but calcium levels are below 70% use gypsum at 1000 to 1500 pounds per acre.

The year before is also the time to tile or prepare surface drains. Strawberries do not like wet feet.

Early in the spring when soil is dry enough to work prepare the soil. Herbicide application at this time can be trifluralin or Dacthal broadcast and worked in prior to planting. This

application should be at a 90° direction to the row direction.

If herbicide application is not done prior to planting, an application of Dacthal or Devrinol cultivated in 2 to 6 weeks after planting can be used; or once the strawberries have developed 3 FULL sized leaves you can apply Sinbar ( see previous newsletter for Sinbar rates).

Do not plant strawberries on land that has had Pursuit for at least 4 years after the Pursuit application. Strawberries are very sensitive to Pursuit. I have seen damage on fields up to 4 years after.

An application of Sol U Bor at 5 pounds per acre should be applied with the herbicide at this time.

When ordering plants make sure that if you intend to go with a high density planting that you request the larger crowns. This system works best with the bigger crowns.

When planting make sure that the varieties that you are planting are similar in nutrient requirements ie. Nitrogen needs, so that you can treat them at the same time. Varieties respond to Nitrogen differently and as you will see in the Newsletter Vol. 4 I will recommend fertilization of different varieties with N at different times depending on their specific needs.

Nitrogen application of Strawberries is a sensitive issue too much or too little will create yield and quality problems. If you over apply Nitrogen to a variety when it is not needed it will promote excessive growth slowing down maturity and increasing disease pressure. If you allow

the strawberry to drop below critical ranges in N too soon, size of fruit and production will be reduced.

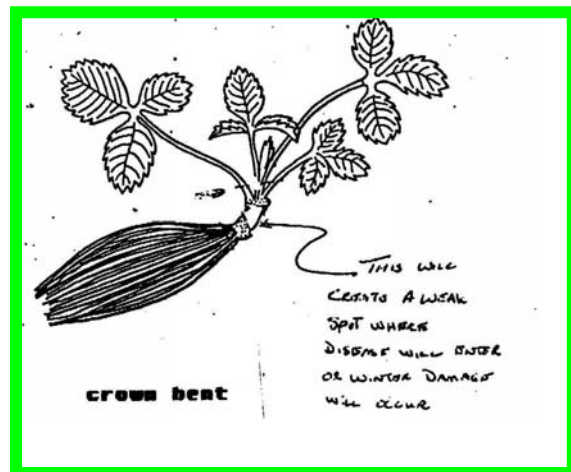
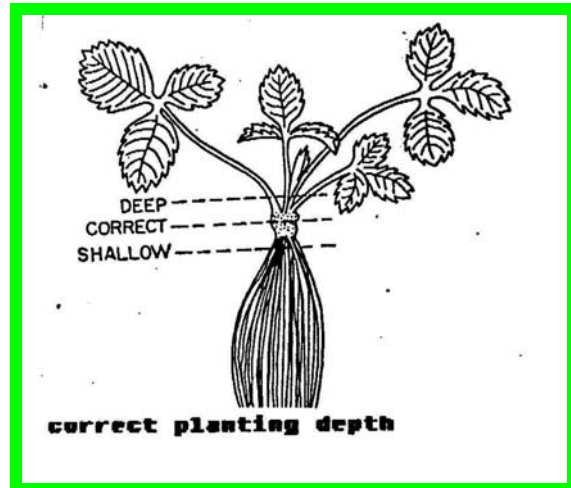
This management of Nitrogen is easiest done through the irrigation system, therefore if you block the varieties so that they can be treated separately with the irrigation then it is much easier.

For example, Earliglow and V-Star need nitrogen supplementation very early in the season, but Honeoye or Kent does not and if you get enough N on V-Star to keep production up it will be too much for Honeoye at this time. It is best to keep them separated.

### Soil Preparation

Be sure that the soil is well prepared so that you can get a good uniform planting and plants are not exposed or buried too deep. A narrow cultivator shovel or spike, mounted in front of the planter boot, is helpful in maintaining uniform planting depth.

Be sure to check planter adjustment so that pick up fingers are releasing the plants in a vertical position and not pulling them through horizontally. A crown that lies in on its side will bend and grow upward but this places a weak spot in the crown at this bend and a point of infection.



During the planting operation do not let the sun or wind dry out the strawberry roots prior to or during the planting operation.

Close the furrows left on each side of the plant by the transplanter press wheel. An all-terrain vehicle wheel or some other smooth rubber wheel, can be rolled over the top of the plant to press the furrows shut.

