

# Haskap Wines at the U of S Fruit Program

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A small but serious fruit wine industry is beginning to emerge in Saskatchewan. This is due, in part, to recent legislation which aims to nurture successful grape, and non-grape, cottage wineries. These wineries are driving a search for fruit which is reliably productive, and hardy, while resulting in a quality fermented product. Some of Saskatchewan's fruit wine makers have discovered Haskap, and are beginning to see the full potential of the fruit. Haskap is a fruit which has rich color, is full of flavour, and depending on the recipe, could be adapted for both fruit wine and dry table wine markets. Some tasters have even gone as far as to say the wine made from Haskap has a flavour comparable to grape wines like Cabernet Sauvignon.

Haskap is an edible form of Blue Honeysuckle. The fruit is prized in Japan, where is used in a variety of candies and other products, including wine.

Haskap has been referred to by wine makers as the closest thing to grapes currently growing in zone 2. This is due to the neutral flavour of Haskap. Neutral flavour is important when considering wines intended for the table. As most people who have tasted a Merlot, or Pinot Noir grape know, a good wine grape doesn't possess any overwhelmingly dominant flavour. Their flavour is reminiscent of a number of other fruits, but no flavour is particularly dominant or overpowering. If a wine grape tastes "grapey", it would be called "foxy", an off flavour as far as wine is concerned. A neutral flavour allows wine to be enjoyed with a meal, often complimenting, not overpowering the flavour of the food. This neutral flavour gives Haskap

wines a balanced flavour which is reminiscent of grape wines.

A deep burgundy color is also a trademark wine attribute which Haskap shares with Grapes. Consumers associate this color with richness, flavour, and age fighting phytochemicals like resveratrol. Haskap has this color in abundance. But while intense, this color is not inky, a trait which some hardy wine grapes are known to display. We've also noticed that after Haskap juice is fermented, the color maintains its burgundy color, even when diluted. Fresh Haskap juice fades to a bluish hue when diluted.

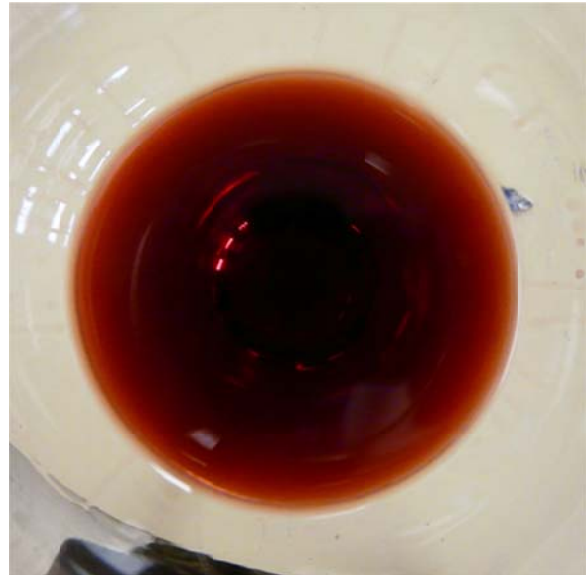


Figure 1: Haskap lends an intense color to a wine.

Haskap berries are also convenient fruit to juice. The fruit is relatively soft and the liquid is separated from the pulp quite easily, especially after it has been frozen and thawed.

## Yeasts

The type of yeast used to ferment the wine changes the personality or character of a wine. Winemakers know that pairing the right yeast with the right fruit or grape type can mean the difference between a passable wine and a really good one. Yeast will influence which flavours are expressed and accentuated and which are

muted. Yeasts even determine variables like the rate of fermentation, the final alcohol level, and even the color of the finished product.

Yeasts are generally categorized into which grapes or wine styles they compliment the most.

**Red wine yeasts:** These yeasts are generally good at increasing mouthfeel (polysaccharides). They also must not inhibit malolactic fermentation.

