

**Commercial Bamboo
Varieties and Their
Production in Different
States of
India**

Species of Bamboo



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Types of Bamboo

Sympodial & Monopodial

- **Sympodial bamboo forms clumps, grows as a cluster in one spot – clump forming**
- **Monopodial bamboos or running bamboos, have thin rhizomes which extend horizontally underground for long distances.**



Diversity in species and growth forms

- Globally there are 110 genera and 1500 species, includes herbs, shrubs, tree forms and climbers
- In India there are 23 genera and 136 species with more than 50% in north eastern region

■ **Bamboo
Species in
Forest
Departments
Bamboo
Garden
Amravati,
Maharashtra**

Bamboo Species

| Sr. | Name of genera | Sr. | Sr. | Name of species |
|-----|----------------|-----|-----|--|
| 1 | <i>Bambusa</i> | 24 | | |
| | | 1 | 1 | <i>Bambusa affinis</i> |
| | | 2 | 2 | <i>Bambusa assamica</i> |
| | | 3 | 3 | <i>Bambusa balcooa</i> |
| | | 4 | 4 | <i>Bambusa bambos</i> |
| | | 5 | 5 | <i>Bambusa bambos var gigantea</i> |
| | | 6 | 6 | <i>Bambusa burmanica</i> |
| | | 7 | 7 | <i>Bambusa cacharensis</i> |
| | | 8 | 8 | <i>Bambusa dissimulator</i> |
| | | 9 | 9 | <i>Bambusa glaucescens</i> |
| | | 10 | 10 | <i>Bambusa jaintiana</i> |
| | | 11 | 11 | <i>Bambusa longispiculata</i> |
| | | 12 | 12 | <i>Bambusa multiplex</i> |
| | | 13 | 13 | <i>Bambusa multiplex Alphonse karr</i> |
| | | 14 | 14 | <i>Bambusa nana</i> |
| | | 15 | 15 | <i>Bambusa nutans</i> |
| | | 16 | 16 | <i>Bambusa pallida</i> |
| | | 17 | 17 | <i>Bambusa polymorpha</i> |
| | | 18 | 18 | <i>Bambusa striata</i> |
| | | 19 | 19 | <i>Bambusa teres</i> |
| | | 20 | 20 | <i>Bambusa tulda</i> |
| | | 21 | 21 | <i>Bambusa tulda var striata</i> |

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| | | | | |
|----------|-----------------------------|-----------|----|-----------------------------------|
| | | 22 | 22 | <i>Bambusa ventriecosa kimmei</i> |
| | | 23 | 23 | <i>Bambusa vulgaris</i> |
| | | 24 | 24 | <i>Bambusa wamin</i> |
| 2 | <i>Dendrocalamus</i> | 11 | | |
| | | 25 | 1 | <i>Dendrocalamus asper</i> |
| | | 26 | 2 | <i>Dendrocalamus brandisii</i> |
| | | 27 | 3 | <i>Dendrocalamus giganteus</i> |
| | | 28 | 4 | <i>Dendrocalamus hamiltonii</i> |
| | | 29 | 5 | <i>Dendrocalamus latiflorous</i> |
| | | 30 | 6 | <i>Dendrocalamus longispathus</i> |
| | | 31 | 7 | <i>Dendrocalamus membranaceus</i> |
| | | 32 | 8 | <i>Dendrocalamus sikkimensis</i> |
| | | 33 | 9 | <i>Dendrocalamus somdevai</i> |
| | | 34 | 10 | <i>Dendrocalamus strictus</i> |
| | | 35 | 11 | <i>Dendrocalamus yunnanensis</i> |
| 3 | <i>Dinochloa</i> | 2 | | |
| | | 36 | 1 | <i>Dinochloa andamanica</i> |
| | | 37 | 2 | <i>Dinochloa maclelandii</i> |
| 4 | <i>Gigantochloa</i> | 8 | | |
| | | 38 | | <i>Gigantochloa albociliata</i> |
| | | 39 | 2 | <i>Gigantochloa atroviolacea</i> |
| | | 40 | 3 | <i>Gigantochloa atter</i> |
| | | 41 | 4 | <i>Gigantochloa macrostachya</i> |
| | | 42 | 5 | <i>Gigantochloa manggong</i> |
| | | 43 | 6 | <i>Gigantochloa nigrociliata</i> |

