

“BOTANE” WALL MAGAZINE 2020

Department of Botany, Pragjyotish College

BOTANY



Introduction

Introduction text describing the scope of the project.



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DEPARTMENT OF BOTANY

বাম্বা Baobah



INTRODUCTION

Bamboos are the most productive and fastest growing species on the planet. It covers about 37 million hectares which is just about 1% of the forest world wide. Bamboo has several advantages in terms of sustainability and carbon fixing capacity compared to the other fast growing species. Bamboo is well known as poor men's timber. India is the second highest bamboo producing country in the world.

There are about 92 genus and about 1000 species of bamboo, out of which 38 genus of bamboo occurs naturally in Assam. Some of the species found in Assam are Bambusa assamica, Dendrocalamus giganteus, Melocanna baccifera, etc.

Bambusa galiliana and Melocanna arundinosa are the species reported only from Assam.



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Bambusa balcooa: ডালুকা বাঁহ (Bhaluka Bam)

Bambusa balcooa are evergreen, tall, but and caespitose. It has 35 pairs of chromosomes.

• Culms: 15-25m high and 8-16cm in diameter

• Leaves: 15-38cm long, 2.5-5cm broad, rounded at the base.

• Flowering glumes: Larger than the empty glumes, ovate-acute, many-nerved, ciliated on the edges.

• Distribution: It is broadly distributed in India (Assam), Bihar, West Bengal, Manipur, Arunachal Pradesh.

• Widely cultivated all over Assam and now found in wild state.

• Uses: It is probably the best and strongest species for building purposes and is highly esteemed in Calcutta, used for scaffolding.

• In Assam preparation of pickles from shoots is a cottage industry and several organisations.

• The communities inhabiting the Brahmaputra valley use the tender shoots for preparing an edible preparation called Kharicha.



Angkita Bhattacharya

Bambusa tulda: জাতি বাঁহ (Jati Bam)

Bambusa tulda are evergreen or deciduous, caespitose, tall, gregarious forming a central tuft. It has 35 pairs of chromosomes.

• Culms: 10-23m high, 5-10cm in diameter, glabrous and green.

• Leaves: 15-31cm long, 2-4cm broad and they are linear-oblong or linear-lanceolate.

• Flowering glumes: Many-nerved, glabrous striate.

• Distribution: It is broadly distributed in India (Assam), Bihar, Meghalaya, Mizoram, Nagaland, Tripura, Bangladesh, Indonesia, Myanmar, Singapore, etc.

• Uses: This species is extensively used throughout Northeast, India for covering the houses, scaffolding, etc. Tender shoots are commonly used for making excellent pickles. It is used for pulp and paper production and is suitable for manufacturing of wrapping, writing, painting, etc.

In Thailand the handicrafts are made of this bamboo.

In Arunachal Pradesh a flute, called locally as 'Eloo', is made for use during 'Dree' festival.



- Sikha Verma

Bambusa pallida: বিজুলী বাঁহ (Bijuli Bam)

Bambusa pallida are graceful evergreen or semi-deciduous, caespitose, thickly growing.

• Culms: 13-20m in height, 5-8cm in diameter

• Leaves: 10-22cm x 1-2.5cm, linear-lanceolate, rounded at the base.

• Flowers not seen.

• Distribution: It is distributed in India (Assam), Meghalaya, Mizoram, Nagaland, Sikkim.

• Uses: Mainly used for house buildings, baskets and mat making. In Tripura this bamboo is used for making toys, wall plates, screens, wall hangers etc. In Assam it is used for house buildings, making a basket, hand fans, mats etc.



- PINKI SINHA

Economic purposes of Bamboo

The "Green Gold" of 21st century was commonly known as "Poor Man's Timber". Bamboo played a significant role in human society since time immemorial. Besides having various traditional uses bamboo is also being used for several economic purposes in the modern society.

According to Technology, Information Forecasting and Assessment Council (TIFAC), there are about 200 recorded uses of bamboo and based on these uses bamboo has enormous potential of generation employment and income. Besides its role as a material for consumer products, bamboo has greater potential as industrial raw material. It is also used as building and construction materials. Bamboo is being consumed by pulp and paper industries. It is also used as medical product since the plant has high levels of acetylcholine which acts as neurotransmitter in animals and humans.

Markets are growing and offer new opportunities for promotion of bamboo as alternative to wood and also other products. Production of bamboo at very high number will lead this golden product up to its efficient level, will increase the national income and also increase employment opportunities.

-Anandita Dhan

Bambusa

Arisen from the spirited soil gaining the extent of the luscious green life, I hover towards the imperial sky watching the distance of the courteous clean vibe.

Drifted my leafy twigs by the hustling breeze; akin to the blades of my clutching hands, yet I was fated to be welded to serve the masters of the masters of my touching lands.

Folded and moulded as much to carve the desired trends; amazingly quite diversa,

yet I speak unspoken ally of the

CORONA

Each morning with great anticipation we go through the numerous columns in the newspaper, hoping to find evidence of the procurement of the vaccine or medicinal therapy for COVID-19. There are barely any countries that are left untouched by the COVID-19 Pandemic. It is one of the greatest Public health threats to date that needs to be controlled as soon as possible.

There are no vaccines or drugs till date various researches have been carried out throughout the world to develop antiviral drugs effective against SARS-COV-2 responsible for COVID-19. Natural products capable of inhibition on altering the configuration of structural

proteins (spike glycoprotein), non-structural proteins (3-chymotrysin like protease, Papain-like Protease, helicase and RdRP) and accessory proteins coded by SARS-COV-2 genome are needed to be explored usually natural products could be a safe, secure different compounds (flavonoids, polyphenols, alkaloids, terpenoids).

The potential medicinal plants that can be used in therapeutic of SARS-COV-2 with their active phytochemicals are -

Phytochemical name	Plant source
1. Chloroquine, Hydroxychloroquine	<u>Cinchona officinalis</u>
2. Myricetin-3- β -D glucopyranoside	Tea tree (<u>Camellia Sinesis</u>)

- Mruganka Shekhar

Day to Day use of bamboo

The products made out of bamboo are being used daily since ancient times and are in use till date. Some products of bamboo used dally by assamese as well as north eastern people are :

- * **Pasi (bamboo baskets)**: Bamboo baskets come in various shapes and sizes and they differ from one tribe to another in terms of shape and style.
- * **Jakai**: The Jakai is a species of wicker work shovel that is either dragged along the bottom or placed on the water bed to catch the small fishes which take refuge in it when the weed is trampled.
- * **Khaloi**: It is used for collecting fishes during hand-net fishing. It is shaped like an earthen pitcher.
- * **Kula**: It is made of flat bamboo slips for winnowing purposes in different sizes and shapes.
- * **Bisoni**: It is a hand fan made out of bamboo.

Apart from the above mentioned product, there are various other products like Polo, chepa, etc. are been used. - Greetashree Sarma.

পান্থ্যৰ সহায়,
অসমৰ পুষ্টিভিত্তিক
ভোজ্যৰ বিশিষ্ট সুখৰি!
সেইবাবে ক'ত দুখি অতিত শৰকা
আধুনিকতাৰ স্বাক্ষৰ ভোজ্যৰ,
স্বকীয়তা অশৰণ !

- জিতু দাস

Did you know

- ☉ Since 2009, 18th of September is celebrated as World Bamboo day
- In 2020 theme of WBD is 'BAMBOO NOW'

VERY NICE.
KEEP IT UP.

MAMU
14/12/2020