



# EARTHCARE ENTERPRISES

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## NURSERY CATALOGUE - 2010

### *BAMBOOS, AQUATIC PLANTS, TROPICAL ROOT CROPS & GINGERS*

**EARTHCARE ENTERPRISES** is a partnership based at Crystal Waters Permaculture Village & Maleny in the Sunshine Coast Hinterland, South-East Queensland. We are involved in the exploration, research & development of new species of plants & animals with economic potential, as well as, Permaculture design & education. Species we grow; Bamboos, Water plants - Chinese Waterchestnuts, varieties & Lotus; Root crops - Taros, Tannias, Yams, Cassava, Arrowroot & Asian spices of the Ginger family *ZINGIBERACEAE*; miscellaneous fruits, herbs and spices. Many of these species, except for our most recent acquisitions, are sold as plants through the nursery and some are also supplied as fresh foods to restaurants & retailers, notably Water Chestnuts, Lotus - flowers, fruits & roots, & Bamboo shoots.

**Be sure to visit our website for colour photos of most of our plants and a lot more information**

## BAMBOO SPECIES LIST

The species are listed in alphabetical order of their Latin names followed by the maximum height and diameter of culms of mature plants grown in optimum conditions, given in metric. The temperature figure in Celsius is a guide to the temperature at which damage can occur to above ground parts of the plant due to cold if known. Mature clumps can often tolerate slightly colder conditions. Included also is the English common name for the species, if there is one, and if not we have given another common name sometimes in an other language in the interests of making bamboo names more user-friendly. The comments include - other vernacular names plus - the origin, uses and growth habits.

**BAMBUSA - A genus of warm temperate to tropical CLUMPING species. They usually have many branches at each node with 1 or 2 prominent.**

***BAMBUSA chungii* 10m x 8cm -10°C: \$50**

A medium sized bamboo which features culms that have a white powdery, wax covering. The white culms make it one of the most attractive bamboos of them all. It is also a very hardy species.

***BAMBUSA lako*: 12m x 8cm, -3°C TIMOR BLACK BAMBOO \$40**

This species was introduced to Australia from Timor. Misidentified as *GIGANTOCHLOA atrovioleacea* for many years. A beautiful ornamental with edible shoots.

***BAMBUSA maculata*: 15m x 7cm, ?°C \$ 30**

Cultivated in Bali & Java where it is known as **PRING TUTUL**, Tutul meaning spots. Also grows wild in the Moluccas & the Lesser Sunda Islands. The culms have highly contrasting dark blotches when dry. It has been assumed to be a variety of *B. vulgaris* for many years. Described by Elizabeth Widjaja in Reinwardtia, 11(2): 92 (1997). Used primarily for the furniture but also musical instruments, wall panels, flooring and handicrafts.

***BAMBUSA oldhamii*: 18m x 10cm, -9°C OLDHAM BAMBOO \$20**

Probably native to southern China though reported not to grow wild anywhere, found only under cultivation in China & SE Asia. Grown in Taiwan for its superior edible shoots. An attractive, erect species that can also be grown as a superb windbreak.

**BAMBUSA textilis: 12m x 5cm, -9°C WEAVER'S BAMBOO**

A beautiful plant native to southern China with long internodes and lacking branches in lower half, a preferred species split for weaving crafts and utensils. Culms can contain Tabasheer which is used in Chinese medicine for febrile diseases, delirium and infantile epilepsy. Following varieties available:

**BAMBUSA textilis var. FUSCA: 12m x 5cm, -9°C \$30**

This variety differs from the typical form in having dark hairs on the back of the culm sheaths (not always, especially not in young clumps). It is also excellent material for split work/weaving.

**BAMBUSA textilis var. GLABRA: 12m x 5cm, -9°C \$30**

Differs from the typical form in having no hairs on the back of the culm sheaths. As with all the textilis varieties it makes a nice landscape features.

**BAMBUSA textilis var. GRACILIS: 10m x 3cm, -9°C \$30**

A slightly smaller variety that makes an elegant addition to a garden. The thin walled culms are good as stakes and light poles for tools.

**BAMBUSA tulda: 22m x 10cm, -3°C TULDA \$45**

Native to India, Burma and Thailand. Strong culms tend to be solid and can take nails without splitting. It is borer resistant and excellent for craft, construction. We use to make excellent, light strong tool handles. Seedling '91.

**BAMBUSA vulgaris var. VITTATA: 20m x 12cm, -2°C VITTATA \$25**

Very attractive yellow culms striped green, widely planted as an ornamental. Fresh culms are good for constructing temporary stalls at exhibitions & festivals. It is low light tolerant and has been used as large indoor plantings.

**BAMBUSA vulgaris var. Wamin: 5m x 12cm, -2°C WAMIN, BIG BUDDHA BELLY \$25**

Gets shortened, swollen nodes 'Buddha's Bellies', especially when it gets lots of water at shooting time. A beautiful feature plant providing ornamental culms for craft.

