

The Soul Blooming of Buransh – State Tree of Uttarakhand

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Beauty lies in the eyes of the beholder but in case of Uttarakhand beauty lies in the mountains , rivers , sacred places , traditions and breathtaking flower valleys holding beautiful and medicinal flowers , while talking about flowers a “pahadi” can never forget about “Buransh – State Tree of Uttarakhand” (Figure1). Botanically known as *Rhododendron arboreum* , belonging to family Ericaceae .The onset of spring brings blooming of buransh , one of the most fantastical wonders that you can witness in Uttarakhand . In the backdrop of shining silvery Himalayas , the dark red Buransh flowers depict a heavenly picture .Along with being an identity of the state , it also reflects the culture of Uttarakhand .

In Uttarakhand , Rhodo are mainly found in higher altitude regions with a temperate climate and alpine conditions , mostly found in elevation from 2000 - 4000m . All over there are more than 1000 species of Rhododendrons , in uttarakhand six species are found and among them *Rhododendron arboretum Smith* is the most common one and state tree of uttarakhand .



Figure : 1 Buransh - State Tree of Uttarakhand*

Buransh is an evergreen tree that grows upto the height of 20m and has rough and pinkish brown bark .The brightly colored flowers deep red to pink , bloom from late winter till early summer and are centre of attraction of this tree . The months from January to March marks the blooming season of Buransh in Uttarakhand . The heavenly places where you can witness divine buransh in its full bloom during spring are Valley of Flowers National Park in Gobindghat , Deoria Tal , Chopta , Harsil , Kausani , Barsar , Dodital and Malla among other scenic high altitude locations.

Incredible Health Benefits of Buransh

Flowers of Buransh has abundance of Potassium , vitamin C, iron , calcium , zinc and copper . Along with it phytochemicals like phenols, saponins, xanthoproteic, tannins and flavonoids are found in it. It also contains active compounds like quercetin, rutin, quinic acid and coumaric acid, which benefits health in many ways. From flowers to bark almost all the parts of Rhododendron are medicinal and used in many ways to cure ailments .

- ✚ **For Healthy Heart** - Buransh juice is good for heart health and the circulatory system , it helps prevent heart attacks. The specific flavonoids in rhododendron flowers treat hypertension and prevent blood clots. Rhododendron flower extracts are also beneficial in lowering bad cholesterol and blood pressure.
- ✚ **Remedy for Diabetes** - Rhodo extracts have in-vitro anti-diabetic activity and locals have been using buransh juice as a remedy for Type-1 and Type-2 diabetes .
- ✚ **Reduce Inflammation-** Buransh flowers contain flavonoids that help in easing inflammation especially in the prostate, kidney and urinary bladder and treats mouth and stomach ulcers.
- ✚ **Fight Pain** - Rhododendron leaves were traditionally used to treat headaches. Juice extracted from buransh flowers is used locally as an effective remedy for stomach ache and leaves to treat headaches .
- ✚ **SkinNourishment** - Buransh extract prevents ageing and restores skin glow. It is a strong antioxidant and protects the skin from the harmful effects of sunlight and pollution. It has anti-inflammatory and anti-bacterial properties that treat acne, eczema, rashes and other skin inflammations .

Buransh Flowers Against SARS-CoV2

While vaccination is one way for providing the body with the fighting power against the virus, there is a worldwide search for non-vaccine medicines that can prevent human body from viral invasion .A Group of biologists at Indian Institute of Technology (IIT) Mandi and New Delhi's International Center for Genetic Engineering and Biotechnology (ICGEB) carried out a research which claimed that photochemical found in buransh can help in the treatment of COVID-19 infection , Buransh flowers possess antiviral properties with a potential to be used in the treatment against SARS-CoV2 . Their research was published in the journal Biomolecular Structure and Dynamics. “ The cells infected with SARS-CoV2 virus, when subjected to this specially prepared Buransh extract in a dose-dependent manner , were kept under an incubation of 48hrs . It was found that the viral multiplication was affected at a concentration of 1mg/ml , nearly 80 per cent inhibition was achieved. ” said Masakapalli , Associate Professor of BioX Centre at IIT-Mandi .Ranjan Nanda, Translational Health Group, International Centre for Genetic Engineering and Biotechnology, said, “We have profiled and investigated the phytochemicals of *Rhododendronarboreum* (Figure 2) petals sourced from Himalayan flora and have found it to be a promising candidate against the Covid virus”.



Figure 2 : *Rhododendronarboreum**

Products From Buransh

After Blooming Rhodo flowers start falling on the hill sides , which are collected for making various of products from buransh . Due to its medicinal properties and sweet nectar it is loved by locals in the preparation of locally relished savouries . It is used for making

refreshing drinks , parathas , chutney , pakoras , locally brewed wine and more . The entire process from collecting flowers , carefully picking out the petals (Figure 3) and using them for preparation of various products , everything is done by hand by local pahadi village women.



Figure 3 : Manually Picking of Petals*

- ✚ **Buransh Juice and Buransh Squash** – Buransh Juice and Squash(Figure 4) is made from buransh flower and is considered as the welcome drink of Uttarakhand . The drink has calming and soothing effect on the body and benefits like anti-diabetic, antioxidant , anti-inflammatory , anti-microbial , heart and liver protective property of buransh flower . It is also used to stop excessive bleeding in the female during menstruation.



Figure 4 :Buransh Juice and Squash*

✚ **Buransh Chutney** – Buransh Chutney is also made from the petals of the flower and has a sweet-sour taste . Taken along with rice , rotis or paranthas . It is also used to treat seasonal sickness , ease the guts and soothe the body during weather transition .

✚ **Buransh Tea** – Buransh Tea is made from flower petals , it is a light herbal drink that is used for treating body inflammation .

Buransh holds a special place in Uttarakhand along with being an identity of state , it also reflects the beauty and culture of Uttarakhand . Every Year The Buransh Mahotsav is celebrated in Kausani during the onset of spring where the beauty of Buransh flowers are loved , celebrated with full enthusiasm . The festival is all about celebrating and promoting nature's creation Buransh . Not just medicinal purpose , buransh has economic and household uses as well . Conservation and plantation of Buransh tree in large numbers can help fight the global warming phenomenon for maintaining the ecological balance in the hills. Rhododendron leaves are useful as fertilizer, a fast decomposing compost fertilizer. Buransh flower has ample pollen and is a centre of attraction for the honey-bees. They extract honey from the flower . The Buransh flower is also considered to be lucky for worshipping the Gods . Buransh promotes tourism in Uttarakhand .

It's honour of our state Uttarakhand to have such pride in lap of mountains and I wish that our pride gets honoured in every part of our nation and world as hidden gem of Uttarakhand .

Reference

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