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|----|------------------------|----|---|---------------------------------------|
| | | 44 | 7 | <i>Gigantochloa rostrata</i> |
| | | 45 | 8 | <i>Gigantochloa verticillata</i> |
| 5 | <i>Guadua 1</i> | | | |
| | | 46 | 1 | <i>Guadua angustifolia</i> |
| 6 | <i>Melocalamus 1</i> | | | |
| | | 47 | 1 | <i>Melocalamus compactiflorus</i> |
| 7 | <i>Melocanna 1</i> | | | |
| | | 48 | 1 | <i>Melocanna baccifera</i> |
| 8 | <i>Ochlandra 5</i> | | | |
| | | 49 | 1 | <i>Ochlandra ebracteata</i> |
| | | 50 | 2 | <i>Ochlandra scriptoria</i> |
| | | 51 | 3 | <i>Ochlandra setigera</i> |
| | | 52 | 4 | <i>Ochlandra travancorica</i> |
| | | 53 | 5 | <i>Ochlandra travancorica hirsuta</i> |
| 9 | <i>Oxytenanthera 2</i> | | | |
| | | 54 | 1 | <i>Oxytenanthera abyssinica</i> |
| | | 55 | 2 | <i>Oxytenanthera parvifolia</i> |
| 10 | <i>Phyllostachys 5</i> | | | |
| | | 56 | 1 | <i>Phyllostachys assamica</i> |
| | | 57 | 2 | <i>Phyllostachys aurea</i> |
| | | 58 | 3 | <i>Phyllostachys mannii</i> |
| | | 59 | 4 | <i>Phyllostachys nigra</i> |
| | | 60 | 5 | <i>Phyllostachys sulphurea</i> |
| 11 | <i>Pseudosasa 1</i> | | | |
| | | 61 | 1 | <i>Pseudosasa japonica</i> |

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| | | | | |
|----|---------------------------|----|---|--|
| 12 | <i>Pseudoxytenanthera</i> | 3 | | |
| | | 62 | 1 | <i>Pseudoxytenanthera bourdillonii</i> |
| | | 63 | 2 | <i>Pseudoxytenanthera ritcheyi</i> |
| | | 64 | 3 | <i>Pseudoxytenanthera stocksii</i> |
| 13 | <i>Sasa</i> | 2 | | |
| | | 65 | 1 | <i>Sasa fortunei</i> |
| | | 66 | 2 | <i>Sasa fortunei variegated</i> |
| 14 | <i>Schizostachyum</i> | 5 | | |
| | | 67 | 1 | <i>Schizostachyum beddomei</i> |
| | | 68 | 2 | <i>Schizostachyum brachycladum</i> |
| | | 69 | 3 | <i>Schizostachyum dullooa</i> |
| | | 70 | 4 | <i>Schizostachyum pergracile</i> |
| | | 71 | 5 | <i>Schizostachyum polymorphum</i> |
| 15 | <i>Shibataea</i> | 1 | | |
| | | 72 | 1 | <i>Shibataea kumasaca</i> |
| 16 | <i>Thyrsostachys</i> | 2 | | |
| | | 73 | 1 | <i>Thyrsostachys oliveri</i> |
| | | 74 | 2 | <i>Thyrsostachys siamensis</i> |
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***Commercial
Bamboo Species***

Bambusa bambos var gigantea

Babusa arundinacea

Local names, Katang, Assamese : Kotoha
Bengali Ketua, Oriya : Daba Tamil : Mungil
Malayalam : Pattil, Mullumula

Height : 30 m

Diameter : 15-18 cm

internodes' length : 30-45 cm

Wall thickness : 1.5-2.5 cm

Different flowering cycles, mostly 45 years.

