Liquor Blending and Storage

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Abstract

Blending is a very important part of liquor production process. It is a special technique to mix liquor with different aroma, taste, style and quality according to different proportion so that the characteristics of finished liquor can reach a certain degree of coordination and balance. Blending is divided into two steps, blending and seasoning. Blending is through the analysis of the selected base wine data, according to the different proportion of sample combination, to make the appropriate proportion. Flavoring is to make a perfect finish after combining the base wine according to the best design scheme, aiming at the deficiencies of the combined wine, make up for the deficiency of the combined wine by using a very small amount of flavoring wine, improve the quality and grade of the wine, and highlight the style of the wine.

Keywords

Blending; Liquor; Storage.

1. Blending of liquor

1.1 Understanding of blending

According to a unified standard, blending is a process of comprehensively balancing different types of liquor. Blending can achieve the purpose of improving the quality of the wine, can make up for the defects, strengths and weaknesses, the formation of a body, and characteristics.

1.2 Principle of blending

The principle of blending is to rearrange and associate the molecules of various trace fragrance components according to the absolute content of various trace fragrance components and the proportion balance between them, so as to achieve the flavor and style characteristics of the standard wine samples.

1.3 Methods of blending liquor in different states

For all the solid liquor, in the process of koji, fermentation, steaming, aging and other links, it is essential to hook. Solid state method of production, completely by the grain solid state fermentation of the basic wine, flavoring wine blending, not to add edible alcohol and non-liquor fermentation produced by the aromatic flavor substances, this determines that the solid state method of liquor blending must be wine blending.

Liquid method basic consists of edible alcohol liquor, a small amount of grain of solid state fermentation liquor composition, even completely with edible alcohol as liquor base, do not contain food fermentation liquor of solid-state method, use of food additives, the sweet flavor [1]. So the liquid method of liquor blending in edible alcohol and small amounts of food solid-state fermentation of base liquor and flavoring liquor blending each other, or is completely alcohol wine

Solid liquor liquor is composed of solid liquor liquor and liquid which are not less than 30%, so the blending of solid liquor is based on the blending of edible alcohol and a small amount of grain solid fermentation base liquor and flavoring liquor.

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1.4 problems to be paid attention to

1.4.1. Fully understand the quality of qualified wines

Each storage unit must have a sound "record" of the wine, such as the difference, degree, weight, wine quality, sensory comments and physical and chemical analysis data. Once changes occur later, measures can be taken to address the problem [2].

1.4.2. The sample must be mixed first

Through the blending of the samples, we can gradually understand the various properties of wine, and understand the changing law of wine quality and the relationship between the ratio of various kinds of wine.

1.4.3. Make the original record of blending

The original record of blending can help memory and provide data and basis for analysis and research. The contents of the record include [3]: the names and quantities of various sprinkles, and the description of sensory evaluation after mixing, etc.It is necessary to record the failures and successes in the blending process, in this way, to summarize the lessons learned and continuously improve the blending technique.

2. To taste

2.1 Understanding of seasoning

Flavoring is the last step in the finishing of a base wine, and it's a very delicate job. The principle is to use a very small amount of the essence of the wine to make up for the lack of aroma and taste of the base wine, making it elegant and plump.

2.2 Seasoning method

- (1) Determine the advantages and disadvantages of the base wine. First of all, through the evaluation, to understand the wine quality problems. Clear main attack direction, clever base wine and seasoning wine reasonable combination, to achieve the right remedy, make the wine aroma balance, stable and improve product quality, highlight their own style.
- (2) Choose flavored wine. The choice of flavoring wine should be consistent with the base wine, it must be typical of the strong wine [4]. One or a few of them aroma component content is particularly high, can make up for a certain defect of base wine. It is necessary to have a comprehensive understanding of the properties of various flavoring wines and their role in flavoring in order to make the flavoring work correct and reasonable. If properly selected, the effect is obvious, and the dosage is small; If choose not appropriate, the effect is not apparent, and dosage is big, then it can exceed adjust even worse. Flavored wines can be used in one or more combinations.
- (3) Types of flavored wine. There are many kinds of flavoring wine, which requires the staff to accumulate experience gradually and choose flavoring wine reasonably. Generally, there are two rounds of flavoring wine, aged flavoring wine, head flavoring wine, tail flavoring wine, special flavoring wine, special cool flavoring wine, sauce flavoring wine and so on. Specific production needs to be based on their actual situation.
- (4) Sample seasoning. First, flavoring want to carry on small sample debugging. According to the situation of base wine, choosing all kinds of flavoring wine, selecting all kinds of flavoring wine carefully, achieving "fine carving", will solve the problem that base wine exists and inadequacy.
- (5) Formal seasoning. According to the sample experiment, the dosage of flavoring wine was calculated. Add in base wine, stir well and taste. See whether accord with small sample wine quality, if not ideal, should have been added on the basis of the flavored wine, then make up until satisfied. After the evaluation of qualified, before the packaging out of the factory, if there is a decline in the taste after storage, it must be flavored until the quality of the end.

2.3 Seasonings should be paid attention to

2.3.1 The appliance shall be clean

Appliances must be kept clean and clean. Otherwise, will make the result of the seasoning error, waste seasoning wine and destroy the base wine.

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2.3.2 Pay attention to the quality of basic wine

Base wine quality is good, flavoring wine dosage is small, and easy to mix well. The basic wine quality is poor, the seasoning work is more difficult, therefore, should use a large number of flavoring wine, and after repeated times to adjust the good. Therefore, the relationship between blending and seasoning is very close, mutual influence. So in the seasoning, it is important to master the quality standards of the base wine.

2.3.3 Make original records

Flavorings are generally used in very small quantities, sometimes as little as 1/10, 000 or less. Therefore, in the seasoning, it is to be careful.

3. The storage

(1) Clean wine storage. Because the new wine may contain sediment, fiber, metal oxide and so on, during the storage they will have complex reactions with the flavoring substances in the wine, bringing adverse consequences to the production of liquor. (2) "forgotten" storage. At least, part of the high-quality wine and flavoring wine is stored in the pottery altar for 3 years before using, which is very beneficial to the development of high-end products. (3) lower storage, to avoid mixing when the balance of the wine after long-term storage is broken, the stability of the wine is better. (4) leave 10% of the top of the storage container to facilitate the oxidation of the wine and seal it to prevent the loss of the wine [5].

4. Conclusion

Blending and flavoring is a complicated and precise process in liquor production, which plays an important role in ensuring product quality and improving liquor yield. Therefore, blending and flavoring are very important to improve liquor quality.

References

- [1] Emphasis on blending technology to Promote the development of liquor [J]. Cao Jianjun. Brewing Technology. 2005(08).
- [2] Nutrition flavoring oil production process and quality evaluation [J]. Qu Hong, Feng Chengli, ZHANG Hai, Zuo Yuping, Duan Xiufang. Chinese Condiments. 1994(06).
- [3] The Latest Liquor Blending technology -- Pulsed pneumatic Blending System [J]. Li Zhiyu. Brewing Technology. 2009(07).
- [4] Screening and Identification of Ester producing yeast in Qinghai-Sweet Daqu Liquor [D]. Wang Chaoyang. Shanxi University 2019.
- [5] A Brief Analysis of Liquor Blending and flavoring [J]. Zhang Songying. Brewing Technology. 2012(04).