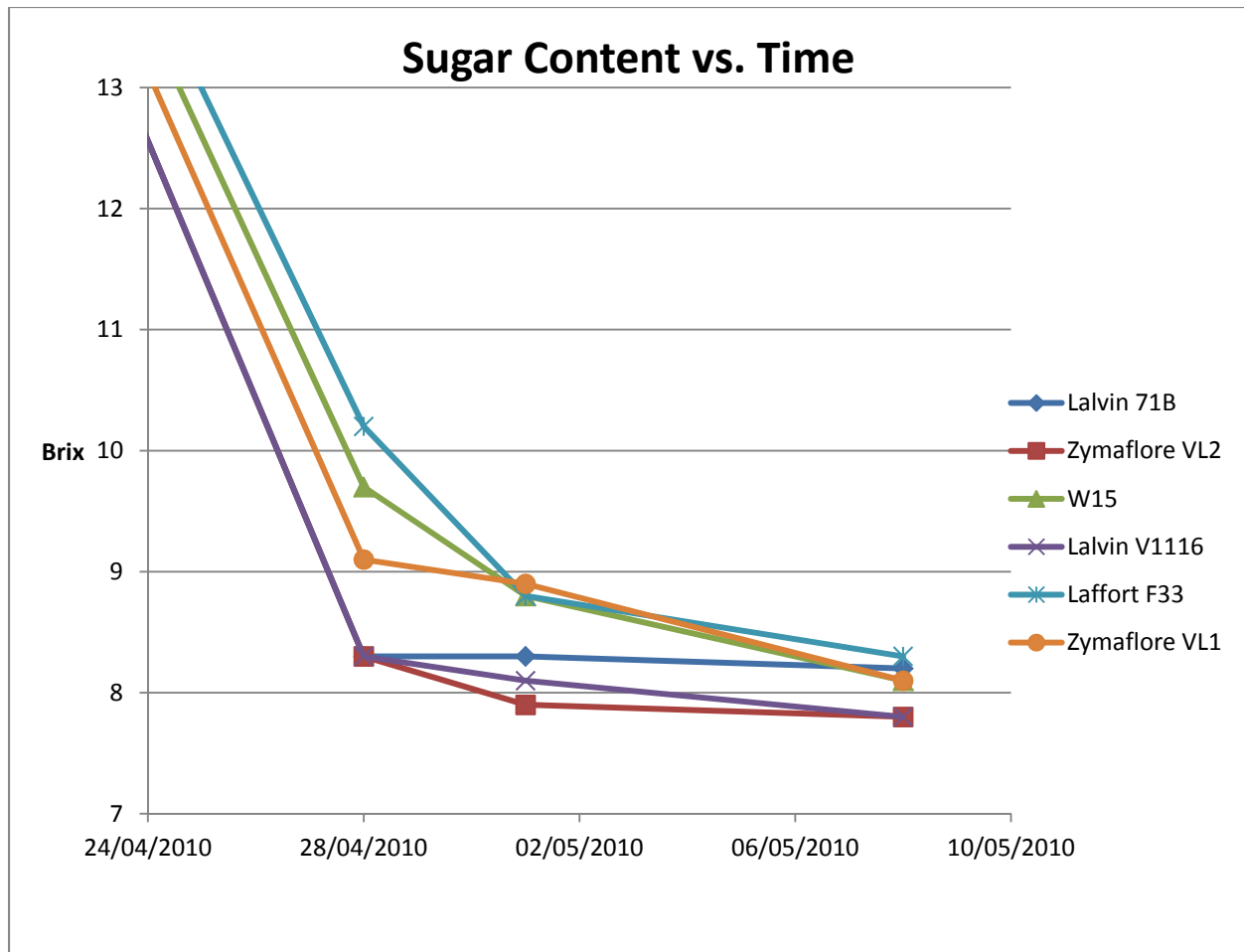
**White wine yeasts:** Generally good at elevating volatile terpenes and aromatics. (smells like pear, or citrus)

**Fruit wine yeasts:** Yeasts specifically selected for use in fruit wines are relatively rare. Usually grape wine yeasts are selected based on fermentation characteristics which are thought to compliment the flavour of the fruit in question. Popular fruit wine yeasts are often acid reducing and are selected to bring out fruity aromatics.