Seeds : 60000 – 75000/kg.

Viability : 6 months . Seeds storable

Planting stock : through Seed, Vegetative
methods and tissue culture

Plantation about 204 plants/ha(7x7)

Altitude up to 1000m.

Thrives well in riparian zone, rich moist soil

Yield : 50 t/ha/year

Structural bamboo, Used for Pulp,
construction, archery handicrafts. furniture,
Young shoots and seeds edible

Native : Madhya Pardesh, Maharashtra &
Most Part of India.

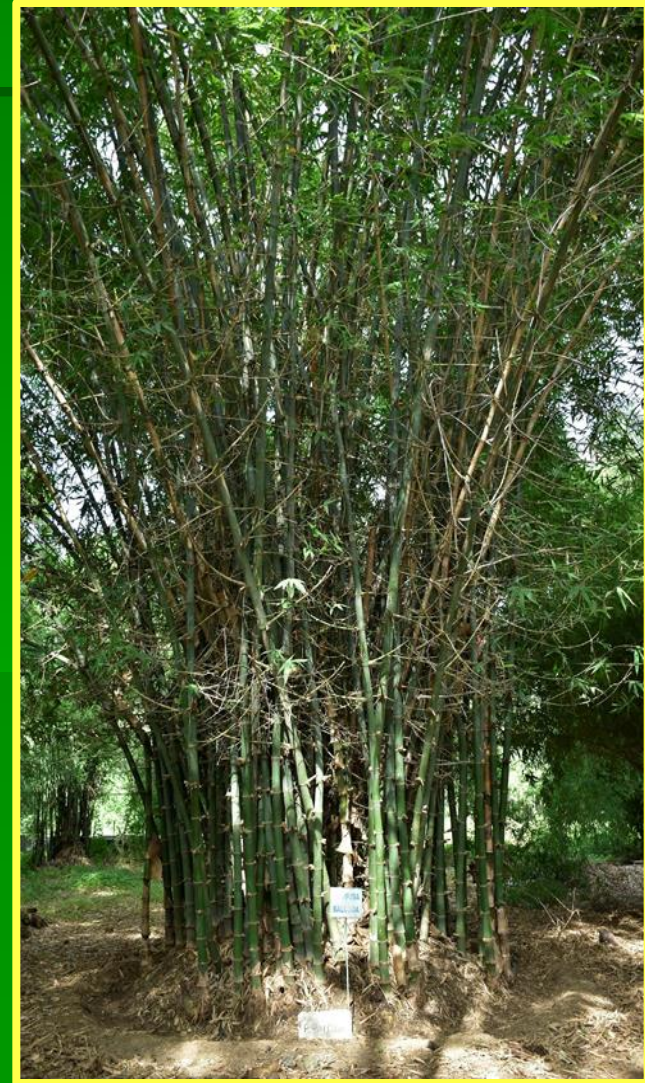


Bambusa balcooa

- *B. balcooa* Roxb.
- Local names, Bhima
- Assamese : Baluka Bengalese: Balku bans
- Tripura : barak Malayalam Assam Mula

- Height: 16-23 m, Diameter : 8-15 cm
- Internode length : 20-45 cm
- Wall thickness : 1.9-2.5 cm
- Flowering cycle : 35-45 years
- Seeds not reported
- Planting stock by rooting culm, branch cuttings & tissue culture
- Planting : 400 plants/ha
- Maturity period : 5 years
- Grown up to an altitude of 600m. Prefers heavy textured soil with good drainage
- Yield : about 50 t/ha/year

- Very strong structural bamboo used for, pulp, handicrafts, agarbathi, household.



