Performance of the Pearl Cherries in Massachusetts

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The 'Pearl' series of sweet cherry are recent introductions by International Plant Management (www.varietymanagement.com). They include Black Pearl, Burgundy Pearl, Ebony Pearl, and Radiance Pearl. The Pearl cherries originated with Bob Andersen's former stone fruit breeding program at Cornell University and were partially selected for adaptability when grown in the humid Northeast.

In 2003, a sweet cherry variety evaluation trial was planted at the that included eleven NY-numbered selections from the Andersen breeding program on behalf of IPM at the UMass Cold Spring Orchard in Belchertown, MA. Although NY numbered selections at the time, it turns out that the planting included Ebony Pearl (NY 32), Burgundy Pearl (NY 38L), and Black Pearl (NY 8139) (three trees of each variety). These cherry trees are on Gisela 6 rootstock with between-tree spacing of six feet. The trees have grown well and have been quite manageable at this spacing on moderate-fertility soil.

Once these Pearl cherries started flowering and fruiting in 2005, annual information collected included: time of bloom; crop load; fruit size, color, sugar, eating quality, and resistance to cracking. A summary of these characteristics and observation on overall suitability for our climate follows.

Average Bloom Date

All three Pearl cherries bloom early. Bloom typically is during the latter part of the last week in April. Burgundy Pearl is slightly ahead of Black Pearl which is slightly ahead of Ebony Pearl, but they all overlap. Depending on the timing of frost, this early bloom may be good or bad; however, in general, early blooming cherries are more likely to be frosted. Frost occurred during bloom in 2008 resulting in few cherries; however, they have cropped heavily in all years without frost.

Cropping

In general, the Pearl cherries are heavy bloomers and croppers. Annual yields for Black Pearl and Burgundy Pearl were described as heavy to very heavy. Ebony Pearl yields were medium-heavy. Fruit size suffers with heavy yields, so pruning to promote vigorous re-growth will be important to help manage crop

Table 1. Fruit characteristics (average of years 2005-2011) of Black Pearl, Burgundy Pearl, and Ebony Pearl sweet cherries at UMass Cold Spring Orchard, Belchertown, MA.

Cherry	Harvest date	Fruit shape	Stem length	Skin color	Average fruit weight (g)	Flesh color	Soluble solids (%)
Black Pearl	July 3	oblate- heart	medium-long	dark red	8.9	red	13.1
Burgundy Pearl	June 30	oblate- heart	short-medium	red	9.1	orange-red	12.8
Ebony Pearl	June 28	oblate- heart	medium-long	red	10.0	orange	13.6

Table 2. Black Pearl, Burgundy Pearl, and Ebony Pearl trees on Gisela 6 rootstock in bloom, May 6, 2011, UMass Cold Spring Orchard, Belchertown, MA.

Black Pearl	Burgundy Pearl	Ebony Pearl
early to mid-season bloom	early-season bloom	mid-season bloom

load on these cherries (see giselacherry.com for pruning instructions).

Fruit Quality

Table 1 is a summary of 6-7 years of the Pearl cherries fruit characteristics.

Average harvest date. Black Pearl was picked later than both Burgundy and Ebony Pearl. But, because of cracking (and birds), both Burgundy and Ebony Pearl were likely picked too early in most years. In fact, information from International Plant Management suggests Black Pearl is harvested about a week earlier than the other two. Best fruit quality harvest dates in Massachusetts for these three cherries might now be surmised to be: Black Pearl – July 1 and Burgundy and Ebony Pearl – July 7. Thus, the first week in July would be the 'target' harvest week for the Pearl cherries.

Fruit shape. All cherries are described to have an acceptable, oblate-heart fruit shape. Thus, they are somewhat round-flat in appearance, but still classic-enough cherry shape.

Stem length. Burgundy Pearl has a shorter stem than the other two Pearl cherries.

Skin color. Black Pearl exhibited the darkest red skin color of the Pearl cherries. Both Ebony and Burgundy Pearl were a more 'translucent' red color in appearance, which was very attractive.

Fruit weight. All Pearl cherries were smaller than the target fruit weight of 10 g. Heavy crop loads and too-early harvest contributed to the smallish fruit size. Careful crop load management and delaying harvest should result in larger fruit size. Still, these are not 'big' cherries. They are average but adequate size.

Flesh color. Black Pearl had the darkest flesh and was characterized as being 'red.' Both Burgundy and Ebony Pearl were orange-red in flesh color.

Soluble solids. The sugar content should have been better. Again, too early harvest is not conducive to good sugars in the cherries. Fruit have to hang longer to get good cherry sweetness. Soluble solids of sweet cherries should be in the high teens at harvest.

Resistance to Cracking

Crack-resistance was somewhat disappointing. Although literature from International Plant Management suggests that Burgundy and Ebony Pearl have 'excellent' resistance to cracking, and Black Pearl has 'low' cracking, all three cherries cracked and split in wet years here in Massachusetts. Drier years were better, with Black Pearl pulling through with a little less cracking than Burgundy and Ebony Pearl. The latter two cherries were often picked too early as heavy cracking was observed. This observation only heightens the fact that *successful and profitable sweet cherry growing in Massachusetts requires rain covers!*

Conclusion

Although I was disappointed in the amount of cracking over the years, the Pearl cherries are no worse and likely somewhat better than other cherries that we might grow. If you think you can grow them without

Table 3. Black Pearl, Burgundy Pearl, and Ebony fruit, UMass Cold Spring Orchard, Belchertown, MA.

Black Pearl	Burgundy Pearl	Ebony Pearl

covers, think again – in most years they will crack. They are certainly highly productive, and will require the right kind of pruning to achieve adequate fruit size. Because they are relatively early cherries, they are attractive to birds (particularly cedar waxwings).

I have been most successful in harvesting a good crop of Black Pearl over the years, and therefore, declare it the best of the three. Personal correspondence with International Plant Management suggests "Burgundy Pearl has the best flavor, Ebony Pearl is the nicest cherry in its season, and Black Pearl will be the big winner of the three." All three Pearl cherries are worth consideration and are available from major nurseries and Summit Tree Sales (summittreesales.com).