

Blackberry and Raspberry Freeze Assessment PART I and II
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PART I

The primary damage we have seen has been to the flower buds of blackberries. Images are included below to help diagnose this type of damage.

Flower Buds. Image below is a fruiting lateral with 2 buds sliced open longitudinally. Buds are at various stages of development, the largest (king) is at the tip of the lateral. Count the number of green buds/total buds and you will have an estimate of remaining crop. There are usually 5-8 flower buds/lateral. Figure 1. (Photo courtesy R. Galloway).



Slice each bud lengthwise and determine if center (**receptacle**) is black. **Anthers** can still be green, but they will not produce fruit. Figure 2.



PART II. Assessment : Two weeks after the Easter weekend freeze

I have visited several blackberry and raspberry fields over the past 2 weeks. Here are my observations.

Raspberry. Buds of floricanes fruiting raspberries buds had not emerged and they appear to be OK at this time. Canes of primocane fruiting types that had started to emerge were killed to the ground. They are beginning to send out a new flush of primocanes. Fruit ripening period may be delayed.

Blackberry. Freeze damage has been significant, 99.9% of the fruiting buds on the primary laterals of blackberries were killed (figs 1 and 2). There did not appear to be damage to the canes or root system, so the plants are still alive and the canes can still support a crop. Secondary buds are developing on the blackberry plants and have the potential to produce crop. Yields will likely be lower and later than normal. Primocanes that had emerged were damaged, but new ones are emerging.

Secondary Buds of Blackberries.

The variety Chester blackberry showing several **dead primary laterals (racemes)** in a field in western NC (Figure 3). (Note that fruit buds had not emerged as was seen in figs 1 and 2). This picture was taken on 4/24/07, 16 days after the Easter weekend freeze. **Secondary buds** have begun to emerge. These buds are located at the base of the dead primary bud. They have the potential to produce fruit. Figure 3.



Figure 4. Here is a close-up image of a **dead primary lateral** and the newly emerging secondary lateral (raceme) from the secondary bud. Each of these **secondary lateral buds (racemes)** will have some flower buds. The number of flower buds in these laterals is unknown at this time. You should be looking at them closely in the next week – 10 days to determine how many fruit could be produced. These secondary buds are anywhere from ¼” to 1 or more inches long at this time.



****More on cane management and spray programs will be coming once we determine how much fruit could be produced on those secondary buds. ****