Bambusa nutans

***B. nutans* Wall ex. Munro**

Local names

Assamese: Jatia bah Bengalese Makla,

Hindi: Malabans

Oria: Badia bansa

Height: 15-20m Diameter: 5-10 cm

Internode length: 25-45 cm

Wall thickness: 1-1.5 cm

Flowering cycle 35 years

Planting through seeds, vegetative propagation and tissue culture

Planting 400plants/ha

Altitude from 600-1500 m

Well drained sandy loam to clayey loam soil

Yield: about 30-40 tones/ha/year

Used for poles, paper landscaping and many local uses as agricultural implements and household items.



Bambusa vulgaris green

***B. vulgaris* Schrad.**

Height : 8-20 m
Diameter : 5-10 cm
Internode length : 30-45 cm
Wall thickness : 0.7-1.5 cm

Flowering not reported and no seed set
Planting stock by vegetative methods
and tissue culture

Altitude up to 1200 m

Moist soil in periphery of cultivated
land and foot of the hills. Frost and
saline tolerant

Planting 400 plants/ha

Yield 40t/ha/year

Used for pulp, scaffolding, handicrafts,
ornaments, edible shoots, leaves
medicinal



Dendrocalamus asper

D. asper (Schultz.) Back. Ex.. Hyena
Common Names : Sweet bamboo

Height : 20-25m

Diameter : 8-12 cm

Internode : 40-50 cm

Wall thickness : 1.1-2.0 cm

Flowering cycle : 100 years

Propagation : Through seeds, rooting of cuttings and tissue culture.

Plantation 400 plants/ha

Sandy clay loam or shallow laterite soil mixed with fine sandy clay. Good drainage is essential

Yield : 50t/ha/year

Uses : Poles, pulp and edible shoots



Dendrocalamus hamiltonii

- *D.hamiltonii* Nees and Arn.
- Common Name : Drooping bamboo
- Local names
- Assamese : Kako Bans Manipuri : Unep
- Mizoram : Phulrua

- Height : 12-20 m, Diameter : 10-19 cm
Internode: 30-50 cm, Wall thickness : 1.2-1.3 cm
- Flowering cycle 35-45 years
- Altitude up to 1500 m
- Propagation by seed, vegetative propagation and tissue culture.
- Planting 400 plants/ha
- Finer textured soil in moist areas

- Used for wall, posts, basketry, weaving, archery, pulp, rhizome adulterated for rhinoceros horn, young shoots edible.



Dendrocalamus giganteus

***D. giganteus* Munro**

Common Name: Giant bamboo

Assamese : Worra Manipuri: Maroobob

Malayalam : Anamula

Height : 30 m, Diameter : 20-30 cm

Internode : 35-40 cm

Wall thickness : 1.8-2.0 cm

Flowering cycle : 40 years

Seed set poor Seed weight 20000/kg

Propagation by seed, rooting cuttings and tissue culture

Planting 100 plants/ha, Altitude up to 1200m

Yield: 50 tonnes/ha/year

Rich loam soil

Used for pulp and a variety of domestic uses such as boat mast, building, construction. Shoots are edible



Dendrocalamus brandisii

***D. brandisii* (Munro) Kurz**

Local names

Bengali : Bhulka

Manipuri : Wanan

Malayalam : Bilathimula

Height : 20-33 m

Diameter : 13-20 cm

Internode : 30-60 cm

Wall thickness : 1.7-3 cm

Flowering cycle : 45-50 years.

Propagation : By seeds, vegetative propagation and tissue culture

Plantation 280 plants/ha

Altitude: Up to 1300m

Yield: about 50t/ha/year

Found on calcareous rocks

Used for basketry, construction, pulp and young shoots are edible



Dendrocalamus strictus

***D. strictus* (Roxb.) Nees**

Local names

Bengali : Karali Gujarai Nakur bans

Marati Narvel Oriya : Salia

Tamil : Kalmungil Telugu Sadanap venduru

Malayalam : Kallan mula, Manipuri: Unan

Height: 8-16 m Diameter : 6-10 cm

Internode : 30-45 cm

Wall thickness : 0.5 to 2.00 cm

Base solid, Cultivated widely, most parts of India

Flowering cycle : 45-55 years

Seed weight: 25000-30000/kg. Seeds storable

Planting stock by seed, vegetative methods including tissue culture,

Planting 400 plants/ha

Yield: 2000 bamboos/ha/year

Used for pulp, construction, musical instruments, furniture, handicrafts. Leaves medicinal and shoots edible.