**CEPHALOSTACHYUM - a genus of small to medium sized, CLUMPING tropical and subtropical bamboo.**

**CEPHALOSTACHYUM pergracile: 10m X 5cm, 0°C \$50**

An attractive, upright species with numerous branches emerging from higher nodes. Used in SE Asia as a vessel for cooking rice, imparting a unique flavour. Also used for light construction and split work.

**DENDROCALAMUS - A genus of CLUMPING bamboos from tropical Asia**

**DENDROCALAMUS asper : 30m x 30cm, -5°C ASPER \$30**

Known as 'PRING BETUNG' in Indonesia. Grows to high altitudes and so can withstand some degrees of frost. Cultivated in many parts of SE Asia for its edible shoots, construction, & craft. The large culms are also used as outriggers on fishing boats & percussion instruments. 2 varieties available - 1. Javanese (recommended) 2. A smaller Thai shoot var. "Sri Pratchin".

**DENDROCALAMUS asper var. BLACK: 30m x 30cm, -5°C BLACK ASPER \$50**

We imported this variety from central Java in '94, it has all the characteristics of the typical form except that the internodes are black and the nodes have a white band. It is highly valued in Java where it is known as 'PRING BETUNG HITAM' and used for furniture and craft.

**DENDROCALAMUS brandisii : 30m x 20cm, -?°C BRANDISII \$30**

Similar to DENDROCALAMUS asper, this is one of the worlds largest bamboos. Large leaves & thick walled culms used for construction & craft, shoots are eaten & exported by Thailand where it is known as PHAI-BONGYAI. Seedling '91.

**DENDROCALAMUS brandisii: var BLACK 30m x 20cm, -?°C BLACK BRANDISII \$50**

We discovered this variety amongst a batch of seedlings germinated in '91, live culms appear to be black but dry to a dark brown colour. Although not a true black bamboo the enhanced colour gives it extra value for uses like furniture making.

**DENDROCALAMUS giganteus: 30m x 25cm, -2°C GIANT BAMBOO** \$30

Another of the world's largest bamboos, culms are thick walled at the base and used for construction, water pipes, buckets, weaving, boat masts & paper production etc. The cooked shoots are creamy & tender but not widely used except by Vietnamese who know the species as M[AJ]NG T[OO]NG.

**DENDROCALAMUS latiflorus: 24m x 20cm, -4°C** \$30

A principal commercial variety for shoot production in China & Taiwan. A very attractive species with large leaves, strong culms are used for construction.

**DENDROCALAMUS Sikkimensis: 20m 20cm -2C** \$20

A beautiful big species with culms that turn orange when exposed to sun. The shoots are edible and popular in the Philippines where it is known as "Sweet Shoot Bamboo". The clone from which all the plants in Australia came from flowered and died during 2005 & 2006. The plants we have are seedlings from that flowering.

**DENDROCALAMUS minor var. Amoenus 10m x 5cm -6°C:** \$30

aka **Ghost Bamboo, White Bamboo** - A beautiful medium sized bamboo that has pale greenish gray culms with darker green stripes and shiny leaves. Of all our bamboos this one maintains the best appearance during winter, it is very hardy for a tropical clumping species.

**DREPANOSTACHYUM** is a genus of medium sized CLUMPING mountain bamboos from the Himalayas

**DREPANOSTACHYUM falcatum: 4m x 1cm. -20°C. HIMALAYAN WEEPING BAMBOO.** \$30

A medium sized, small leaved species suited to temperate climate. In warmer climates it needs a cool, slightly shaded position. An exceptional ornamental.

**GIGANTOCHLOA** - A genus of clumping bamboos from SE Asia. They have large leaves and an absence of lower branches on mature culms.

**GIGANTOCHLOA apus: 20m x 15cm, ? °C APUS** \$30

Known as "PRING TALI" in Indonesia. 'Tali' means string which can be split from the young culms and has suppleness of leather. The most important construction species in Indonesia, strong and durable.

**GIGANTOCHLOA atrovioleacea: 12m x 8cm, -2°C JAVA BLACK BAMBOO** \$100

Cultivated only in Central & West Java where it is known as WULUNG. It is valued for its black culms which are used to make furniture and musical instruments. The shoots are also edible turning a yellow-pink after cooking.

**GIGANTOCHLOA luteostriata: 10m x 5-7cm, ? °C** \$30

Formerly listed as Unidentified Species - 'EBF Variegated' This species was described by Elizabeth Widjaja in Reinwardtia, 11(2): 92 (1997). It is native to Borneo (Sth Kalimantan) where it is used for basketry & crafts. It has striking leaves variegated with white stripes making it an attractive ornamental.

