

## Blooming Beauty: Exploring The Enchanting Buransh Flower and Its Remarkable Health Benefits, Including the Delicious Buransh Juice in Uttrakhand

Aishee Rauthan<sup>1</sup> and Ankur Negi<sup>1</sup>

<sup>1</sup>Veer Chandra Singh Garhwali Uttarakhand University of Horticulture and Forestry,  
Bharsar, Pauri Garhwal, Uttarakhand

<sup>1</sup>Govind Ballabh Pant University of Agriculture and Technology, Uttarakhand

ARTICLE ID: 11

### Abstract

In this modern time when the entire world is facing the health problem due to various reasons Buransh a medicinal herb has emerged as a lifesaving medicinal herb which not only cures the symptoms of arthritis pain, bronchitis, grout, corona virus, liver ailments etc. but also can prevent the infections of cold and cough and many medicinal properties. As the flowers of *Rhododendron arboreum* are rich in phytochemicals, anti-oxidants and have an anti-inflammatory property which helps in boosting of immune system. Buransh also contains an active compound- Quercetin, Rutin and Coumaric acid which are very useful for many health benefits. We can make use of whole buransh tree like its bark, leaves, flower, petals, buds etc. for our uses. Therefore, in this paper we have briefly discussed the health benefits of buransh tree along with its scientific classification and botanical description.

**Keywords:** - *Rhododendron arboreum*, phytochemicals, anti-oxidants, inflammatory, Quercetin, Rutin, Coumaric.

### Introduction:

The Government of India has declared Buransh Tree to be the state Tree of Uttarakhand and its flower as the state flower of Nagaland. Although, it is wild plant but it's very first species with medicinal value i.e. *Rhododendron arborium* was discovered in the Srinagar Forest of Jammu Kashmir in India. Buransh is not only the tree with medicinal properties but also is an evergreen plant and thus can be used throughout the year Rawat *et al.* (2021). Other than medicinal properties we can also use it for food processing and marketing purposes like making refreshing drinks, juices, colouring agents, decorations and firewood Kumar *et al.* (2019).



### Scientific Classification of Buransh:-

<b>Local Name</b>	Buransh
<b>Scientific Name</b>	<i>Rhododendron arboreum</i>
<b>Order</b>	Ericales
<b>Family</b>	Ericaceae
<b>Genus</b>	Rhododendron
<b>Sub genus</b>	Hymenanthes
<b>Species</b>	R.arboreum

Singh, A. (2018).

S.No	Sub species	Colour of Flowers	Location
1	<i>R.arboreum</i> spp. <i>Arboreum</i>	Red	Western Himalayas
2	<i>R.arboreum</i> spp. <i>Cinnamomeum</i>	White, pink or red	Central Himalayas
3	<i>R.arboreum</i> spp. <i>Delavayii</i>	Red	Eastern Himalayas
4	<i>R.arboreum</i> spp. <i>Nilagiricum</i>	Red	Nilgiri
5	<i>R.arboreum</i> spp. <i>Zeylanicum</i>	Orange	Sri Lanka

Seivastava, P. (2012)

### Botanical Description of *Rhododendron arboreum*: -



Figure 1 - Flower of *Rhododendron arboreum*



Figure 2 - *Rhododendron arboreum* tree

- Rhododendron is an evergreen shrub with maximum height of about 15m, distributed all around Western Indian Himalayas.
- The Bole is found to be as much branched and gnarled.
- Bark is found to be soft and rough with reddish brown colour Bhardwaj, A. (2019).
- Oblong- lanceolate rolled crowded towards the end of branches leaves with length 10-20cm and width 3.6cm.
- Young petals are covered with white scales. Lal *et al.* (2019)
- Flower colour varies from pink to white and deep scarlet to red with white markings.
- At lower portion of the tree bright red colour flowers can be found.
- Orwaa reported that Seeds are small like minute as well as dark brown as Madhvi *et al.* (2019).

### **Buransh Juice Preparation-**

#### **Material Requirement-**

1. Large pot- 1
2. Strainer-1
3. Buransh flower
4. Water- 1 liter
5. Sugar- 1 cup
6. Lemon juice- 2-3 tablespoon
7. Mint leaves- 6-8
8. Pitcher- 1

#### **Process-**

1. Follow by rinsing the flowers under tap running water to remove dirt.
2. Take a large pot and add the flowers and water and bring them to boil.
3. Let them simmer for 10 minutes.
4. Now, strain the liquid fine-mesh using a sieve and discard the flowers.
5. Now, pour back the strained liquid in pot and add sugar. Mix the mixture properly until all the sugar dissolves completely.
6. Wait until the mixture cools down to room temperature and then mix lemon juice.
7. Liquid will be transferred to pitcher and will be refrigerated for 1-2 hours.
8. If needed add some ice cubes and serve with mint Akaveeya (2023).

**Buransh Juice Benefits: -**

- 1) **Good for diabetes:** - Buransh flower can be used to treat both type I and type II diabetes as it has anti-diabetic or in-vitro anti-diabetic activity potential. The action of certain glucose enzymes gets restricted due to the presence of hyperin which has an antioxidant property, which results in reducing blood sugar and cholesterol level Bhula, P. (2014).
- 2) **Reduces Inflammation:** - Buransh flower has an anti-inflammatory property of flavonoids, quercetin and rutin which helps in reducing inflammation. As Quercetin helps in reducing the inflammation of prostate, kidney and Urinary bladder while mouth and stomach ulcers can be treated through Rutine Krishna, H. (2012).
- 3) **Prevents Cancer:** - Buransh flower contains the Quercetin and Rutin content which helps in reducing the risk and growth of cancer. As the phytochemicals and anti-oxidant properties of flower avert the damage of body cells which lead to mutation and development of cancer (Nanda, A.)
- 4) **With painkilling ability:** - Paste is made from the leaves of Buransh is applied on the forehead for the relief of headache. Buransh flower can be used to make a drink in summer to avoid dehydration, stomach pain and to get relaxed Chauhan *et al.* (2021).
- 5) **To treat Anemia and Body Weakness:** - As the flower of Buransh contains an iron content which is used to overcome an anemia. As the Buransh flower are rich in nutrients Fe, Ca, Zn, Cu etc. helps in reducing body weakness and have an anti-microbial property which helps in keeping the body healthy Negi, V.S. (2013)



