

## STUDIES ON ETHNOMEDICINAL PLANTS USED IN RICE-BEER (Handia) BY ‘HO’ TRIBE OF JHARKHAND

SALOMY KUJUR<sup>1\*</sup> AND KUNUL KANDIR<sup>2</sup>

<sup>1\*</sup> Department of Botany, Jamshedpur Women’s College, Jamshedpur, Jharkhand- 831001

<sup>2</sup>University Department of Botany, Ranchi University, Ranchi, Jharkhand- 834008

### KEY WORDS:

Rice-beer, Tribals,  
Handia, Ranu  
tablets, Medicinal  
plants

### Received on:

01.04.2015

### Accepted on:

02.08.2015

**\*Corresponding  
Author**

### ABSTRACT

The local indigenous people of Jharkhand have been making use of the vast plant resources available in the state. They use these plants for their food, fodder and medicinal purposes. Fermented drinks are an important part of their lifestyle. Rice-beer or “Handia” is a traditional fermented drink of the tribals of Jharkhand. It occupies a pivotal role in social, cultural and economic status of the tribal community. In making Handia, the “Ranu” tablets play an important part. Ranu is a kind of starter mixture to initiate the process of fermentation. It is prepared by mixing together the roots, rhizomes, barks and leaves of many plant species. These plants provide many medicinal properties to the drink.

The present study was conducted on ‘Ho’ tribe in West Singhbhum district of Jharkhand. They use the roots of plants *Woodfordia fruticosa* (L.) Kurz, *Ruellia tuberosa* (L.), *Andrographis paniculata* (Burm. F.) Wall. Ex Nees, *Dioscorea bulbifera* (L.) and bark of *Madhuca longifolia* (Koenig) Mac Bride var. *latifolia* Roxb. These are mixed with unboiled rice powder to make Ranu tablets. The medicinal values of these plants thus make Handia a very important drink for them. It helps to rejuvenate and keep them cool during summer. It is also given to children for stomach ache, diarrhea and jaundice. These medicinal plants are therefore, considered sacred and are protected by ‘Ho’ tribe of Jharkhand.

### INTRODUCTION

Medicinal plants have been identified and used throughout human history. Ethno Medico Botany is fast emerging as a new field using the traditional knowledge of the indigenous

people for health care. ‘Jharkhand’ meaning ‘The Land of Forests’ is a state of Eastern India. 28% of the population is dominated by tribals. These local people have been using the vast plant resources for their food, fodder and

medicinal purposes. Fermented beverages are an important part of their life. Rice-beer or Handia is country liquor made from fermented rice. It occupies a pivotal role in the tribal community socially, culturally and economically. A global interest in rice and its fermented product has increased due to its caloric value, unique quality characteristics and high acceptability (Panda et al. 2014). In making handia, 'ranu' tablets play an important role. It is made up of many herbs and various plant parts. In Surguja district of Central India ranu has been documented to be a mixture of roots, barks, rhizomes and leaves of about 20-25 plant species (Kumar and Rao 2007). Ethnobotanical studies were conducted among various tribes in different tribal districts of Odisha. It has been found that six plant species are used by the tribal people for preparation of 'Bakhar' which is generally used for the fermentation of rice (Dhal et al. 2010). Handia is believed to have some medicinal properties also. It has been found to be helpful in the cure of fever, dysentery, diarrhea and gynecological complaints. Different tribes have their own method for preparing handia and the composition of ranu also varies (Angmo and Bhalla 2014)

The aim of the present study was to document the medicinal plants used for the preparation of ranu by the Ho tribe of Jharkhand. This will help to bring to light the consumption method and the medicinal properties of handia.

## MATERIALS AND METHODS

A survey was conducted in West Singhbhum district of Jharkhand which is dominated by Ho tribe. Knowledgeable persons involved in the preparation of ranu were interviewed using questionnaire method. Prior Informed Consent was taken before the interview. Information was collected on methods of preparation, plants and plant parts used and method of consumption. The plant specimens used for ranu preparation were collected, identified and herbarium was deposited to University Department of Botany, Ranchi University, Ranchi.

## RESULTS AND DISCUSSION

The ranu acts as a starter or fermenter and helps in the fermentation of the beverage (Panda et al. 2014). Ranu tablets are mixture of various plant parts and powdered un-boiled rice. The plant species and parts used for the purpose along with local names, family and their common medicinal uses are listed in Table 1. A total of five plant species

belonging to four different families are recorded for ranu preparation.

