



HOW TO CHOOSE THE MOST SUITABLE SPARKLING WINEMAKING METHOD IN NOVA SCOTIA

Importance of sparkling wine in Nova Scotia

Globally speaking, sparkling wine is produced almost everywhere in the world. The increase in the volume of consumption and production of sparkling wines in the last decade is described as a “boom of sparkling wine.” This same trend in sparkling wine was seen in Canada as well.

In Nova Scotia, sparkling wine has been an important product in many wineries’ portfolios. The ability to grow grapes that retain their acidity and have relatively low sugar content create a valuable opportunity to produce sparkling wines with different styles and qualities in Nova Scotia.

Different methods for sparkling winemaking

The production of sparkling wine is generally a two-stage process. The first stage is the production of the base wine, which is the still wine that will be used for the second stage. The second stage is the creation of the effervescence.

Some of the most common methods of sparkling wine production are as follows:

1. Traditional method (Méthode Traditionnelle or also known as the Champenoise method)

In the traditional method, after preparation of the base wine, a second alcoholic fermentation and an aging on lees (sediments of dead yeast cells) period are required. Both of these steps take place inside of the bottles, which will be sold to the customers. This process makes the traditional method of sparkling wine a very sophisticated product, yet labour intensive to produce.

During the aging on lees process, yeast autolysis takes place. This period affects both aromatic characteristics and mouth feel of the wines. Tertiary aromas described as yeasty, buttery and toasty notes are formed during this stage. Depending on the length of the aging process, the intensity of these aromas can be less or more pronounced. Aromatic complexity and mouth feel characteristics formed in this stage are important attributes for the style of traditional method sparkling wines.



2. Charmat (also known as tank or cuve close) method

In the Charmat method, the second alcoholic fermentation takes place in airtight vats, which enable carbon dioxide produced during fermentation to be trapped in the wine. As in the traditional method, yeast autolysis also takes place in this method. However, since the contact between the wine and the lees is not as intense as the traditional method, less tertiary aromas are formed. Therefore, with this method, sparkling wines with more pronounced primary and secondary aromas, which come from the grapes and fermentation process, can be produced.

3. Carbonation method

In the carbonation method, after base wine production, carbon dioxide is injected under pressure to create effervescence artificially. As no second alcoholic fermentation is involved in this method, the aromatic and taste characteristics of the base wine remains unmodified. This method is generally preferred for producing sparkling wines with lower pressure levels from aromatic grape varieties.

4. Other methods

There are other methods to produce sparkling wines, such as the transfer method, Asti method, ancestral method and others. One of the most common methods is the ancestral method (also known as Méthode Ancestrale or Pétillant Naturel). This method has only one alcoholic fermentation, which is stopped before all the sugar is used by the yeasts. The wine is then bottled with some residual sugar and allowed to finish fermentation in the bottle and create effervescence.

How to choose the most suitable sparkling winemaking method?

Choosing a suitable method for sparkling wine will require a holistic approach. Consider the following factors when thinking of the best method to use for sparkling wine:

- **Consumer demand:** It's important to create a product that is sought after by the consumers, depending on the targeted consumer segment.
- **Grape varieties:** Some varieties are more suitable for certain styles. It's important to take into account the varietal characteristics of the grapes to be used.
- **Style of the sparkling wine:** Aroma profile, residual sugar levels, and carbonation levels will vary depending on the production methods.
- **Necessary/available equipment:** Each method will require different equipment. It will also depend on the volume of production.
- **Cost of production:** It varies from method to method. In some methods, the length of the aging process will cause a delay in cost recovery, which should also be considered.

Finally, it's important to keep in mind that sparkling winemaking starts in the vineyard, with viticulture practices and proper management techniques put in place to grow grapes that are suitable for the ultimate goal. Next, the sparkling wine process continues in the cellar through different production methods and oenological practices. Therefore, decisions in both viticulture and enology will be required to find a suitable method for your winery to produce the intended product and to achieve the desired quality.