

Ancient Brews, Modern Tastes: A Fermented Exploration

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Introduction

Fermented beverages being a part of the human culture for more than a thousand years, has a prominent role in traditions as well as modern lives. Fermentation, the transformation of different raw materials into delightful and intoxicating liquids, has provided us with the opportunity to dwell into the world of taste. In this article, we explore the wonderful world of fermented beverages travelling through their rich history, cultural significance and its types- alcoholic and non-alcoholic beverages. We will also look into the various health benefits that is associated with the consumption of certain fermented beverages such as wine, beer and kombucha.

History and Cultural Significance

Fermented beverages date back to 5000 BCE. A mixed fermented beverage made from rice, honey and fruit was said to exist in China. This beverage with its intoxicating property led to the production of other fermented drinks. Beer brewing likely began around 5000 BCE in ancient Mesopotamia and it was known as sikaru.

Fermented beverages are an integral part of various celebrations, rituals and social gatherings. The consumption of beer and wine during social gathering as well as celebration fostered a sense of community. These drinks were attributed to have medicinal properties and was used by various communities to treat ailments. Many beverages like rice wine (sake) became a cultural touchstone consumed during special occasions as well as on daily basis.

Types of fermented beverages

Fermented Alcoholic Beverages

Fermented alcoholic beverages are beverages that contain alcohol and is often produced by fermentation of fruits, cereals, molasses etc. Some of them are listed below:

1) Beer

Across the world, Beer is third most consumed fermented alcoholic beverages. It is produced by brewing process mainly from malted barley and malted wheat. Beer can also be prepared from fruits like jambolan, mango, jackfruit, cashew, watermelon and

pineapple. Yeast species like *Saccharomyces cerevisiae* and *saccharomyces uvarum* is used for fermenting sugar into alcohol. Light beer contains 4.2% alcoholic content while regular beer contains 5% alcoholic content.

2) Brandy

Brandy is an aged alcoholic beverage which is made from grape wine or other fermented pulp of fruits like apple, berries or pears. It contains a moderate concentration of alcohol of about 35-60%. It's flavour ranges from sweet and fruity to batty and dry according to the fermentation processes.

3) Wine

Wine is a common alcoholic drink which is made from the fermentation of grapes especially from the species *Vitis vinifera*. During initial stages of fermentation, yeast converts the sugar into alcohol and carbon dioxide. Then it is subjected to malolactic fermentation in which certain lactic acid bacteria species converts malic acid into lactic acid. The alcoholic content of wine ranges from 8-15%.

4) Whiskey

The liquor which is made from the fermented liquid mesh is known as whiskey, contains 40-50% alcohol by volume. It is produced when grains like corn, barley or rye are mixed with water and subjected to fermentation.

5) Vodka

Vodka is a traditional liquor which is made mostly from potatoes, grains and sugar beet molasses. Water is one of the main ingredients used in vodka. The alcoholic content typically ranges from 35-40%. It is mainly used in cocktails.

Some other traditional alcoholic beverages and their origin

Beverage name	Raw material	Origin
Tequila	Blue agave	Mexico
Soju	Rice, Barley, Wheat	Korea
Shochu	Barley, Sweet potato	Japan
Palinka	Fruits	Hungary

Baijiu	Sorghum, Rice, Wheat	China
Lambanog	Coconut sap	Philippine
Basi	Sugarcane	Philippine

Non-Alcoholic Fermented Beverages

Non-alcoholic fermented beverages is a category of drinks that use fermentation, and has little or no alcohol. Some of them are listed below:

1. Kombucha

It is a tea based fermented drink with SCOBY (Symbiotic Culture of Bacteria and Yeast) . It is rich in probiotics, B vitamins as well as many other beneficial compounds. It also has antioxidants and anti-inflammatory properties that supports the immune system. The kombucha, basically being sour and tangy can have various flavour based on the type of tea and added flavouring.

2. Kefir

Know to originate in the Caucasus region, kefir is a fermented milk drink that is made by adding kefir grains, a mixture of bacteria and yeast, to milk. It is rich in probiotics, calcium, vitamins and proteins. It is also said to improve digestion and reducing inflammation. Kefir improves your mood and provides mental clarity.

3. Boza

Made from grains like maize and wheat, boza is a fermented beverage that has originated from central Asia. It has a thick consistency a slightly acidic flavour with little or no alcohol content. It is rich in various vitamins minerals as well as complex carbohydrate.

4. Tepache

Tepache is a slightly alcoholic tangy beverage with a hint of pineapple flavour that has been consumed traditionally in Mexico. It improves the gut health and boost the immune system and is often regarded as an alternative to various alcoholic beverages as well as commercial sodas

5. Ayran

Ayran is a refreshing tangy slightly sour beverage, that is a popular Turkish drink made from yogurt. It is good for digestion and is also considered as a remedy for dehydration and sunstroke. It has relatively high contest of protein and calcium. Some other traditional non-alcoholic beverages and their origin

Beverage name	Raw material	Origin
Pito	Sorghum	Africa
Shoro	Millet	Africa
Mochi	Rice	Japan
Maziwa	Milk	Africa
Gvina	Wheat	Eastern Europe
Sikhye	Rice	Korea

Health benefits & potential risk

Fermented beverages are proven to have many health benefits like supporting heart health, immune function and weight loss. It acts as a potential source of beneficial bacteria and help in improving digestion as well as the availability of nutrients. It influences cortisol production and reduce symptoms of stress.

Fermented beverages reduce blood pressure and improve cholesterol levels which lowers risk of heart disease. Including various fermented foods in our diet can help in reducing infections and improving immunity. Bacteria that is present in fermented beverages have a potential probiotics effect and this improves the balance of bacteria in our gut, thus helping to prevt digestive problems. By consuming fermented beverages, we increase the health potential of various beverages by increasing the availability of vitamins and minerals for our body to absorb.

Despite of its numerous advantages, fermented beverages have its own demerits. Since some of these have high alcoholic content, they may cause addiction. They may also contain added sugars, caffeine, histamines etc which may trigger sensitive reactions in a certain subset of the population.

Conclusion

Fermented beverages have always been a significant part of the human culture for millennia, offering a diversity of flavours, aroma and experiences. These drinks have played a prominent role in shaping our traditions and culinary practices. As we have seen in this article, fermented beverages offer more than a pleasant taste. They have varying health benefits and cultural significance. As we embrace the future of fermented beverages, we respect the rich history of this ancient craft while seeking the possibilities of innovation and sustainability.