**Figure 3 - Seasonal Tree of Buransh with Flowers**



**Figure 4 - Off-season of Buransh tree with only leaves**





- 6) **To treat Covid-19 infection-** The IIT and ICGB reseaechers have made an experiment on Buransh and identified that the Himalayan Buransh petals contains phytochemicals which shows antiviral activity and is very useful for the treatment of Covid-19 infection as it fights against the virus.Petals of Buransh hot water can be used for drinking juices as it is rich in quinic acid and its derivatives Sharma, G. (2022).

#### **Side Effects of Consuming Buransh Juice: -**

- 1) **Phytochemical:** - Consuming the Buransh Juice in large amount should be avoided as the flowers are rich in phytochemical and may interfere with the action of some medications for heart and diabetes.
- 2) **Poisonous Leaves:** - As the leaves of Buransh Tree are toxic and requires precise invention to make juice available for people for healthy drink purposes Dogra, T. (2021).

#### **Conclusion**

Native people of India is unaware about the uses of Buransh and its medicinal properties, as we can make use of each and every part of buransh tree its leaves, flowers, bark, and petals. Buransh juice, is a refreshing beverage with potential health benefits. It's rich in antioxidants, may boost the immune system and aids in hydration. Although Buransh grows in hilly as well as Northeastern region of India. Bransh has also played a very vital role during the pandemic time of COVID-19. People should know about the medicinal properties of this plant and by the value addition can deliver it to the doorstep of all over the country as well as a foreign market. While traditional uses suggest digestive benefits, more research is needed to confirm its effects.

#### **References: -**

- Akaveeya. (2023). Delicious Buransh Juice: A Refreshing and Nnutritious Beverage. <https://www.bitensip.com/buransh-juice/>
- Bhardwaj, A., (2019) *Development of Beverages from Rhododendron (Rhododendron arboreum Sm.) flowers.*
- Bhula, P., (2014) *Buransh: The delicious and intoxicating rhododendron juice of Uttarakhand.*<https://www.dnaindia.com/lifestyle/report-buransh-the-delicious-and-intoxicating-rhododendron-juice-of-uttarakhand-1963552>

- Chauhan, D.S., Lal, P., Shrama, A.K., (2021) Extraction of *Rhododendron arboreum* Smith flowers from the forest for the livelihood and rural income in Garhwal Himalaya, India. *Scientific Reports* 11: 20844. [www.nature.com/scientificreports](http://www.nature.com/scientificreports) .
- Dogra, T., (2021). *Buransh juice: health and medicinal benefits of consuming this Himalayan flower drink*. [www.onlymyhealth.com](http://www.onlymyhealth.com)
- Krishna, H., Brij Lal Attri, Kumar, A., (2012). Improvised Rhododendron squash: processing effects on antioxidant composition and organoleptic attributes. *Journal of Food Science and Technology* 51(11): 3404-3410. DOI: 10.1007/s13197-012-0855-0 .
- Kumar, V., Sheenam Suri, Prasad, R., Gat, Y., Sangma, C., Jakhu, H., Sharma, M., (2019). Bioactive Compounds, health benefits and utilization of Rhododendron: a comprehensive review. *Agriculture and Food Security*. 8(6): 1-7. <https://doi.org/10.1186/s40066-019-0251-3>.
- Lal, P., Chauhan, DS., (2019). *Descriptive Study of Buransh(Rhododendron arboreum Smith) in the Uttrakhand, India, North West Himalaya*. *Journal of agriculture and Forest Meteorology Research* 2(1): 59-62. [www.scitcentral.com](http://www.scitcentral.com) .
- Madhvi, S.K., Sharma, M., Iqbal, J., Younis, M., (2019). Phytochemistry, Traditional uses and Pharmacology of *Rhododendron arboretum*. *Research Journal of Pharmacy and Technology* 12(9): 4565-4574. DOI: 10.5958/0974-360X.2019.00785.6
- Nanda, A., *Buransh- A health Drink*, [mokshamantra.com](http://mokshamantra.com) .
- Negi, V.S., Maikhuri, R.K., Rawat, L S., Chandra, A., (2013). Bioprospecting of *Rhododendron arboreum* for Livelihood Enhancement in Central Himalaya, India. *An International Journal Of Science and Technology*. 61-70. [www.ewijst.org](http://www.ewijst.org) .
- Rawat, K., Negi, B.S., (2021). *Uttrakhand Single Liner Notes Second Edition, Uttrakhand Rajya k Sbhi Pratik Chihn*.
- Sharma, G., (2022). *Phytochemicals discovered in Himalayan plant Buransh that inhibit COVID-19 virus*. <https://theprint.in/india/phytochemicals-discovered-in-himalayan-plant-buransh-that-inhibit-covid-19-virus/805489/>
- Singh, A., (2018). *Himalayan Royal Juice and Aswagandha Avleha and Granule*. <https://www.researchgate.net/publication/324280104> .
- Srivastava, P., (2012). *Rhododendron Arboreum: An overview*. *Journal of Applied Pharmaceutical Science* : 158-162. [www.japsonline.com](http://www.japsonline.com) .