

gShort Communication

Traditionally fermented alcoholic beverages of high altitude Bhotiya tribal community in Kumaun Himalaya, India

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***Bhotiya* is a tribal community in the high altitude hills of Uttarakhand state. *Bhotiya* community is known for its ethnic knowledge globally. The *Bhotiya* have old age tradition of preparing fermented beverages like *Jaan* and *Kacchi* with traditionally prepared starter culture called *Balam*. These beverages play an important role in the socio-economic and cultural life of *Bhotiya* tribe of Munsyari region in Johar valley. This paper deals with the detailed account of two important alcoholic beverages prepared and consumed by the *Bhotiya* tribal community, inhabiting the Munsyari region of Kumaun Himalaya.**

Key words: *Bhotiya* tribe, traditional knowledge, *Balam*, *Jaan*, *Kacchi*, Kumaun Himalaya.

INTRODUCTION

Bhotiya is a hilly tribal community, which is mainly found in high altitudes of Kumaun and Garhwal regions of Uttarakhand state of India. In Kumaun region, Bhotiyas are mainly found in Pithoragarh district and some parts of Bageswar district. *Bhotiya* tribes are known for their traditional knowledge of sustaining life in high altitudes all over the world. The tribes are mainly depends on the forests and meadows for food, medicine and shelter, etc. Preparation and consumption of traditionally fermented beverages are common with all tribal peoples of India (Kumar and Rao, 2007). A fermented food is defined as an edible product prepared from raw or cooked material of plant or animal origin by micro organism(s) either spontaneously or by adding mixture or pure culture (Hansen, 2002; Hulse, 2004). Fermented foods provide the bio-nutrients, minerals and are fortified with bio-actives compounds, enhancing the flavour and aroma

and exert health-promoting beneficial substances (Darby, 1997; Campbell-Platt, 1994; Steinkraus, 1996; Tamang, 2009). *Bhotiya* community of Johar Valley also have tremendous knowledge of making such alcoholic beverages for sustaining their life in extreme conditions. *Jaan* and *Kacchi*, two alcoholic beverages are integral part of socio-economic life of *Bhotiya* tribes. *Jaan* is the rice beer containing low concentration of alcohol while *Kacchi* is distilled liquor that contains higher concentration of alcohol. *Jaan* is a soft drink (local beer) prepared by fermentation of boiled rice with traditionally prepared starter culture called *Balam*. While *Kacchi* is distilled beverage prepared by fermentation of boiled barley grains and distillation of ferment. Beverages are not only popular drink of *Bhotiya* tribe but also considered to be pure drink and used also by Bhotiya women during various festivals and ceremonies. It is a tradition to offer

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these beverages to guest and relatives. Hence, this study aimed to explore the fermentation technology and its socio-economic impact on Bhotiya tribal community and commercial exploration of traditional fermentation technology and knowledge.

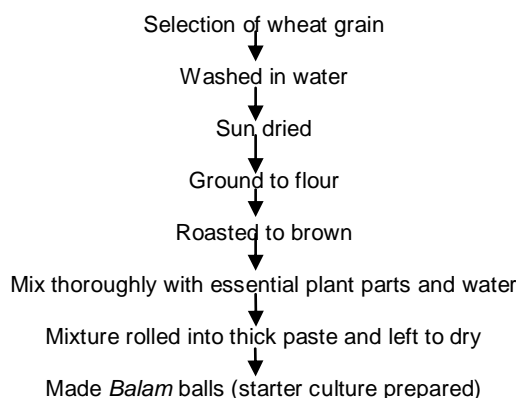
MATERIALS AND METHODS

The study was carried out during 2011-2012 in Munsyari developmental block of Pithoragarh district in Kumaun Himalaya. The house head and village elders were requested to share the traditional knowledge on various aspect of topic such as fermentation process, preparation of starter culture, *Balam* and plants used in it, distillation process of fermentation and traditional uses of beverages and implications on the socio-economic culture of Bhotiya tribes. Collected information was confirmed from elderly persons and women who are often engaged in distillation process and preparation of *Balam* (yeast culture).

Preparation of *Balam* (starter culture)

The starter culture, *Balam* is prepared by using wheat (*Triticum* spp.) as substrate and mixed with number of herbs and spices. For preparation of *Balam*, wheat grains are washed first by water, dried in sunlight, ground to flour and then roasted in pan over fire till it turns brown colour. The roasted flour is mixed with the plant *Cinnamomum zeylanicum* Breyn., *Ammomum subulatum* Roxb., *Piper longum* Linn. and *Ficus religiosa* Linn. seeds (Das and Pandey, 2007). The mixture is mixed thoroughly and required amount of water is added and rolled into a thick paste open to semidry. The semi-dried mixture is then pressed between palms to make *Balam* balls of required size. These balls are dried in shade, ready to use and stored.

