

Do You Remember When?

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OK, quiz time people! Who remembers the night of May 11th this past spring? No one? It was a Monday if that helps. That day was followed by a Tuesday. Still not ringing a bell? Well, the night of May 11th going into May 12th was when we had that hard freeze with temperatures going down into the low 20's. Now does that sound familiar? Combined with the prior weeks with good growing conditions, the very cold temperatures caused some immediate damage to trees and shrubs, damage that in some cases is still visible today. But there was other damage that's just becoming noticeable as we get ready for fall harvests.



The day after that hard freeze a couple of us were walking through the nursery looking for damage. Of special concern were fruit trees as some of them were flowering. Speaking of fruit trees, there is someone in town I turn to when I get a fruit tree question I can't immediately answer. We'll call him Carl, which is convenient as his name is, in fact, Carl. Carl's experience growing many different kinds and varieties of fruit trees in Pierre is, in my opinion, unequalled.

So as we were examining the fruit trees, up walked Carl! He had specifically come to see how our trees fared so we exchanged notes on what was blooming, what wasn't. How some trees, apricots and bush cherries specifically, seemed to have suffered the worst while others hadn't seemingly been affected by the cold. Of specific note, Carl mentioned pears. It seemed if the flower bud hadn't opened, or was just opening, it froze and had already fallen off that morning. Carl also noted that in some cases if the flower had already been pollinated and the petals had already dropped, the immature fruit appeared to have not frozen and stayed on the tree.

We didn't know what to think about this and as the season progressed, some of our attention turned to responding to concerns about the obviously damaged limbs of trees. This damage, in and of itself, is a bit interesting. If we had experienced a cold spring up to that May 11th night, probably no damage would've occurred. But unfortunately we had enough warm and wet weeks with enough daylight that many plants were triggered to start growing and budding out. A lot of moisture was being carried to the growing points, which are at the ends of branches and twigs. Then the sudden and deep cold night froze that water – frozen water expands, the expanding ice broke through cell walls, which caused the damage and death of twigs, limbs, and in some cases the entire plant. All that can be done after that is wait to see what comes back and eventually trim out the dead tissue.

But back to the pears. During Carl's visit our collective thought was perhaps the immature fruit was just hard enough or surrounded by just enough other tissue to prevent damage. The fruit stayed on the tree and started growing and not much thought was given to that hard freeze. Until this past week when someone asked about a strange ring around their maturing pears. The ring wasn't on all pears on all trees, but appeared to be in small clusters scattered throughout the canopy. As it turns out the immature fruit didn't escape unscathed and in some cases the fruit's exposed surface froze thereby causing scarring. As the fruit grew bigger, the scar manifested itself as a brownish ring encircling the midsections with healthy skin tissue both above and below. This is called a frost ring.

So 116 days since the hard freeze, pears with frost rings are being noticed. The fruit is safe to eat although they look a little weird. Another reminder of the cold night of May 11th.

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