

## Bamboo Juice, Beer and Medicine

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In ancient China, the fresh culm of *Phyllostachys glauca* was roasted to produce fresh bamboo juice for medicine. Its output was as low as 9.3 lbs (3.5 kg) of juice per 268 lbs (100 kg) of fresh culms. So, in recent years, bamboo juice is being produced by pressure or cooking. The juice is also being used to make beverages and specific liquor.

Beer is a kind of low-alcoholic drink mainly made from barley. With the improvement of living standards and health care in China, there is an impetus towards research of new beers fortified with naturally occurring ingredients with specific health concerns. Bamboo is traditionally used in food and medicine in Southeast Asia.

The latest research showed that there are many different flavone glycosides in bamboo leaves, which have excellent physiological activities as anti-free radical, anti-oxidation and anti-aging agents.

In this study, green-dry leaves from the *Phyllostachys* genus bamboo were picked in autumn and extracted. After boiling the bamboo leaves in water, the extract was concentrated in vacuum, and the impurities removed using the ethanol precipitation method, to give a fine bamboo leaf juice. The bamboo beer was prepared by adding the juice to the original beer, then mixed, filtered and bottled. The amount of the juice added, taking its total flavonoids (TF) amount as index, was between 0.3 to 1.7 fl. oz. (US) per 2 pints (US) (10 to 50 mg per liter) of beer, depending on requirements.

In addition to the general characteristics of beer, bamboo beer showed multiple health benefits, such as lowering blood lipids and preventing heart diseases. Furthermore, bamboo beer presents a typical delicate fragrance of bamboo to match the beer flavor. This health beer is available in Chinese markets.

**Note:** Flavonoids made from bamboo leaves are also used to make medicine such as capsules. ■

