

April 14, 2000

Strawberry Information

NC Strawberry Weekly Update - Barclay Poling

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Harvest - is well underway in Coastal Plain, Sandhills and lower Piedmont counties. Initial quality on Chandler is rough. Markets are very strong though, and the public is being quite forgiving as even the fruit from California we have seen in several stores has been poorly shaped. We will work through this difficulty fairly fast as the next set of berries is well formed. Good price levels are being reported across the region - consumers really are ready for some relief from the crunchy, bland berries from the west coast! What is remarkable to me is to see how many growers have finally gotten their PYO price above \$1.00 per lb - goodness knows how badly we need it! I am working with industry members to document how significant the shortfall in yields is going to be this year. Keep very careful harvest records!

Botrytis - Strawberry blossoms are the main pathway by which Botrytis infects the fruit. Fruit rot is favored by moderate temperatures (60 to 77 F) and long periods of HIGH RELATIVE HUMIDITY and surface wetness, such as we've experienced this week, and into the weekend. In speaking with Dr. Frank Louws last evening it is his definite view that with recent cool temperatures and extended wetness that conditions are ripe for more botrytis infection.

Botrytis Control - Currently registered fungicides for gray mold control at this stage in the season include Captan, , Benlate, Topsin-M, Thiram, and Elevate (recently registered). Captan is a good broad spectrum product, provides protection against a wide range of diseases including gray mold, anthracnose fruit rot and some foliar diseases. It is now illegal to use Rovral "after first fruiting flower" and it can only be used for one application per season. Therefore, Rovral is effectively not available for fruit rot management but could be used for a fall or early spring spray where Botrytis crown rot may be a problem. Benlate cannot be used once a commercial operation has been turned into a "U-Pick" or "Pick-Your-Own" operation (this appears to be due to a skin rash that may develop for some customers). Topsin-M is a sister product of Benlate and has the same effective ingredient. Based on research Dr. Frank Louws has conducted, a significant proportion of the Botrytis population is resistant to Benlate/Topsin-M. Thiram is similar to Captan, a broad-spectrum protective fungicide. Elevate was recently registered and is very good for gray mold management but will not control any other disease problem.

Key principles to keep in mind when developing a fungicide spray program are: Captan is broad spectrum but not highly efficacious; Benlate or Topsin-M should always be tank-mixed with e.g. Captan and are likely to be of economic benefit for a maximum of 2 applications per season; Rovral is illegal to use during bloom and harvest; Elevate is good for gray mold control but cannot be used more than 2x in a row and no more than 6 lbs product per acre per season and an alternative product needs to be used for 2 applications before Elevate is used again. Frank also commented that if you have already made your two applications of Topsin-M, or Benlate, it is fine to apply Captan alone at this stage in rotation with Elevate. Again, ELEVATE IS NOT TO BE USED FOR MORE THAN TWO CONSECUTIVE APPLICATIONS.

Crown rot (*Phytophthora cactorum*) - Numerous growers are having problems with this relatively new but important disease problem. This disease is very different from red stele but is caused by a cousin pathogen. In fields where *Phytophthora* has been diagnosed, an application of Ridomil Gold according to label instructions has proven useful. In fields where the problem persists or has been recently diagnosed, Ridomil Gold applied during the initial spring growth phase should be helpful.

Other disease problems - I have also learned from Dr. Louws that a new form of bacterial angular leaf spot is showing up in his samples at the NCSU Plant Disease and Insect Clinic - seeing characteristic v-shaped lesions on the leaflet. It is causing stunted plants and is having a negative impact on yields.

Fertility- I am urging growers with very light crop loads (less than 25 marketable flowers/fruits at this stage) to consider a reduction in their normal N drip fertigation program by 1/2 or more, as it is my opinion that you are only forcing the development of larger leaflets and more runners! There is no way to add flowers at this stage in the season. The excess N will cause a very detectable watery flavor and fruit will be soft. Normally, one application of boron early is enough for the season (you get 1/8 lb of B from an injection of 5/8 lb solubor, and according to Dr. Miner, this is generally enough to get the B readings up to 45-50 ppm, and this should be adequate for the balance of the season).

Problems in new NC strawberry selection - we have stopped picking NC 93-05 at Clayton Central Crops. Apparently, it has undergone a mutation of some sort, according to the strawberry breeder Dr. James Ballington. Growers in the state with this trial selection should abandon it.

First Picking at Clayton was yesterday (April 13) - this report is delayed because we had our first harvest yesterday at Clayton Research Station. The picking was extremely rough on Chandler (50% cull rate), but Camarosa was VERY IMPRESSIVE IN SMOOTH FRUIT SHAPE AND EXCELLENT COLOR AND MUCH LOWER CULLAGE RATE THAN CHANDLER. We have discontinued all work with Sweet Charlie because of low yields. In general, our crop at the research station is way off this year in yield, and at this stage we anticipate no more than 1 lb marketable fruit per plant. We don't have a clear handle on what has caused this, but we are now looking at weather records from this past fall and winter vs. the 1998-1999 season when we had yields of 16 plus tons!

Thanks to Dr. Frank Louws for his contribution to this advisory!

E. Barclay Poling
Extension Small Fruit Specialist
NCCES

my mobile today (Friday - in Rockingham Co) is 919-418-9687

p.s. if you like these advisories, let me know asap. Your feedback is critically needed. Thanks.

Contributed by:

E. Barclay Poling, Director
SRSFC
Campus Box 7533, 1017 Main Campus Dr., Suite 1100
Raleigh, North Carolina 27695-7553

919.515.5365

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barclay_poling@ncsu.edu

The Southern Region Small Fruit Consortium

Campus Box 7533

1017 Main Campus Drive / Suite 1100

NCSU Centennial Campus

Raleigh, North Carolina 27695-7553

919.515.5365