



**A&L Canada Laboratories Small Fruit News
Letter Vol. 16 Sept 29, 2000**

This seasons events

This season was a difficult season on strawberries right from the start. The strawberry had early season wet conditions that reduced potassium uptake and this condition carried throughout the season. Low potassium levels reduce root growth and put an added strain on the plant. As the season continued disease pressure and insect pressure increased.

Estimated field losses from the strawberry growers that I have had contact with this year ranged from 10 – 50%. Even with a fungicide program in place and heavy applications of Calcium growers were faced with continued wet weather and rot.

A few years ago a study done by the USDA with Captan and Brovo rated the fungicide residue left after a rain. Their findings were that once a product dries on the leaf surface very little will wash off with rain. Only a small amount will wash off and protection will last about a week to 10 days, except for the strawberry flower that opens up about every 4 days and exposes unprotected tissue. This would also apply to orchard leaves, or a crop that has new leaves being developed every few days. In a crop such as this where we are constantly getting new growth we will require more frequent sprays.

In the middle of the summer with most crops protection is about 10 –14 days, in the spring with more frequent rainfall and rapid new growth protection will only be about 4 – 5 days.

Growers using Calcium sprays had some success but the constant rain in season was difficult to keep calcium on the fruit. Growers using a sprayer and rotating direction going through the

field had the greatest success with the calcium sprays.

I have had reports of strawberry fields turning deep red already this season. This is likely a continuation of low potassium in the field. Corrective treatment at this stage is not likely going to bring back this field. Check the crowns by digging them up and check the extent of the crown damage. If the crown still looks healthy and you have not already done so apply zinc and boron at this time. Make sure that you target this field for an early spring winter fertilizer program. If you have any further questions call me and we can discuss this further.

Fall Application of Zinc and Boron

If you have not already done so an application of zinc and boron at this time is recommended. This application of boron at $\frac{1}{4}$ ai. and zinc at label rate will help the crown build reserves for the winter and fortify the buds against winter injury.

Fall Fungicide Program

After the disease pressure that we had this season it may be a good idea to apply a Kocide treatment at this time. Some of you have experienced some leaf disease pressure this fall and although it has not created a problem a Kocide treatment at this time will kill and clean up some of the disease that will overwinter on the dead leaves.

Fall Herbicide Program

Getting ride of problem weed spots in the fall is a good program. One of the biggest weed problems that we have in strawberries is the dandelion. The fall is a good time to get ride of dandelions.

Dandelions are a problem because they like all the things that strawberries do and will become

giants once they are in the strawberry row. We need to get rid of them in the field and potential dandelion seed sources such as fence rows and road ways.

In the field most of you will remove them by a hoe in season. This is best done by first spot treating the dandelion with a hand sprayer, careful not to get the strawberry, and then later hoeing the plant out. This 24-D in the hand sprayer makes the root system easier to pull out.

Broadcast spraying the dandelion in the field should not be done until the strawberry is dormant as it can have an effect on the bud formation and the overwintering ability of the strawberry. As this is usually late in the season the efficiency of this treatment is not that good for weed control. It is best to get rid of the sources and handle dandelion in the field with a hoe as discussed.

Once the strawberry is dormant apply 1 pint per acre of 24-D amine. In grass areas and fence rows apply 3 pints per acre.

If weed pressure is at a minimum an application of Sinbar at 3-4 oz of Sinbar will get most of them. Sinbar should be washed off the plants with $\frac{1}{4}$ inch of water within 3 hours of application.

If Devrinol is to be used for control of volunteer cereals it should be applied just before applying mulch so that it is not exposed to light for long.

Mulching

Mulching a field early when it is dry is a good program, it not only gets the straw out in the field when the conditions are good but it makes sure that the ridges are protected early from those desiccating cold winds in the early winter before we have a chance to apply mulch. I believe from the areas of winter damage that I have seen that a lot of the damage that is done is done at this time when the ridge is exposed allowing the cold to penetrate the crown that may not be dormant.

However a word of caution, covering a strawberry up too soon can cause as much damage as too late. If you apply your mulch early rake it off the plants into the center of the

row until later. At a later date you can go through with smaller equipment and rake the straw up on top of the row.

If you have renovated the berries well and covered them with a half inch of dirt, as long as the sides of the ridges are covered with mulch it is not as critical to get the straw up on top of the ridge as soon.

Alternate Sources of Mulch Material

In years when wheat straw is scarce growers turn to other sources of straw. Soybean straw, barley, oat all have been used. Wheat straw is by far the best insulator and also provides better organic residue for soil organisms. Soybean straw has no insulating value and should never be used.