

## DEVELOPING AND PRODUCING FLAVOURED ALCOHOLIC BEVERAGES



Ready to Drink (RTD), Craft beverages and Flavoured Alcoholic Beverages are a booming trend in the alcoholic beverage sector. Many companies are looking at developing and producing these beverages.

When deciding on the type of alcoholic beverage you want to develop, some main variables are considered.

- Trends
- Intended market
- Ingredients
- Processing capabilities
- Stability/Food Safety

### Trends

Being aware of the trends in the beverage sector you intend to make will help you determine what could be successful. It is important to look at large markets, but also locally what is being produced and what types of beverages and flavours are trending. For example, low caloric content and low sugar alcoholic beverages are currently popular

### Intended Market

It is important to decide who your intended market is. This helps you determine the best product to create for your intended consumer. Looking at what products are popular in certain demographics and market sectors can give you valuable information. Investing the time to do market and trend research as you are coming up with product concepts will help you succeed in the final product.



# FACT SHEET

JANUARY 2021 | ©Perennia 2021

## Ingredients

### Water

The water being used in a beverage should pass all water safety requirements for human consumption.

### Flavours

Choices of flavours are endless but can be hard to navigate since there are so many options. The most important thing to remember is to work with water-soluble flavours. These will distribute into your beverage homogeneously.

- **Natural Flavours** – derived from a natural source
- **Artificial Flavour** – synthesized chemically
- **Natural and Artificial Flavours** – a combination of natural sources and synthesized flavours
- **Extracts** – extracted from raw material such as herbs, fruits, etc.

For more information on using flavours, check out "[It's all about flavours](#)" fact sheet.

### Juices/Juice Concentrates

If you decide to add juices to your beverage, there are some added considerations.

- Make sure the juice has been pasteurized. This helps decrease the potential for microbial contamination. It is the standard for most juice and juice concentrate suppliers to do this to ensure the product is stable.
- If possible, use a juice or juice concentrate that is clarified. This helps prevent any fallout or sediment from forming in the beverage over time.
- If you are planning to carbonate your beverage, be aware that the more viscous the juice, the more difficult it is to carbonate.
- Note that juices contribute to added sugar in the final beverage. If you are aiming for a certain sugar content, it is important to be aware of that. Also, the added sugar creates food safety risks that may need to be mitigated. ([see food safety section](#))

### Sugars

A few different options can be used for adding additional sweetness to your beverage if desired.

- **Solid sugars** – granulated white and cane sugar are the most common options. A key point about working with these sugars is that they dissolve the best in warm liquids with agitation.
- **Liquid Sugars** – Liquid glucose is the more common option due to the ease of blending. Agitation is recommended when blending syrups into the water as the syrups are heavy and will sink to the bottom of a tank. Syrups are also easier to work with if they are warmed. Clean label options such as honey or agave syrup can also be considered. However, they also impart a distinct flavour.
- **Other sweeteners** – if you would like sweetness to your beverage but want to keep the sugar content and caloric value lower, these are some of the permitted options for alcoholic beverages.
  - » Erythritol
  - » Sucralose

### Alcohol

The type of alcohol will contribute to the flavour of the final beverage. It will also determine how your final beverage can be named and labelled. Make sure to review all alcoholic beverage naming regulations at the [CFIA's website](#).

## Processing

---

It is important you have the proper processing capabilities to create the beverage you want.

### Mixing/Blending Capabilities

The type of capabilities you have can determine the ingredients you use.

- **Mixing with propeller-type mixers** – this allows for more agitation so ingredients can combine quicker and dissolve more easily.
- **Mixing with air “bubbling”** – this is not as effective as using a mixer but works well when using water-soluble ingredients that are not “heavy.”

### Carbonation

Carbon dioxide (CO<sub>2</sub>) dissolves into a solution most effectively at cold temperatures (2-5°C). If you want to carbonate your beverage, you will require the ability to chill to these cold temperatures. A brite tank with a glycol jacket for chilling is the best option.

### Filtration

Based on the type of beverage you are producing, filtration may be an option you want to consider. It can reduce sedimentation and aid in microbial stability.

## Food Safety

---

It is important to ensure that your final product is food safe for consumers. When developing a beverage, if you can obtain a pH below 4.6, that aids significantly in decreasing microbial growth. Alcohol does help inhibit growth, but if you are working with juices and/or other added sugars, then it is very important to try and obtain that pH target since extra sugars can be a source of food for the microorganisms.

Here are some common ways to help ensure your product is food safe.

- **Acids** – adding an acid will decrease your pH. The most common acidifiers used in beverage development are citric, ascorbic and malic acid.

- **Heat processing** – pasteurizing the product will kill any microorganisms that are present. This is not commonly needed in flavoured alcoholic beverages, but if you are developing something with high levels of juice and sugars, it may be an important step.
- **Preservatives** – adding a preservative to the product can help inhibit certain microbial growth. Yeasts can be the most common contaminant, and adding a preservative will help inhibit their growth. Potassium Sorbate or sodium benzoate may be used, dependent on the pH of the beverage
- **Filtration** – if you filter your beverage using a 0.45 or smaller micron filter, you can remove the majority of microorganisms.
- **General processing GMPs** – when processing your beverage, it's important to be mindful of good manufacturing practices (GMPs) during the entire process. Ensuring these food safety measures are being met will help guarantee your product consistently meets your safety and quality standards.

## Stability/Shelf Life

---

You want to verify that your product will remain stable and safe over time. As a product sits on a store shelf, subject to different environmental conditions, it can change. Colour can fade or change, fallout and sediment can occur, and flavours can change. It is important to test this during the development process. Initial stability evaluations should occur to make sure none of these changes happen in a short time period. Once you have developed a product and tested it on your processing line, the shelf life can be determined. The shelf life is how long the product maintains acceptable quality and food safety.

For more information on Food Safety, please check out our [food safety resources page](#)