Black Currant Update - 2011-12

Black currants have done well at CREC, yet they have not had consistent yields. The weather and pollination during bloom seems to be the primary limiting factor. Growth seems to be brisk and prolific in the spring and there is almost always a good selection of canes to prune out. The soil pH may be a bit high (pH 7.5-8) for currants, but iron chlorosis is not too prevalent and we do add a foliar supplement.

The 2011 growing season was abnormally cool and moist with regular rainfall; however, there was good weather during blossom this year and fruit production was good. 'Titania', though, did not have as good of a crop as could have been expected. Strangely, we did not see much powdery mildew; this may have been due to regular rain. White pine blister rust (WPBR) infestation was very high and started developing on both leaves and fruit before picking. WPBR is normally evident a week or two after harvest is complete. Even 'Titania' and red and white currants had a few rust pustules here and there.

We removed 'Ben Sarek' from the variety trial and 'Consort' from the demonstration planting in 2011. 'Ben Sarek' is supposed to be great for u-pick and have consistent crops of big fruit – which it does. But the fruit sunburns and it is very sour. 'Consort' is one of the WPBR varieties developed at University of Minnesota, but the fruit has been bitter each year at harvest. (Visitors with this selection say their berries are fine…) These plants were replaced with 'Blackcomb' (based on 'Titania' with bigger berries and up to 50% more productive) and 'Whistler' (based on 'Ben Tirran'; also 50% more fruit than 'Titania') from McGinnis Berry Crops in BC. 'Blackcomb' is replacing 'Titania' in US commercial plantings.

I also replanted some 'Swedish Black' plants with new rooted cuttings from 'straighter' plants. 'Swedish Black' is pretty contorted with canes growing twisted and branches growing downward. It is very hard to prune this variety and especially hard to pick it. I may remove the entire selection from the variety trial in the future, though the fruit is the sweetest.

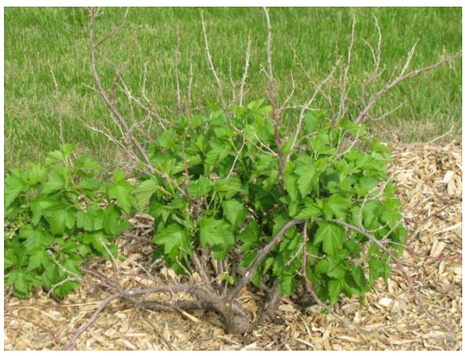
'Swedish Black': An Unpruned Mess

Pruned to upright branches (Harsh!)

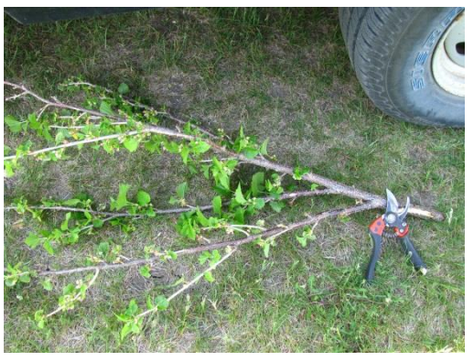
That's a well-behaved 'Titania' in the background.

2012 began very early, with warm temperatures throughout March. It then froze April 9-11 with two nights getting down to 16 and 18°F. At the time, black currant buds were pushed out ¼ to ½ inch, depending on the variety, and some tiny flower buds could be seen within the furl. Several weeks after this, it was apparent that major damage had been inflicted on the plants. Entire canes were damaged so that the cambium died. For some plants, it was a few partial canes but for others, multiple canes were dead or appeared stunted. After giving the plants and buds a month to show real injury, canes were pruned out on May 18th while the damaged parts were still moist and the new growth was still small enough to let us see through it. *Note: Red and white currants were not injured and had huge crops.*

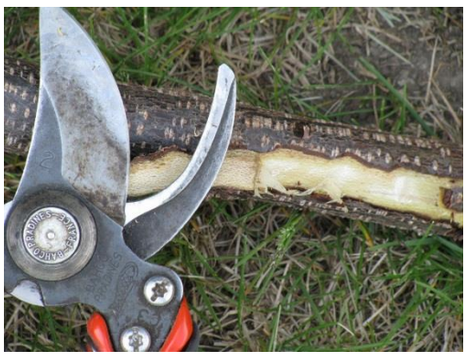
Freeze damage to different varieties.



'Swedish Black' regrowth May 18th.



A cane with 'slow' buds and growth as compared to its companions.



The underlying cambium is grey instead of bright green.

Fruit production was very limited this year. 'Swedish Black' had no measurable crop, while 'Titania' did the best. It was also the variety that had some of the least developed buds during the freeze. 'Minaj Smyriou' and 'Ben Lomand' had excellent per-plant production.

Name	No. of Plants	Freeze damage 2012	Harvest Weight (pounds)		Ave. Weight of 10 berries (g)		Comments:
			2011	2012	2011	2012	
Black Down WF	5	1.0	11.6	5.6	6.5	9.6	Sweeter; 2 kinds of plants.
Black Down OGW	11	2.4	37.8	13.0	9.2	11.1	
Hilltop Baldwin	16	2.2	42.4	2.9	7.2	9.4	Big, tender, sweet berries. Variable phenotype.
Titania	15	1.0	45.7	58.7	8.3	11.8	Sweet-tart. Very nice flavor.
Swedish Black	16	1.7	25.2	0.5	8.7	11.9	Mildest flavor, sweet.
Ben Lomand	4	0.5	5.9	13.0	8.3	11.1	V nice flavor. V good.
Champion	4	1.0	8.6	3.6	5.0	7.2	More resinous, strong flavor.
Minaj Smyriou	4	0.5	8.7	18.3	8.3	12.3	A little bland w/ mealy texture.

Freeze damage: 0= damage not noticeable 3= entire plant severely affected. Canes are generally dead.

Powdery Mildew Control Project: Powdery mildew affected many shoot ends on currants in 2009 and especially in 2010. Research lead to three organic-type control products to try in the variety trial: **Row 1(west)** – Control (no spray); **Row 2** – OxiDate (1% Dilution); **Row 3** – MilStop (1.25 lb / 100 gal); and **Row 4 (east)** – Actinovate (3-12 oz/acre in 50-100 gal H_2O). Each of these products was prepared as per the label and applied at one-week intervals.

Results: There are no results to report. There was almost no powdery mildew infection of black or red currants during the trial period despite pretty heavy disease the prior two years. 2011 was a cooler, wet year while 2011 was very dry with temperatures starting warm and then returning to average.