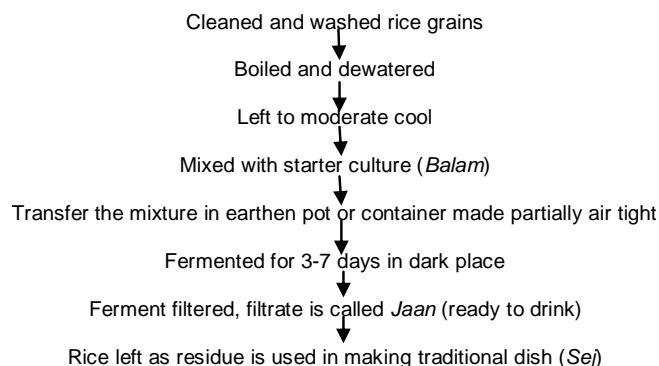
Flow sheet of *Balam* preparation



Preparation of *Jaan* (local beer)

Jaan is prepared by fermentation of boiled rice (*Oryza sativa* Linn.). At first, appropriate amount of cleaned rice is boiled, dewatered and left to moderate cool. After that, starter culture (*Balam*) mixed thoroughly with it and this mixture was transferred to an earthen pot or container. The partially air tight earthen pot or containers are left for four to seven days in dark places for further fermentation. The ferment is filtered and filtrate is called *Jaan*. The filtered rice is used in making a traditional dish *Sej*.

Flow sheet of *Jaan* preparation

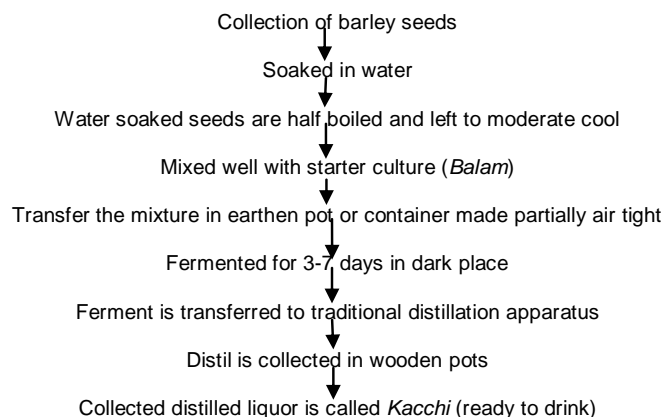


Preparation of *Kacchi* (distilled liquor)

Kacchi is the barley (*Hordeum vulgare* Linn.) based distilled beverage of *Bhotiya* tribe. First of all barley seeds are soaked in water, half boiled and allowed to moderate cool. After that the cooled seeds are mixed thoroughly with starter culture (*Balam*) in appropriate proportion and transferred to earthen pot or container, made partially airtight and left in dark for 4-7 days for fermentation. The ferment is then transferred to a distillation pot (Taula) for distillation (Photo 1(A)).

Then the pot is kept in fire for distillation. On this pot, a wooden frame is fixed which are perforated at middle and above this another copper plate (Parat) is placed in which cold water is filled. The vapour passing through the middle perforated wooden frame (Jokhal) strikes the bottom of copper pot in which cold water is filled. The vapour cools and droplets are collected in middle wooden frame. The water of upper copper plate is regularly changed to keep it cool. The strength of *Kacchi* depends on temperature of water of upper copper plate (Parat).

Flow sheet of *Kacchi* preparation



RESULTS AND DISCUSSION

Investigation among *Bhotiya* people of Munsyari reveals that preparation of these two beverages is very common among the *Bhotiya* tribe in Johar Valley and prepared in almost every house. Both beverages play important role in the social life of *Bhotiya* community. These beverages



Photo 1. (A) A Traditional distillation apparatus and pots for storage of *Jaan* (B). Starter culture of *Balam* balls hanged in a wooden pot (C). Serving pots made with wood of Yew tree (*Taxus baccata* L.). Courtesy: Tribal Heritage Museum, Munsyari.

act as binding agent among this tribal community. In every function, they join together and drink the beverages. *Jaan* is generally prepared during festivals and ceremonies. Women and children are also fond of these beverages but consume them in small quantity during festivals and ceremonies. In marriage ceremonies *Kacchi* is offered by the girl to the guests. *Bhotiyas* not only consume these beverages for amusement but these beverages also play supplementary role in the nutrition of these people. In small quantity, these beverages are also used as medicine for treating different ailments and diseases. *Jaan* is also used to treat fever, dysentery, cough and cold and stomach ailments. *Kacchi* is used in stomach-ache, dysentery, cold and fatigue. *Balam* are also used in cholera and treating weakness of cattle. *Sej* is prepared with residual rice in *Jaan* preparation, eaten as mind booster and treatment of physical and mental fatigue.

These beverages also give financial support to the poor tribal people. They sell *Kacchi* in local areas at cost of 60-80 rupees per litre and *Balam* balls cost is 40-50 rupees per kilograms, *Jaan* cost is rupees 40-60 per litre. It gives financial support to significant number of families residing in remote areas depending on it. The present study also reveals that *Balam* is the potential yeast medium known to the *Bhotiyas* since time immemorial. The commercial exploitation of *Balam* may be explored.

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