Dendrocalamus membranaceus

***D. membranaceus* Munro**

Height : 20-24m

Diameter : 6-10cm

Internodes : 22-38 cm

Wall thickness : 0.8-1.2 cm

**Moist forests and low lands,
tolerates arid and barren condition.**

Laterite and limestone

**Planting stock through vegetative
methods including tissue culture**

Planting 280 plants/ha

**Used for construction, pulp,
chopsticks, handicrafts and shoots
are edible**



Bambusa tulda

***B. tulda* Roxb.**

Local names

Assamese : Jati Bengali : tulda Jowa

Hindi : Deobans, Peka

Height : 15-20 m

Diameter 5-10 cm, Internode length 40-70 cm

Wall thickness: 0.8-1.5 cm

Flowering cycle : 30-60 years

Seeds : 20000-25000/Kg

Viability for 45 days, Seeds storable

Propagation by seed and vegetative methods.

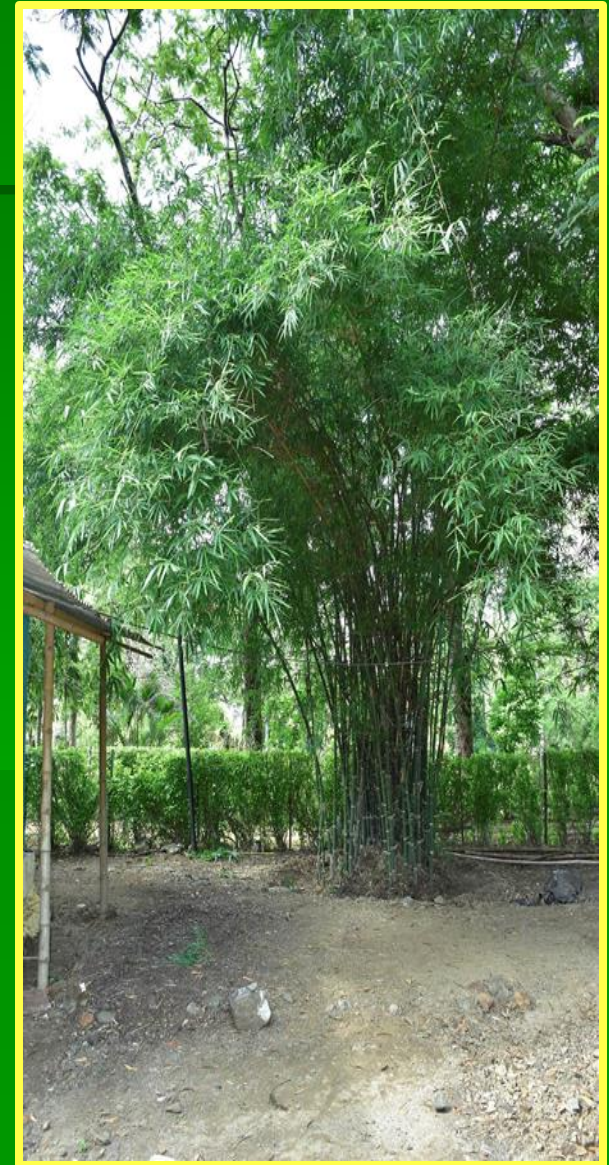
Planting : 280 plants/ha

Altitude up to 1500 m

Yield: about 30 t/ha/year

Finer textured soil

**Used for pulp, construction, agarbathi sticks,
shoots edible and leaves medicinal**



Thyrsostachys oliveri

***T. oliveri* Gamble**

Common name: Rangoon bamboo

Malayalam: Korana, lathimula

Height: 15-25 m Diameter: 5 cm

Internode: 40-60 cm

Wall thickness: 1-1.2 cm, solid at base

Flowering cycle 48-50 years

Planting stock by seeds and vegetative propagation including tissue culture

Planting 400plants/ha

Used for construction, poles, furniture, basketry and young shoots are edible



Pseudoxytenanthera stocksii

Pseudoxytenanthera stocksii; *Oxytenanthera stocksii*

Common Name : Malabar bamboo, Konkan bamboo

Local Names

Marati: Manga, Chivarka

Kannada : Marihala Biduru, Oor seme

Height : 10-20 m, Diameter 5-8 cm

Wall thickness : 0.2-1.5 cm base solid

Internode length : 20-30 cm

Deep loamy soil up to an altitude of 600m

Sporadic flowering observed and no seed set

Planting stock through vegetative propagation and tissue culture

Planting 400 plants/ha

Yield 2000 poles/ha/year

Used for construction, furniture, basketry, agarbathi, handicrafts, food containers



Melocanna baccifera

***M. baccifera* (Roxb) Kurz**

Local names

Assamese : Tarai Bengali: Muli

Manipuri Moubi

Height 10-20m Diameter : 3-7cm

Internode : 20-25 cm

Flowering cycle : 45 years

**Seeds size and shape variable, 10-20 seeds/kg
viable for 2 to 3 weeks**

