

To Horticulture Agents with Nursery Responsibilities
From Ted Bilderback, Horticultural Science

An update on nursery crops: I continue to get calls even today 4/ 24/07 regarding freeze injury Easter Weekend, April 6-9. As I think you are aware, the Farm Service Agency (USDA) estimated a \$58 million freeze damage loss in nursery crops in North Carolina.

At first I was surprised at this figure because I had not seen a lot of damage and not that many growers had called. But now I know from grower calls that we had damage as far east in NC as Pender County, where hosta was damaged even in cold protection structures. In Johnston County just south of Raleigh (with 55 nurseries), plant flowers, leaves and new shoots were damaged on many field-grown crops and any container crops not protected

The damage was extensive apparently due to the fact that we had several days in the 80's, above 85 F in some areas. We also have been somewhat dry so if un-acclimated crops (particularly field nursery crops) were exposed to freezing temperature and also had low turgor due to droughty conditions, cells in leaves and stems were even more prone to rupture.

I talked to a grower in the Greensboro -- Guilford County area that had roses and azaleas damaged inside of winter protection hoops.

John Allen at Shiloh Nursery, Iredell County, northwest of Winston-Salem and President of our North Carolina Nursery Landscape Association, says he has crape myrtles dead to the ground. He also lost foliage on most crops in the field.

A side note to this problem is that any field stock that would have been dug and sold this spring and summer that was defoliated, likely can not be dug at least until this fall. It will take all the energy a plant has to initiate a new flush and severing roots would reduce the reserves needed for new leaves and almost certainly reduce success growing new roots and leaves.

I also talked to a field nursery grower in North Hampton County who actually may just get an extended digging season from the Easter weekend freeze. Most of his trees had not broken bud (his nursery is close to the Virginia state line and the weather has been cooler). Even though some terminal buds were damaged, secondary shoots will develop soon. He can still dig and with a little pruning, quality will not be affected.

This evening one of our regional nursery associations (Johnston County Nursery Association) with members from most of Eastern NC has organized a panel as the evening program to discuss freeze damage sustained, documentation of damage, reporting damage to FSA and local extension centers and any possible steps to encourage assistance from state or federal agencies and/or governments that can be provided.

The Raleigh News and Observer today had an associated article "Cold spell changes crop research." The article reviewed some of the damage estimates and discussed how a graduate student's research studies in our department [Department of Horticultural Science, NCSU] has been refocused to make the best out of having no crop yield data from a peach orchard. The point is, the issue is still very much in growers' minds.

I sent the note below in response to emails from Cliff Ruth and Rett Davis last week [4.19.07].

I still believe that my comments are appropriate but as I commented above, I have also heard about damage from growers who **did** protect crops making the freeze damage even more insidious.

Below is last week's email with a last line update. I am not sure what we as extension folks can offer on a call to action. The situation as I see it follows:

Many nursery crops across the state were damaged, losing flowers and new shoot growth. In most cases growers can shear/prune, apply fungicides and CRF's and wait for the next flush, which will be full and compact. Growers/agents should take time to knock a few plants out of pots to check the roots. If the roots are good, a full CRF application is warranted, if the root system looks poor or has winter kill damage, a 1/2 rate of CRF might be better followed by another 1/2 in June.

Unfortunately, missing the retail sales window on crops like roses and azaleas is similar to the value of poinsettias on December 26, and for all crops missing spring marketing opportunity, sales and profit is never caught up. So we did have losses, even though we did not lose the whole year as apple, peach, blueberry growers did. I think this consideration and just putting a flat % to the value of the industry is where the FSA numbers came from.

The cold weather was predicted and temperatures were really not a surprise. Nor was it a surprise that plants would get damaged if they were not protected. Growers that did not just stop and pay attention, then re-protect crops, **lost**. Plants were pushing, many nurseries in Piedmont and Eastern NC had uncovered with multiple days at 85 F and above. In most cases, all the plants were sold and ready to ship; the money was in the bank but Mother Nature robbed the bank!

It's not fun, but I think the only thing we as extension agents can do is go visit growers, listen to them, help where you can.

This week's addendum to Cooperative Extension agents' opportunities is: Helping where you can includes documenting damage, dating photos taken of the damage, keeping a record at the county Extension center and assisting the grower in reporting the damage to the local FSA office.

Ted E. Bilderback
Professor and Extension Nursery Specialist
Department of Horticultural Science
Box 7609
North Carolina State University
Raleigh, NC 27695-7609
Direct Phone 919-515-1201
FAX : 919-515-7747
e-mail: Ted_Bilderback@ncsu.edu
WebPage <http://www.ces.ncsu.edu/depts/hort/nursery/>