**Table 1: Phytotherapeutic uses of plants that are used in preparation of ranu tablets**

Sl.No.	Name of the plant	Local name	Family	Parts used	Medicinal uses
1.	<i>Woodfordia fruticosa</i> (L.) Kurz.	Icheba	Lythraceae	roots	Roots used in treatment of rheumatism, dysentery, foot and mouth disease
2.	<i>Madhuca longifolia</i> (Koenig) MacBride var. <i>latifolia</i> Roxb.	Matkam	Sapotaceae	bark	Bark used for diarrhea, fever, chronic tonsillitis, bleeding gums and diabetes
3.	<i>Andrographis paniculata</i> (Burm.f.) Wall. Ex Nees	Chiraita	Acanthaceae	roots	Used in stomach ache, inflammation, pyrexia, and intermittent fevers
4.	<i>Ruellia tuberosa</i> (L.)	Chaulia	Acanthaceae	roots	Roots used in kidney diseases and whooping cough, urinary diseases and stomach problems
5.	<i>Dioscorea bulbifera</i> (L.)	Turamsanga	Dioscoreaceae	roots	Roots used in diarrhea, dysentery and conjunctivitis

These plants are collected from the forest and their parts are dried and mixed with rice to prepare dough for making tablets (Ghosh et al. 2014). These are then dried in a closed room

for 4-5 days on layers of hay so that their moisture gets precipitated out. After that these tablets are kept in sun for another 4-5 days so that they get completely dried. The collection

of plants is done by the male members of the community and the females are responsible for ranu preparation. It is considered to be a very sacred job and the rules and regulations for its preparation are strictly followed.

There are many tribal communities in all parts of India. They have their own beverages which have an important place in their culture. In a study conducted in Goalpara district of Assam, many wild herbs were used in the preparation of rice-beer (Deka and Sarma 2010). About 16 different plant species having medicinal values are used in the preparation of *epop* which is a starter mixture for making *Po: roapong* (saimod), an alcoholic rice beverage of Mising tribe of Assam (Kardong *et al.* 2012). In North East India many ethnic tribes prepare alcoholic beverages using several plants ranging from as many as 2 to 8 or 9. These plants are sometimes common in these tribes (Tanti *et al.* 2010). These and several other reports show that the use of medicinal plants in preparation of traditional beverages is a common practice in these tribes.

The medicinal properties of these plants get incorporated into the drink making it very important for the people. In a study conducted in Meitei communities of Manipur it was reported that the alcoholic beverages help in

regulating poor health condition in women when taken with some plant medicines (Singh and Singh 2014). It is consumed by men and women both. Handia is given to children during stomach ache, diarrhea and dysentery. The men drink it to rejuvenate themselves after a hard day's work on fields. It helps to keep them cool during summer. The ladies drink it as a medicine for curing their gynaecological problems. They also consume it along with rice as gruel to fill their stomach.

### CONCLUSION

Rice-beer or handia is therefore an important drink for the tribal people and is considered sacred. It is consumed during all important celebrations and festivals. Therefore, these people consider the medicinal plants very sacred and protect them. They transfer this knowledge about these plants to their children. Nowadays, handia is losing its authenticity as some people use it for intoxication and mix various chemicals for rapid fermentation. Therefore, strong steps must be taken to protect culture and tradition of tribal people.

### ACKNOWLEDGEMENTS

The authors are thankful to the people of Murum village of Chaibasa for providing information regarding the preparation of ranu. We are also thankful to the Principal,

Jamshedpur Women's College, Jamshedpur and to the Head of the Department, University Department of Botany, Ranchi University, Ranchi, for their co-operation during this work.

## REFERENCES

- Angmo K and Bhalla TC 2014. Preparation of Phabs- an indigenous starter culture for production of traditional alcoholic beverage, Chhang, in Ladakh. *Indian Journal of Traditional Knowledge*, **13(2)**:347-351
- Deka D and Sarma G S 2010. Traditionally used herbs in the preparation of rice beer by the Rabha tribe of Goalpara district, Assam. *I J T K*, **9(3)**:459-462
- Dhal N K, Pattanaik C and Reddy C S 2010. Bakhar starch fermentation – A common tribal practice in Orissa. *Indian Journal of Traditional Knowledge*, **9(2)**:279-281
- Ghosh et al. 2014. Ethnic preparation of Haria, a rice- based fermented beverage, in the province of Lateritic West Bengal, India. *Ethnobotany Research and Applications*, **12**:39-49
- Kardong D, Deori K, Sood K, Yadav R N S, Bora T C and Gogoi B K 2012. Evaluation of Nutritional and Biochemical aspects of Po: *roapong* (saimod) - A homemade alcoholic rice beverage of Mising tribe of Assam, India. *I J T K*, **11(3)**:499-504
- Kumar V and Rao R R 2007. Some interesting indigenous beverages among the tribals of Central India. *Indian Journal of Traditional Knowledge*, **6(1)**:141- 143
- Panda S K, Bastia A K, Sahoo G 2014. Process characteristics and nutritional evaluation of handia- A cereal based ethnic fermented food from Odisha. *Indian Journal of Traditional Knowledge*, **13(1)**:149-156
- Singh P K and Singh K I 2014. Traditional alcoholic beverage, Yu of Meitei communities of Manipur. *I J T K*, **5(2)**:84-190
- Tanti B, Gurung L, Sarma H K and Buragohain A K 2010. Ethnobotany of starter cultures used in alcohol fermentation by a few ethnic tribes of North East India. *Indian Journal of Traditional Knowledge*, **9(3)**:463-466