**Well watered sand clay loam, alluvial soil, well
drained residual soil of pure sand and low sand
stone hills.**

Produces diffuse and open type clumps

**Planting stock through seed and vegetative
propagation**

Planting 400plants/ha

**Used for flute making, weaving, paper pulp, floats
for transporting, handicrafts, shoots and seeds
edible**



Dendrocalamus longispathus

***D. longispathus* Kurz**

Local names

Assamese Bulka Khang

Manipuri: unal Tripura: Rupai

Height 10-18 m Diameter of 6-10 cm

Internode 40-60 cm

Wall thickness: 0.7-1.2 cm

Flowering cycle: 30-35 years

Cultivated in many locations

No of Seed per kg 55,000/kg

Planting stock by seed, vegetative methods.

Planting 400 plants/ha

Used for pulp, landscaping, curtain, agarbatti, tooth picks, making baskets and containers.



Bambusa polymorpha

B. polymorpha Munro

Local names

Assamese: Jama betwa Betwa

Bengali: Betua, Hindi: Narangi bans

Height: 16-25 m

Diameter: 8-15 cm

Internode length: 40-60 cm

Wall thickness: 2-2.5 cm

Flowering cycle : 55-60 years,

Seed weight : 21000 to 40000 seed/kg

Planting stock : by seeds, rooting Culm cuttings and tissue culture

Planting 400 plants/ha

Altitude up to 1000 m

Deep fertile, well drained loam soil and reverie alluvial soil

Yield: 30-40 tones/ha/year

Construction, agarbathi sticks, pulp, landscaping and best for edible shoots



Ochlandra travancorica

O. travancorica Benth

Common name: Reed bamboo

Local names

Malayalam Eeta, Oda, Ottal

Tamil : Eeral, Odai, Iral,

Height : 2-6 m Diameter : 2.5-5 cm

Internode : 45-100 cm

Wall thickness : 0.4-0.6 cm

Soil dark brown, acidic sand loam with granular structure.

Altitude up to 1000 m

Planting stock through seeds and vegetative propagation

Planting 625 plants/ha

Yield 6250 reed/ha/year

Used for pulp, mat weaving, basketry, bamboo ply, umbrella handles, fishing rods, handicrafts, walling of huts. Leaves are used for thatching



Schizostachyum pergracile

Cephalostachyum pergracile Munro

Local name.

Hindi: Bhalan bans

Assamese: Madang

Manipur: Wootang

Oriya: Dangi

Height: 10-30m

Diameter 5-7.5 cm

Internode length 30-45 cm

Wall thickness 0.5-0.8 cm

Moderately moist soil

Planting stock by seed, vegetative propagation

Planting 160 plants/ha

Use: landscaping, handicrafts Used for pulp.