### **Haskap yeasts?**

We created a little experiment to help us find the right yeasts for the job. We mixed a 6 gallon batch of must, and added everything except for the yeast. We split the must up into 6 individual 1 gallon batches and pitched each with different yeast. The yeasts were chosen for us by a wine supply company in Ontario as yeast which might work well for fruit wines.

The chart below plots sugar levels in the wine vs. date. The lines which drop rapidly before becoming nearly horizontal are the plots of fast fermenters. These would work well as killer yeasts, overpowering any naturally occurring yeasts, and for high alcohol fermentations. However, the faster fermenters usually generate more heat, which can influence more delicate fruity flavours. Slower fermenting yeasts are known to generally maintain the more delicate flavours.



After taste testing, we found that the slower fermenting yeasts tested above average. Fruity aromas and cherry flavours were more prominent in the wines made with slower fermenting yeasts. We also found that the faster fermenting yeasts were considered more grape wine-like than the slower fermenters.

#### Haskap Wine styles

Grape wines are usually separated into their grape cultivars, or regions where they're grown. But within these designations also exist different ways of making wine from these grapes. These include social wines, table wines, apertifs, digestifs and ports. The flavour of Haskap lends itself to a number of these wine styles. At a Vitinord Northern Winemaking conference we made a number of connections with wine

makers, reviewers, and growers from eastern wine making regions. They suggest that some suitable wine styles for Haskap might include table wines, social wines, and ports.

**Table wines** are typically drier wines, and are meant to compliment meals. To make this sort of wine you would want to add just enough sugar to have the wine ferment to dryness. A little bit of sugar left over works well to counter the acid. Oak and Tannin are two common additives in this style wine.



**Figure 2: A dry 'table wine' style Haskap wine**

**Social wines** have a sweeter, more balanced flavour, and are meant to be consumed on their own. For this style wine, you would want to add enough sugar to leave a slightly palatable sweetness, or stop the fermentation before it continues to dryness. Good yeasts for this style wine include slower fermenters like Laffort F33, W15, and Zymaflore VL1.

**Ports** are usually fortified and sweet, and often served as dessert wines. This style wine requires the continuous dosing with sugar. Good yeasts for this style include high alcohol tolerant strains like EC1118, Lallemant 43, V1116, and W15.

### **See for yourself. Make your own Haskap Wine!**

This is a simple recipe that worked for us. These are by no means hard and fast rules. Have fun and experiment, and by all means let us know what you find.

#### *Ingredients:*

- 6kg Haskap
- 4kg sugar
- Water to 5gallons
- Yeast Nutrient
- Potassium Metabisulphate
- Wine Tannin(something like Tannin Plus works best)
- 30-40g Oak chips

#### *Instructions:*

The first step whenever you're about to make any sort of wine is sanitation. Sanitize at every step, whenever possible. Bottles and equipment should be cleaned and sulphited. Most wine kit stores sell a pink chlorinated cleanser that cleans gunk off equipment and the insides of bottles very well.

Now that the equipment is clean, crush the fruit. Some people prefer to crush the fruit in the same container they use for fermentation. Another method would be to crush the fruit in a nylon bag, leaving the bag in the must for the first fermentation step. This saves some additional filtering later on. Leaving the fruit in the must for the first steps of fermentation is referred to as maceration. Macerating gives the wine more contact time with the fruit pulp and skins which allows greater extraction of anti-oxidants, color and flavour.

To the fruit add the rest of your ingredients. Depending on the style you're trying to achieve, this is where you'd add your tannins and other additives. Leave the must uncovered for at least 6 hours after adding the sulphite before adding the yeast. Most wine yeasts are sulphite resistant, but not at high concentrations.

After about a week, the liquid can be separated from the pulp and added to a glass or food grade stainless vessel. This is when oak should be added, again, if this suits the style. Let stand for at least 1 month. Filter and bottle.

For more information about Haskap and other crops go to: [www.fruit.usask.ca](http://www.fruit.usask.ca)