It is important that new planting are handled with the utmost importance. The healthier these plants are in the planting year will determine their future

performance. Some varieties such as Jewel if not established well will never perform and will thin out in the next year.

All new plantings should be under irrigation as soon as the plants are in the ground. Preferably after each days planting they should be watered in with ½ inch of water. The new planting should receive ¾ to 1 inch of water weekly throughout the entire season for the best performance.

### **Fertilization of New Plantings**

After the beds are settled and the planter tracks have filled in (after a good rain) apply the following mixture in a 10 inch band over the row. The plants should be dry when this application is applied so that fertilizer does not stick to plant material.

If you do not have an applicator that can apply a band application over the row in this manner it is advisable to make or purchase one. I will make recommendations throughout the season for applications that will require this type of an application.

**100 pounds per acre Ammonium Nitrate**  
**75 pounds per acre Sulfate of Potash Magnesia**  
**50 pounds per acre Potassium Nitrate**

This is 225 pounds per acre of material and it should be watered in as soon as possible.

To promote good new root growth an application of 2 – 3 pounds per acre of 20-20-20 with complete micro's will stimulate root growth and get the plants going faster. I have found that this application weekly through the irrigation system (foliar) develops an excellent root system and large crown. Plantings with this application perform the best in the first harvest.

As soon as there is 2 to 3 new leaves developed, an application of Zinc foliar is recommended to increase leaf development and leaf area.

Leaf size and leaf area has been shown on a number of different crops to be directly correlated to yield and performance of the crop. Zinc forms IAA in the plant the is responsible for leaf production. It is also important in maintaining fruit size and quality as it plays a role in cell division.

At this time begin to monitor N levels the same as you do the old Berries (Newsletter 4) and apply Urea foliar at 3–5 pounds of material through the irrigation. It is important to keep moisture levels and N levels high in the new berries in order to develop the crowns we want for the next seasons production.

In late June or early July when the vines begin to run an additional application of 225 pounds per acre of a mix made up of the following with Urea substituted for the Ammonium nitrate.

**100 pounds of Urea**  
**75 pounds of Sulfate of Potash magnesia**  
**50 pounds Potassium Nitrate**

Again this application should be applied in a band over the row when the plants are dry and watered in as soon as possible with another application of Zinc foliar.

About mid August apply another application of Zinc and take tissue samples and send to the lab to make sure everything is OK. Do not mix varieties or areas in the field that have different soil types.

Begin to watch for disease pressures, and particularly Powdery Mildew on young berries, which can be of particular importance to the development of the new berries.

Powdery mildew will first show up as an upward cupping of the new leaves and as it progresses the field will take on a silver sheen. Most researchers say that this disease will not cause economical losses and the control sprays are not as effective as we would like once the disease has been diagnosed, however if the plant is using energy to fight this disease it cannot perform to the level that we would expect.

Powdery Mildew also reduces leaf area and leaf efficiency, which will reduce the plants ability to produce photosynthates.

The following treatment is an inexpensive treatment that has shown to have good preventative results with powdery mildew.

**3 teaspoons per gallon of water of baking soda**

**2.5 tablespoons per gallon of water of Sunspray ultra fine spray oil**

I have been using this treatment for prevention of this disease and other disorders. It has shown to control some of the sucking insects as well as being inexpensive and will not harm beneficial insects or bees. This treatment should begin as soon as the plants new foliage gets 3-4 inches high and should be repeated every 2 weeks on sensitive varieties such as V-star.

In mid September a foliar application of Zinc and Boron at ¼ pound ai will help the buds that develop to over winter. This program I will be suggesting on all berry fields that you will be over wintering.

### **Grower Questions:**

**Q) You mentioned the use of Ca Chloride as a material to improve shelf life of fruit and help prevent disease? How much, how often and what materials are effective? Does this leave a residue? Does it effect flavour?**

**A) I have been using Ca Chloride as a Calcium source to improve quality and reduce disease pressure for over 15 years on a number of crops. It is not to replace fungicides but it does increase plants ability to fight disease.**

**This material may leave some residue on the leaf and fruit but it is easily washed off. It does not**

**reduce maturity or cause the fruit to taste funny on less you use too much and cause damage to the plant. The rates that I mentioned in the previous newsletter are what I have been using.**

**Again do not mix it with anything or use higher rates or it will cause problems.**

**There are other forms of Calcium on the market that also work and may be safer to use than straight CaCl.**

**I have not understood completely how this material works but have had a great number of growers using it and saying that it is very effective in improving quality and reducing Botrytis. Recently I have come across an article on other crops on why these calcium materials are working and I will be dedicating a complete newsletter vol 5 to this issue.**