Bambusa striata

B. striata Lodd.ex. Lidl

B. vulgaris var. striata Gamble

Local names - Golden bamboo

Bengali: bakal Manipuri: Bakal

Oriya: Sunderkania bansa

Malayalam: Manjamula

Height: 8-20m Diameter: 5-10 cm

Internode: 40-45 cm Wall thickness:1-2cm

Two varieties, green with yellow stripes and yellow with green stripes

No Seed formation

Propagation: by rooting culm and branch cuttings

Plantation 280/plants/ha

Yield: 35 tonnes/ha/year

Used for landscaping, suitable for saline areas, poles, pulp and domestic uses



Gigantochloa atroviolacea

G. atroviolacea Widjaja
Common name : Black bamboo

Height : 8-12m

Diameter : 6-8cm

Internode : 30-50 cm

Wall thickness : 0.5-0.8 cm

Dry areas in soil rich in limestone

**Culm colour purplish when
matured and the color increases
when grown in dry areas**

**Planting stock by rhizome and
culm cuttings**

Planting 280 plants/ha

**Used for construction, furniture,
musical instruments and
handicrafts**



Dinochloa andomanica

D.andomanica

Local name

Hindi:

Height:

Diameter cm, Internode length cm

Wall thickness cm

Flowering cycle years

Seeds: /Kg

Viability for days, Seeds storable

Propagation by seed and vegetative methods.

Planting: 280 plants/ha

Altitude up to m

Yield: about t/ha/year

Finer textured soil

Used for pulp, construction, edible and leaves medicinal



Schizostachyum dullooa

Common name : Dollu bamboo

Asam : Dullooa, Lepcha,

Meghalaya : Wadroo

Height : 6 - 9 m

Diameter : 6 to 8 cm

Internode : 2.5 – 7.5 cm

Wall thickness : 40 - 45 cm

Flowering cycle :

Planting stock by seeds and vegetative propagation including tissue culture

Planting 400 plants/ha

Altitude : 1200M

Used for construction, poles, basketry, Umbrellas and mats viewing.

Native : Asam, North Bengal, Sikkim

Bambusa burmanica

B. burmanica

Local name

Hindi:

Height:

Diameter cm,

Internode length cm

Wall thickness cm

Flowering cycle years

Seeds: /Kg

Viability for days, Seeds storable

Propagation by seed and vegetative methods.

Planting: 280 plants/ha

Altitude up to m

Yield: about t/ha/year

Finer textured soil



Used for pulp, construction, edible

Dendrocalamus sikkimensis

Common Name :

Mezoram : Rawami, Sangau,

Height : 17 - 20 m

Diameter : 12 - 20 cm

Internode : 45 cm

Wall thickness :

Flowering cycle :

Planting stock by seeds and vegetative propagation including tissue culture

Planting 400 plants/ha

Altitude : 2100M

Used for Animal fodder, Pulp, Fencing, Hut, Ropes, Water Pipe.

Native : N/E, West Bengal, Sikkim

Arunachal Pardesh, Meghalya, Nagaland

Dendrocalamus calostachyas

Common name :

Height : 20 - 30m

Diameter : 7.2cm

Internode : 30 - 40cm

Wall thickness : 5 - 4cm

Flowering cycle : 30 - 35 Year

**No of seeds/ weight 135000/kg Vegetative
propagation including tissue culture**

Planting 204 plants/ha

Altitude :

Used small Building and Domestic used.

**Native : Myanmar, Meghalaya, Nagaland, Dehra
Dun**

Bambusa logispiculata

Common name :

Height : 10 - 15m

Diameter : 7 - 10cm

Internode : 30 - 70cm

Wall thickness : 1-1.5 cm

Flowering cycle :

Seed, Vegetative propagation
including tissue culture

Planting 400 plants/ha

Altitude : 1000 meters

Used : Basket Mats, curtain

Native : Myanmar, Mezoram, Dehra
Dun

THANKS