

'Honey Bee' Description

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'Honey Bee' was selected to be a pollinator for 'Borealis', 'Tundra' and the 'Indigo' series. (I'll call them 'BTI') It blooms at the same time and has given good fruit set when used in controlled crosses with them. It is very fast growing, productive and starts fruiting at an early age.



Figure 1. 'Honey Bee' bush showing productive branches,

Its fruits are cylindrical and look more like its Russian parent (see figure 1); perhaps like the shape of a bee's body. Unlike most Russian varieties used for pollination, 'Honey Bee' holds onto its fruit firmly and stays on the bush longer than most other varieties. Most Russian blue honeysuckles varieties drop their fruit as soon as ripe in late June or early July, but not 'Honey Bee'. In 2011, it was

still holding onto its fruit firmly the 3rd week of August. The stems stay on the fruit about 40% of the time when picked (reminds me of a stinger). That cylindrical shape doesn't roll around very well in equipment and neither do the stems (Stingers) come off very easily, so this variety is definitely not recommended for mechanical harvesting, unless juice is the goal.

The fruit is tarter than 'BTI' but less tart than most Russian pollinators. It has a general flavour like other Haskap but it has a hint of something different. A few growers that tasted it said it tasted good and a few also thought there was something different about it but couldn't put their finger on it. I think that undertone may be a very very slight bitterness or astringency that in the jargon of wine making might be a characteristic that gives better 'mouth-feel' to wines. Or in keeping with the bee theme, it could give a bit of a buzz. I hope some wine makers will one day try this variety and tell me if it makes a better wine. A bit more tartness could be an asset in processing or cooking. However, unless you are prepared to remove all those stems on the berries, it would be better to just crush the berries and use the juice for drinking, wine making, or making jelly.

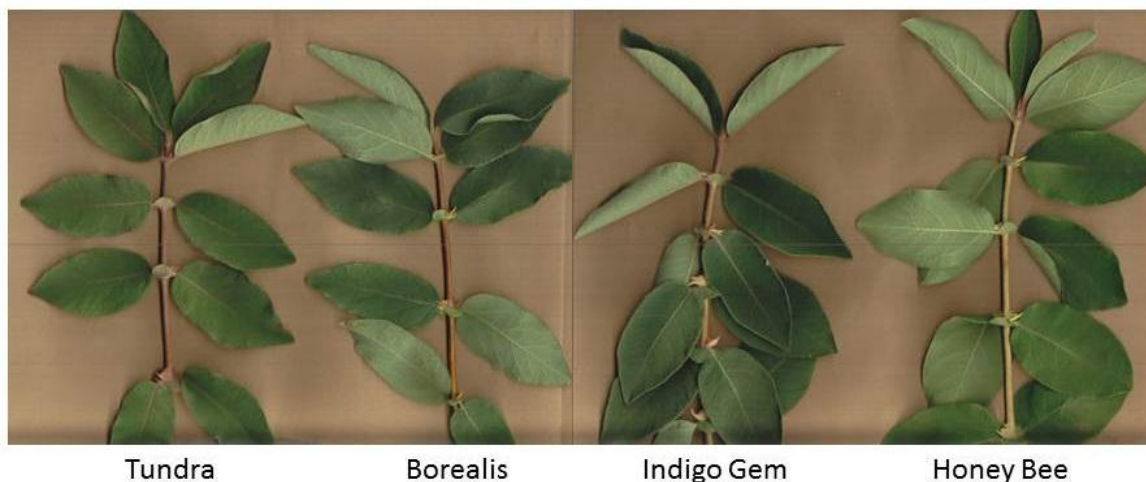


Figure 2. 'Honey Bee's leaves are similar size but slightly wider than our other varieties. Also it has less pubescence (hairs) on its leaves.

Its leaves are very similar in appearance to 'BTI' and like 'BTI' it has a high degree of resistance to leaf mildew on our test plots (see figure 2). The reason they look similar is because 'Honeybee' is also a hybrid between a variety from Russia (Souvenir) and a variety descendant from the Kuril Islands (F-1-9-58 alias 'Blue

Pacific'). But it pollinates them well because its parents are not closely related to 'BTI's parents. But both of 'Honey Bee's' parents are taller than 'BTI's and it is suspected that it will grow to be 2 feet or so taller than 'BTI'. The original plant of 'Honey Bee' is at least 50% taller than the 'Borealis' plants in the same row.



Figure 3. 'Honey Bee's fruit is cylindrical. The original bush is rather young so fruit size will likely increase when the bush gets older. Notice that some of the stems are still holding onto the berries.

The need for a mildew-resistant pollinator 'BTI' are siblings and do not pollinate each other well. Previously, we recommended trying other Russian varieties that are on the market. We had many complaints, especially from home gardeners, that their pollinators were getting severe mildew in July and looked poorly the rest of the summer (see figure 4). Mildew makes plants look poorly for the latter half of summer but does not seem to greatly reduce productivity or longevity. Fruit farmers don't need to pull out existing pollinators if they get mildew. But bush appearance is likely to be more important for gardeners. If replacing existing pollinators, it would be best to let 'Honey Bee' get a few years old before removing the old pollinator, to assure adequate pollen supply.

