

## Haskap Pollinator Breeding in 2009

By Dr. Bob Bors

About 500 seedlings planted in 2006 and 3000 seedlings from 2007 were evaluated in the field for productivity and flavour. The 2006 plantings had been growing in pots for a few years before field planting. Most of these were from open pollinated seeds from the Oregon Program. The 2007 plants were from controlled crosses from our own breeding program.

The selection goal was to find a higher quality pollinator for our recently released varieties 'Borealis' and 'Tundra'. These new varieties are too closely related and do not pollinate each other very well. Fruit growers and homeowners have been using various Haskap varieties as pollinators which do not have very good quality. 'Berry Blue' (not from our program) which has often been sold as a pollinator has the advantage of growing fast and producing many flowers. Sadly the fruit size of Berry Blue is just as discouraging as its flavour (figure 1). We had done pollination studies several years ago showing that 'Berry Blue' would pollinate our varieties.



Figure 1: 'Berry Blue' has often been used as a pollinator because the plant will grow fast and produce many flowers. But its fruit size, flavour and susceptibility to leaf diseases leave much to be desired. In contrast it is shown next to one of our test selections.

The best 20 seedling that had come into bearing were identified in the field and samples were taken for further evaluations. Figure 4 shows a representative berry from each selection. While major harvesting was done in early July, some fruit was left on a couple branches of each promising selection to allow further evaluations during the growing season. Eventually 6 selections were chosen as 'Advanced Selections'. Four of these were successfully put into tissue culture to evaluate ease of propagation. The other 2 were not successfully forced in the fall so we did not have fresh shoots to work with. We will try again later in the winter or wait until spring. In 2010, these 6 will each be cross pollinated with 'Borealis' and 'Tundra' to check for pollen compatibility, and it will be observed if they bloom at a similar time. We will also sample them for fruit quality. Considering pollination, bloom timing, propagation data and fruit quality,

we will decide which should be released as a new pollinator for our existing varieties. It should be noted that some of these new selections had similar or superior flavour to ‘Borealis’ and ‘Tundra’ and all of them seemed to be faster growing.

Most likely, this future pollinator variety will be recommended for home gardeners and as a pollinator for commercial growers. Since firmness and durability is very rare in Haskap, it is likely that more testing and more seedlings will need to be evaluated before a ‘commercial variety for production’ will be released. Each year for the next 4 years about 4000 or 5000 new seedlings from controlled crosses will come into bearing, so it is likely that a suitable commercial quality pollinator will be chosen in the years ahead.



**Figure 2: Promising selections of Haskap berries just beginning to bear fruit in 2009. Each berry is from a different plant that was judged to have superior productivity and flavour.**