

February 8, 2000

Strawberry Information

Strawberry Advisory (Vol. 2, No. 1)

BerryInfo (<http://www.smallfruits.org>)
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E. Barclay Poling
Strawberry and Muscadine Grape Extension Specialist
NC Cooperative Extension Service
Phone: 919-515-1195

1. Question on advancing the Chandler strawberry harvest with row covers in February:

Early to mid-February applications of row covers to strawberry plasticulture beds can advance the ripening date of Chandler, but our experience in the lower piedmont and coastal plain of North Carolina is that the crop is only advanced 5-7 days, not longer. Several growers have called in recent days asking about this possibility, and they had the impression that the covers could force the Chandler crop into a two-week earlier picking window.

As a number of growers have turned away from Sweet Charlie because of its significantly lower yields than Chandler, it would seem logical to use row covers on Chandler to force an earlier crop. It is possible to achieve some earliness, but it could come at a significant reduction in the overall quality of the covered Chandler crop. Plants that are covered from now until early March can become much more "stretched" and "leggy" from the late winter row cover application, and this will ultimately make picking more difficult. Fruit is often rougher because of poor pollination conditions under the heavy canopies and there is a real potential for greater losses to botrytis.

Finally, there is a strong possibility of encouraging greater spider mite pressure under the covers. A grower adopting this practice would have to have spider mites under excellent control prior to covering. It is also important to scout for aphids before applying the covers. In the end, the benefits of having 5 to 7 days of extra earliness in Chandler must be weighed against the plant stretching problem, greater difficulty in picking, and possibly reduced average fruit size as well. For these reasons I recommend that only a small fraction of the Chandler crop, perhaps as little as 10%, would receive the row cover application this week or next.

2. Status of strawberry crop after cold temperatures, snow and ice in January:

We are now making field visits to assess the extent of strawberry crop injury, if any, to the recent cold weather in North Carolina and surrounding states. At the research station near Raleigh, called Clayton Central Crops, we pulled our covers off yesterday (February 7). At this location we had more than 12 inches of snow on top of the covers that were applied way back on Friday, January 21, 2000. We never thought we would be leaving the covers on for 17 days! Nor did we have expectations of experiencing such low temperatures during this period (far worse than predicted in

mid-Jan). We had a low of 9 F on January 27, and then on January 28 the bottom dropped out when we established a record low of 1 F in Raleigh. In Kinston, NC (about 80 miles southeast of Raleigh), the low temperatures recorded were in the mid-teens (Jan. 28, 15 F min., Cunningham Research Station).

From our dissections of strawberry crowns and examination of internal tissues and flower parts, it would appear that there was relatively little damage. The plants do have a very flattened appearance from the snow and ice pack. But, luckily, we had the good fortune of a heavy snow cover in areas where temperatures dropped into the single digits. Anytime you have single digit temperatures without straw mulch, row cover, and/or snow protection, crown injury can be substantial. Though air temperatures reached 1 F in the Raleigh area on Jan 28, the temperature of the strawberry crown tissue beneath the heavy snow was closer to 30 F.

3. Sources of digital thermometers:

In preparing for a winter small fruit program in New Jersey (NJ Growers Association) back in January, I was able to update my information on sources for digital thermometers. These instruments are an essential tool for every strawberry grower during the frost/freeze protection period.

I have had the most experience with Omega Engineering, but Reddick Fumigants is carrying a digital thermometer set-up as well. Reddick number is 800-358-8837. Ask for Victor Lilley.

Reddick Fumigants - Thermal Coupler

Model RF-1A720

Accuracy: +/- 1% Range -100 to 212 degrees. C or F selectable

3 interchangeable 15ft. Color-coded sensors; 3 individual sensor temperature plus A-B differentials.

Includes 9V battery.

Dropproof molded case, and instructions.

Cost: \$182.00

Omega Engineering - Digital Thermometer

Omega Engineering - 1-800-826-6342

Hand Held digital thermometer - model HH-21 \$159

Thermocouple plugs - Type T or K \$1.75 ea

Insulated wire - SNP T or M

50' wire \$38

100' wire \$67

I would recommend buying 100 ft of wire and 10 of the thermocouple jacks (they call plugs). The salespeople at Omega can pretty well walk you through it.

Hurry up and order this equipment, as you may need it sooner than you realize!

4. Next week's advisory - We'll be back next week with a roundup on new pest management tools for the strawberry season ahead. I also look forward to preparing a report on the North American Farmers' Direct Marketing Association Conference and the Ohio Fruit and Vegetable Growers' meeting that I will be attending, Feb. 10-13, 2000 (Cincinnati, OH). I have obtained a copy of the Midwest Small Fruit pest Management Handbook, Bulletin 861

5. NC Ag Chem Guide on the Web - Strawberries

a) Strawberry Disease Control - <http://ipmwww.ncsu.edu/agchem/chptr7/712..PDF>

b) Strawberry Insect Control - <http://ipmwww.ncsu.edu/agchem/chptr7/714.PDF>

The use of brand names and any mention of commercial products or services in this newsletter does not imply endorsement by the NC Cooperative Extension Service nor discrimination against products or services not mentioned.

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