History: In 2009, we started a search for a better pollinator by identifying the best 6 seedlings out of about 1000 from the 2006 and 2007 plantings. All 6 were

rated as productive, good tasting, vigorous, and bearing fruit at a young age. 'Honey Bee' was one of the few good producers at only 2 years old. All 6 selections were put into tissue culture to evaluate relative ease of propagation and Honey Bee was the fastest multiplier. The next season we observed the timing of flower opening and did controlled crosses with all 6. 'Honey Bee' was the best choice because it alone bloomed at the right time and gave good fruit set when crossed to 'Borealis' and 'Tundra'. We did not test the 'Indigo' series are siblings of 'Borealis' and 'Tundra' and should work well with 'Honeybee'.



Berry Blue
(Czech#17)

Cinderella
(Zolushka)

Figure 4. These 2 commonly used pollinators have much smaller leaves than our varieties in figure 2. All leaf photos were taken on July 22, 2011 and are the same scale. The 'Berry Blue' in this photo has a moderate level of mildew, while 'Cinderella' has a severe level. 'Honey Bee' is rated as highly resistant to mildew. Mildew varies from year to year but tends to strike in mid to late July especially if it is hot and humid.

Pollination Myths: Haskap or Honeyberries or Blue Honeysuckles do not have male or female plants; every Haskap (or Honeyberry) variety has both male and female parts but can't pollinate itself...just like apples, pears, plum, and apricots. It's nature's way of making healthy hybrid offspring. A Haskap pollinator will bear fruit that is quite useful. Calling something a "pollinator variety" implies that it is not as desirable as the "main variety". In the case of commercial growers using mechanical harvesters 'Tundra' and possibly 'Indigo Gem' are more durable

in machinery and would be considered the “main varieties” and ‘Honey Bee’ would be the “pollinator variety”. In the case of a homeowner growing ‘Borealis,’ perhaps ‘Honey Bee’ might be considered just as desirable and both would could be called “companion varieties”. But both need each other to set fruit.

Planting Because of larger plant size, one ‘Honey Bee’ could provide pollen for 4 to 8 ‘Borealis’ and ‘Tundra’ plants, if planted in close proximity. There is an article about planting strategies for cross pollination in our website: www.fruit.usask.ca . In a gardening situation, it would be better to put ‘Honey Bee’ either on the north side of ‘Borealis’ or far enough away that it won’t crowd it out or reduce the sunshine. ‘Honey Bee’s bush is taller but seems to be similar width to ‘BTI’ and so can be planted at a similar spacing

Primarily useful for juice production: The fruit will likely need to be handpicked. If a machine is used for harvesting, the berries may become too mashed so it should be frozen soon after picking. It may be best to place it in separate rows. Somewhat mashed berries would still be good for most products. The stems holding onto the berries fruit is a disadvantage for many products, but would not matter if the fruit was used for juice, wine or jelly. The added tartness and different flavour may make it desirable for some products like wine or liquers.

Guard Row Potential Perhaps “Honey Bee” could be used as a guard row to protect inner rows from cedar waxwings. In 2011, we had too many fields of Haskap to protect with netting so we didn’t try. We observed that waxwings were nesting in nearby trees and swooped into rows closest to their trees. The outer rows of the field were picked clean 1st! I always observed them in bushes eating fruit, never dining on fallen berries on the ground. In many bushes it appeared that waxwings were knocking off more fruit than they were eating (see figure 5). Since ‘Honey Bee’ fruit stays on the bushes, waxwings won’t be so wasteful and it should take them longer to get to your preferred varieties.

Blue Raisins? If the birds don’t get them, ‘Honey Bee’ may be suitable for drying on the bushes to make blue raisins since it holds onto its berries. Its cylindrical berries should dry much faster than the plump ‘BTI’ berries. The advantage of drying the berries on the bush is that they remain blue, but if dried in a drying

machine they turn black. We have an article on our website called “Dried Haskap” with more details on this. Drying haskap on bushes should be considered highly experimental and we really don’t know if it is feasible.



Figure 5. Two conditions are needed for fruit drop: a variety that lets go of its fruit easily and something to jostle the bushes; something like wind, hail or waxwings.

Future & Availability: ‘Honey Bee’ will be made available to all of our propagators of ‘BTI’ and will be able to be sold into the USA. Depending on whether a nursery does tissue culture or traditional cuttings, it may take a year or two after the release of a new variety before propagators have enough to sell. Our website lists all authorised propagators www.fruit.usask.ca .

We have identified new seedlings in our breeding fields that have berries that look like ‘BTI’ berries and have very similar bushes. Some of those could be worthwhile pollinators too. But we need to observe their time of bloom and test them for pollen compatibility. It would likely take a couple years before such improved pollinators could be propagated made available to the public.

Acknowledgements: Breeding of Haskap is continuing at the University of Saskatchewan. It is made possible through grants from the Agriculture Development Fund of Saskatchewan Agriculture and from royalties from the sale of our varieties. Almost all the royalties received come back to our program to fund more fruit research and breeding.