

Chyura

A Himalayan Kalpavraksha

Many people living in mountainous regions still depend on forests for their daily needs. The increasing pressures upon forests and natural resources, due to exponential population growth, are contributing to a continuous decrease in forest cover. The overwhelming burden on forests can be reduced by introducing multipurpose trees which not only fulfil the needs of forest-adjacent communities but also provide options for income generation. Chyura is one of such multipurpose species which can be planted easily without any extra effort.

The Churya tree belongs to the Sapotaceae family, composed of 8 tropical species, divided in 6 genera. The tree is scientifically known as *Diploknema butyrcea* (Rxb.) and is found in the Kumaun region of Uttarakhand. It is known by many names in different places such as *Phulwara*, *Phulwa*, *Bhalel* and *Churya* in North India, *Gophal* in Bengal, *Chyuri* in western Nepal and *Yosh* in the Chepang language. The tree is also known as Indian butter tree because of the richness of oil in its seeds.

Access and Benefit Sharing (ABS) Partnership Project

Strengthening of Access
and Benefit Sharing
Mechanism with
Biodiversity Management
Committees (BMCs) in
Kumaun, Uttarakhand

Districts: Almora,
Pithoragarh





As Chyura is a multipurpose tree, it is also known as Kalpavriksha. Many useful items are derived from the tree which serve as a source for many products such as seeds for oil, flower nectar for honey, wood for small timber, fuel and furniture, and fodder for cattle. Some of its parts are also used as medicines and pesticides. Above all, the tree is prominent in rural economy and is continuously becoming an asset to rural livelihood as several new uses of the Chyura tree are being developed and explored for the future.

Physical Characteristics of the Chyura Tree

The Chyura tree needs sunshine and has a good tolerance to the cold (Jackson, 1987 and Campbell, 1983, in Valussi, 2008). It's a fast-growing, deciduous, medium-size tree, around 20 meters in height with a girth of 2-3 meters. Its leaves are thick, dark green in colour and measure about 6-12 inches in length and 3-6 inches in width. Its flowers are white and contain a sweet, sticky and fragrant substance, while the fruits are berry-like, initially green, turning light yellow when ripe. They are ellipsoid in shape and measure 1-1.5 inch in length. The fruit contains a sugary pericarp and 1-2 kernels with a glossy dark brown shell about 0.75-1 inches long. It contains a white and light-yellow seed, rich in fats and oils, which has a bitter taste. These are tree-borne oil seeds that account for 11% to 15% of the fruit weight. The seeds are composed of proteins, saponins and fat (60 to 70% of the seed) (Valussi, 2008).

Geographical Distribution of the Chyura Tree

The Chyura tree is native to Nepal and is spread all over the sub-Himalayan region, from Kumaun to Nepal, Sikkim and Bhutan in the east. The tree is found along the rivers and shady valleys at the foothills between 500 to 1600 meters above sea level. Apart from sub-Himalayan region, the species is also found in tropical, moist-deciduous and semi-deciduous forests of the Andaman and Nicobar Islands. In its natural habitat, the mean annual rainfall ranges from 1000-2000 mm per annum whereas the temperature varies from 24°C to 30°C.





Chyura Honey

Chyura flowers are optimal forage for honey bees. The flowers possess a white, sticky and fragrant substance which is collected by bees. While most of the honey is sold by beekeepers in nearby villages, they have also started selling it through the *Pancheshwar Ghati Self Reliant Cooperative* with appropriate value addition by manual extraction and packaging. The cost of 1 kg Chyura honey is approximately Rs. 600.

Nutritional Value of Chyura Oil

Chyura oil is quite nutritious as it contains 5-20% protein, 30% carbohydrates and 3.8% ash. Oil produced from Chyura seeds is known as Phulwari Ghee. This oil is as thick as ghee (butter) and solidifies at 30° C temperature.

Chyura Ghee and Soap

Most of the ghee extracted from Chyura seeds is used by villagers for their own consumption. However, the surplus is sold to nearby villages and Pithoragarh town. *Pancheshwar Ghati Self Reliant Cooperative* is now outreaching to new customers, buyers and markets. The value addition of the ghee has been initiated to manufacture handmade soap after conducting trainings for it. Apart from participating in various exhibitions and fairs, several cosmetic in-

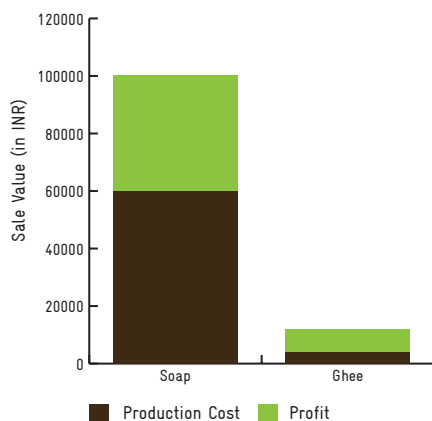
dustries have been contacted and the potential for its supply has been explored.

CHEA is in process of preparing market linkages for the different products of Chyura. Nuskaa, a Noida based cosmetic company has agreed to buy the soaps made by Chyura. The manufacturing will be upscaled after the feedbacks.

Demand for Chyura butter comes from *Manorama Industry Limited*, Raipur (Chhattisgarh). The company basically uses Phulwari ghee for producing cosmetics and showed their interest in Chyura butter after they were provided with detailed information on it.

Cost of Chyura ghee after value addition (for 100 kg ghee)

Uses of Chyura



- The ripe fruits are sweet in taste.
- Villagers residing in the Chyura dominant areas traditionally practice beekeeping. On average a bee hive produces up to 7-8 kg of honey every four months. The honey is white in colour and has medicinal properties.
- The flower of Chyura contains a sweet, sticky and fragrant substance, therefore, the nectar is also used for producing jaggery.
- Oil and butter can be extracted from Chyura seeds. Approximately 600 grams of oil can be extracted from 1 kg of seeds.
- While the oil extracted from Chyura's seed is edible, it can also be used in producing soap, ointment, candles and various other daily use items.
- The residue from the seed processing can be used as a fertilizer. It contains insecticidal properties, making chyura an efficient eco-friendly insecticide as well.
- The wood is used as fuel.
- Chyura leaves are used for producing plates and bowls.
- The leaves also serve as fodder for cattle.



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