U of S Haskap Day 2011

by Bernis Ingvaldson, www.haskapusa.com

On Friday, July 8, 2011, an eager crew of haskap enthusiasts assembled at the University of Saskatchewan Horticulture Research Station in Saskatoon, SK. Starting off with coffee and donuts, experienced growers and researchers mingled with those coming to see haskap for the first time. At least five provinces from Canada were represented, along with England and the USA. One interested family flew up from Minnesota just for Haskap Days, even bringing the grandparents along! Following registration, Dr. Bob warmly welcomed the group with an invitation to jump aboard the hay wagons for a tour of the haskap plots.

Dr. Bob led the tour, sharing tidbits of information along the way and pointing out interesting characteristics of different plants. First on the stop was a visit to the Borealis row, where we saw how well the succulent leaves hide the berries.

We were encouraged to sample as many berries as we wanted, the only condition being not to eat all the berries off of any particularly good plant! We were encouraged to tag our favorite selections with plastic ribbon.

The University is not sure exactly how many thousand haskap plants it currently has, but selections originating from Russia, Japan, Kuril Islands, and Canada are interspersed in various plots with both open and controlled pollination. Most of the fruit is very nice in flavor, but the characteristics considered for future selections involve a combination of berry flavor and size, productivity and appearance of plant, as well as disease resistance. The next release from the U of S, hopefully available in 2012, will be the attractive "Honeybee" haskap. This will be a suitable pollinizer for Borealis and Tundra, as well as having a similar stature and leaf shape. It tends to hold onto its medium sized oblong fruit which has a pleasant flavor.

The Joanna 3 Black Current Harvester from Poland quickly ran through a line of haskap plants. While this row was a little short in stature, the machine still managed to grab some of the branches, shake the berries onto a conveyer belt, and impress the crowd with a nice bucket of bright blue berries at the end.

Selecting berries that do not bleed when picked is important for machine harvesting and sorting on the conveyer belt.

For those who do not have the many thousands of dollars for a machine harvester, a trip to the local recreational store for a stiff plastic paddling pool may be the answer! Some selections drop their berries very easily when shaken into the pool, but remember there is a lot of leaf and twig debris to deal with afterwards. Handpicking is slower, but gentler and cleaner.

Dr. Bob pointed out plants with controlled pollination. A mesh fabric protects the flowers from insects and pollination is manually performed using plastic knitting needles with pollen from the desired parent plant.

For short videos on the Joanna 3 harvester in action, see youtu.be/QUC5OquV66E and youtu.be/2qhl0iKAgc0. The company website is weremczukagro.pl

Additional Notes from U of S Haskap Day 2011

- Following a lunch of pizza and watermelon back at the research station garage, several presenters shared about their experiences. James Dawson, a PhD student, talked about his neutraceutical research project. This summer he is collecting fruit and leaf samples from Tundra and Borealis plants and four numbered varieties. He sampled fruit over 42 days (six weeks), starting with day zero when the flower was fertilized. Cell division occurs during days 0 – 23. High respiration occurs during this phase, i.e. plant uses lots of energy to build cells. This may be the most crucial phase for watering haskap. Cell expansion occurs during days 24 – 42, when the cells get filled with water. The berry is green and very firm until day 23. Almost overnight it turns blue on the outside, but needs about three more weeks for the inside to turn dark blue indicating it is fully ripe. During the winter, James will analyze the samples for such things as weight loss, polyphenols, anthocyanins, acidity, and brix level. The experiments need to be repeated next year in order for the research to be accepted for publication. Other studies are listed at: http://ediblebluehoneysuckle.wordpress.com/nutraceutical-benefits/specific-studies
- Hamish Graham showed a video of planting haskap at his 75-acre Heavenly Blue Honeysuckle Orchard in northern Saskatchewan, and described the various methods they had tried. What works best for them is to lay down black plastic mulch along the rows with a machine that punches holes at the planting intervals. Then they bring out a water truck and pressure hose. 1-2 gallons of water is thrust through the holes at about 65 psi, making room for the plants to be inserted by hand into the damp ground. They planted about 200/hour this way. Previously they planted 1200 plants/hour using the tree-planting machine, but it took 3 days to get them hydrated due to the heavy soil. He is not getting as much pollinization from the Tundra as the Borealis. They may need to be older to show more productivity. Borealis grows quicker than Tundra.
- Discussion regarding fertilization revealed that most prairie soil is considered adequately fertile for haskap. One grower tested dry fertilizer scattered around a few plants and it burned any bark that it touched! Others use aged manure successfully.
- Spring flooding at the U of S this year affected some of the haskap plants that stood in water for about two months, turning the leaves yellow and killing a few. The wild Canadian selections in the standing water survived and remained a healthy green color. The Canadian plants have very small, pleasant tasting berries. The leaves have a red tinge in the early spring, which indicate high anti-oxidant levels. Future breeding will aim to increase the berry size.
- Saskatoon has a high elevation, high UV light, extremely long daylight hours, high flux in day/night temps, all of which are conducive to high anti-oxidant production.
- If you dry haskap with heat the wax coating melts and they lose their color, but dry with sunlight and they stay dark. No pectin is needed to make jam. Don't know if berries ripen off the vine. Borealis is the last to ripen. Berry Blue™ drops some of its first berries at the start, but the rest hang on and get better tasting as they ripen.

Summary:

Varieties ‘around the corner’ are likely to grow faster and bushes will be larger with potentially greater yield. Berry size might also increase, but likely flavor will be similar and of excellent quality. We’d also like to develop some late ripening and southern adapted Haskap. My advice is to learn to grow what we have now, but leave room for the future varieties.

Dr. Bob Bors, http://www.fruit.usask.ca/Documents/IndigoHaskap2011.pdf