Haskaps and Honeyberries

Danny L. Barney, Ph.D.

Haskaps and honeyberries are related and are found in the honeysuckle family (Caprifoliaceae). Both belong to genus *Lonicera* and species *caerulea*, but are divided into different subspecies. Because haskap and honeyberry are common names, they can be and are sometimes applied to the same plants and there is confusion in the United States over naming.

In general, honeyberry refers to *Lonicera caerulea* L. subspecies *kamtshatica*, *edulis*, *boczkarnikovae*, and, to lesser degree, *altaica*. Haskap is a name used in Japan and refers to *Lonicera caerulea* subspecies *emphylocalyx*. These plants are native to northern regions of Eurasia and North America.

Haskaps and honeyberries root easily from dormant stem cuttings, grow quickly, and bear fruit one to two yeas after sowing or rooting. The seeds germinate well without stratification, scarification, or other treatment. The plants are noted for their cold hardiness and the flowers are also quite frost resistant, reportedly tolerating temperatures near 18°F. Cross pollination by bees is required for abundant fruit set.

All of these subspecies produce edible, elongated, spindle-shaped blue fruits. The flavor is variable, ranging from sour to flat to relatively sweet and occasionally with a unique, spicy, aromatic characteristic somewhat similar to western huckleberries. Berry size is variable, ranging from less than half a gram to nearly two grams. These fruits contain high concentrations of antioxidants and vitamin C. The dark red pigments are stable in the juice, a big plus for processors. The fruits tend to be soft and begin ripening early in the growing season with strawberries. Some selections, however, ripen late and hold their fruits until late summer.

The fruits have long been harvested for home and commercial use in China, Russia, and Japan. During the late 1900s, fruit breeders in Russia and Japan produced cultivated varieties for commercial fruit production.

The fruits are variable in form. Some show typical honeysuckle-type conjoined twin berries, but held together with a flap of skin. In others, the fruitlets are completely enclosed in a blue sack, essentially forming a single berry. The skins can be smooth or lumpy and open or closed at the blossom end.

Plant shapes range from vines that need support to rounded mounds to upright bushes. In cultivation, plant heights of two to five feet are common for upright selections. For mounded, ornamental selections, allow at least a six-foot

diameter area for the plant to spread in. For hand-picked fruit, space plants four to five feet apart in rows eight to ten feet apart. Machine picked bushes will probably be spaced three to three and-a-half feet apart.

During the 1920s, seeds of *L. caerulea* subspecies *pallassi* were introduced from Russia into Canada. This subspecies has long been used as an ornamental shrub in Russia, but the fruits are small and generally poor quality. From this foundation, the varieties 'Georges Bugnet' and 'Julia Bugnet' were developed at the Agricultural Research Station in Beaver Lodge, Alberta. With the exception of a few Russian cultivars recently introduced into the United States, most of the edible-fruited honeysuckle plants available from North American nurseries derive from the Canadian selections. These plants and those from Russia are commonly called honeyberries.

In collaboration with Dr. Maxine Thompson, Professor Emeritus at Oregon State University, the University of Idaho is helping to develop improved varieties and production methods for *Lonicera caerulea*. In our breeding and evaluation trials in western Oregon and northern Idaho, we have found that germplasm from Siberia and northern China has not performed particularly well. Plants from these regions have a very short dormancy, bloom very early, lose their leaves early in fall, produce flowers in fall, and suffer from winter die-back in our climates.

Plants derived from Hokkaido, Japan and the Kurile Islands (an archipelago stretching between Japan and the Kamchatka Peninsula of Russia) have proven superior in plant performance and fruit production and quality in our trials. These plants represent the subspecies emphylocalyx. and form the core of our breeding efforts. To distinguish them from the Russian-derived subspecies commonly called honeyberries, Dr. Thompson has elected to refer to plants from our program as haskaps.