

I am Jocelyn Makasare, Assistant Professor, Department of Botany, Parvatibai Chowgule College of Arts and Science Margao.

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Outline: Process of making cashew wine and process of making cashew feni

Learning outcomes: Explains the process of making cashew wine and cashew feni.

Differentiates between cashew wine and cashew feni.

#### Introduction

The scientific name of cashew is *Anacardium occidentale* and the common name is cashew in English and *Caju* in Konkani. It belongs to the family Anacardiaceae. In India, there are 20 lakh tons of cashew apples produced annually, most of which are thrown away. In Goa, 50,000 tons of cashew apples are utilized in the liquor industry. Post harvest the casual apples perish within a very short time, therefore, they cannot be kept for more than a day and must be processed soon after collection. The cashew apple juice is fermented and made into alcoholic beverages which retain the fresh fruity flavor of the cashew apple juice.

Cashew is a seasonal crop. The cashew apple distillation continues for about four months, from February to May. It provides employment to around 10,000 families in Goa, after the main rice crop cultivation.

The juice of cashew apples is fermented to produce two types of liquors, that is, cashew wine and cashew feni. Cashew wine contains six to twelve percent of alcohol and cashew feni will contain 40 to 45% alcohol.

We shall discuss both in detail.

Cashew wine is a light yellow alcoholic drink with an alcohol content of 6 to 12%.

The industrial processing of cashew wine: selection, slicing, crushing, sterilization, filtration, inoculation, fermentation, filtration, pasteurization and aging.

We shall see each of these steps in detail:

The first is selection: mature, sound, tree ripe cashew apples are plucked, deseeded and washed.

The second step is slicing: the cashew apples are sliced in order to ensure a rapid rate of juice extraction then the apples are crushed in a juice press. The juice press gives 70 percent efficiency of juice extraction.

Sterilization is carried out in stainless steel pans and a temperature of 85 degree celsius is employed to eliminate wild yeasts.

Filtration: the juice is filtered and treated with sodium or potassium metabisulfite to destroy or inhibit the growth of undesirable microorganisms like moulds, acetic acid bacteria, wild yeasts, etc.

The juice is inoculated with yeast, *Saccharomyces cerevisiae* variety ellipsoideus.

After inoculation it is stirred thoroughly and allowed to ferment for a period of two weeks.

After fermentation the juice is again filtered. The wine is separated from the sediment and is clarified by mixing fining agents such as gelatin, pectin and casein.

Clarification is done to remove any turbidity. You do not want your wine to be very turbid. A clear wine is a good wine.

Filtration is carried out with filter aids such as fuller's earth.

Pasteurization is carried out at a temperature of around 50 to 60 degrees celsius.

Aging the wine: wine is stored in wooden vats for upto 6 months and after aging if necessary clarification is again carried out before bottling.

Packaging: the wine is packaged in glass bottles with corks and kept out of direct sunlight.

When the wine is aging and maturing in bottles, many reactions like oxidation occur. The formation of esters and aldehydes together with tannins and acids improve the taste and aroma of wine and also enhance the preservation of cashew wine.

## Cashew feni

Cashew feni is a brandy or a liquor which is produced in Goa by fermenting cashew apple juice. The term “feni” is derived from the word “*fenn*” which means “froth” in Konkani.

### Industrial processing of cashew feni:

Ripe cashew apples are plucked and de-seeded.

They are transported from the farm to the industry where the production of feni will be carried out.

The cashew apples are washed and weighed and then put in the fruit mill for juice extraction. Later, sulphitation is carried out. Sulphitation is carried out by pumping in sulfur dioxide gas which clarifies the fruit juice.

It is then inoculated with yeast, *Saccharomyces cerevisiae* to improve the alcohol content and quality and fermented for around two to three days.

Distillation is carried out. After distillation, the alcohol content is adjusted to sixty percent and kept in wooden vats for aging at a temperature of 15 degrees celsius.

It is again diluted to 43 percent with water, which is the ultimate cashew feni that is obtained.

The next step is filtration and the alcohol, that is, cashew feni is bottled and labeled.

### The traditional processing of cashew feni

In the traditional process of making cashew feni, tree ripened fruits are collected and deseeded and are placed into a basin which is carved out of a stone called “kolmbi”. The cashew apples are stomped to release the juice. Stomping is extraction by crushing with your feet. The stomping process is gradually being replaced by a press called “pingre”. The juice that is released is the first extract.

The fruit pulp is then hand patted into small mounds and tied using a vine called “nudi” to hold it together and a heavy rock or stone is placed on top of the mound to squeeze out or extract the remaining juice called “neero”. This will be the second extract. Neero is a very light and refreshing sweet drink. It is a very good drink to have in the summer season.

After the first juice is extracted it is kept for fermentation in a large earthen pot called “kodem” which is buried halfway into the ground and the juice is left for fermentation for up to three days. Earthen kodem is now being replaced by plastic drums for practicality.

No artificial yeast or nutrients are added to hasten the process of fermentation.

After the juice is fermented it is distilled.

The traditional distillery is known as the “bhatti”. The components of the traditional distillery are: *bhann*, pipe, *lawni* and a fireplace. *Bhann* is a big copper cauldron which contains the fermented juice to be boiled. The pipe is made of bamboo which acts as a transformer of vapor and the *lawni* which is a clay pot, acts as a condenser and a fireplace or an open hearth.

This is a picture showing the *bhatti*.

Cashew feni is a triple distilled spirit.

The first distillate is known as “*urrack*” which contains 15 percent alcohol. The second distillate is “*cazulo*”. *Urrack* is redistilled to obtain *cazulo* which contains around 40 to 42 percent alcohol. *Cazulo* is distilled again with *urrack* to give *feni* which has 45% alcohol content.

These are the references and some more additional references.

Thank you!