**GIGANTOCHLOA pseudoarundinacea: 30m x 13cm, -2°C** \$50

A magnificent species known only in cultivation. Another important construction species in Indonesia, used also for split work and edible shoots. Culms have cream strips.

**Gigantochloa sp "Rachel Carson": 8m x 4cm, 0°C** \$50

A beautiful medium sized bamboo with white, striped leaves and culms. Originally collected in Sumatra by Len Muller. Timber quality of culms seems quite good.

**GUADUA - Moderate to very large CLUMPING genus from tropical America**

**GUADUA angustifolia: 30m x 23cm, -3°C** \$30

Native to north eastern S. America where it is the best species for construction. Culms have short internodes, are durable and pest resistant. See - 'Tropical Bamboo' pub. Rizzoli. New York, 1990, ISBN 0-8478-1192-1, for details about this amazing species in Colombia.

**MELOCANNA - A large CLUMPING genus of 2 species, from East Bengal and Burma.**

**MELOCANNA baccifera: 16m x 5cm -7cm, -3°C MULI BAMBOO** \$30

Native to Burma & Bangladesh where it is one of the most useful species for construction, weaving and domestic utensils. Shoots are edible, the fruits are the size and shape of pears and are also eaten by people and domestic & wild animals. Tabasheer is also a product of this species. Long rhizome necks form an open clump. Seedling '91.

**NASTUS - A genus of medium sized CLUMPING bamboos.**

**NASTUS elatus: 20m x 10cm, -1°C** \$30

A very attractive erect clumping species with long narrow leaves, native to New Guinea. Shoots are delicious and can be eaten raw. Not tolerant of wet soil and does not do well in pots, best propagated by divisions of clumps in the ground.

**PHYLLOSTACHYS - A genus of medium to large RUNNING bamboos with two branches at each upper node and grooved culms.**

**PHYLLOSTACHYS heterocyclus var. pubescens: 28m x 25cm, -17°C MOSO** PTO \$50

Known as MOSO in Japan this species is the most widely cultivated bamboo in China and Japan, primarily for its shoots which are the first of the *PHYLLOSTACHYS* bamboos to appear in spring and are highly regarded, they can be eaten raw if picked early. It is also used for plywood, chop sticks and general construction & crafts. Culms and leaves covered by fine hairs. Seedling '87

**SCHIZOSTACHYUM - A genus of CLUMPING bamboos from SE Asia.**

**SCHIZOSTACHYUM brachycladum: 15m x 10cm, ?°C BALI KUNING BAMBOO** \$30

This is a stunningly beautiful species with variegated yellow culms with green stripes, the large leaves have occasional cream stripes. Thin walled culms are used for crafts and splits are used for traditional roofing in Sulawesi. It is also used as containers for water and cooking glutinous rice. In Bali it is sacred and used in cremation ceremonies. This very useful bamboo is also often planted as an ornamental in SE Asia.

**SCHIZOSTACHYUM glaucifolium: 20m x 10cm, -2°C** \$50

A beautiful erect species from New Guinea. Culms are creamy yellow with green stripes. Formerly sold by other nurseries as *Sch. lima*.

**SCHIZOSTACHYUM zollingeri: 10m x 7cm, ?°C** \$30

Formerly listed by us as an Unidentified Species - 'PRING RAMPAL'. An attractive medium sized species with straight culms lacking branches on lower half, forms an open clump and often planted as an ornamental. We collected this clone from eastern Java. It is used to produce high quality woven products such as wall panels, floors, screens, mats & baskets. Also used for fencing, rafters & rice is cooked in the internodes. Occurs naturally also in Vietnam, southern Thailand, Malaysia & Sumatra.

**THYRSOSTACHYS - A CLUMPING genus of 2 known species, between 8 and 25m tall.**

**THYRSOSTACHYS siamensis: 13m x 6cm, ?°C MONASTERY BAMBOO** \$30

Tight clump lacking branches on the lower two thirds makes this a popular ornamental species. It is also one of the most useful bamboos. The strong culms are used for light construction, craft, umbrella & broom handles, fishing rods, paper pulp & fuel. The young shoots are considered a delicacy. Often planted as a windbreak. Seedling '91.

**A BAMBOO-LIKE GRASS**

**THYSANOLAENA maxima - Tiger Grass: 3m x 1cm, -2°C** \$15

A bamboo-like tropical grass from Asian. The large leaves, up to 7cm wide, are used to wrap food for steaming and the flower heads are tied together and used as brooms. The culms are also quite stout and would have their uses. A very attractive plant that is a good substitute for small bamboos like *B. multiplex* (which are susceptible to unsightly scale insects) as a feature or hedge. Tiger grass will do well in full sun to light shade and needs ample water to stay lush. It is frost sensitive but plants here have experienced -2°C without sign of damage.

## AQUATIC PLANTS

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**ELEOCHARIS dulcis - WATER CHESTNUT** - We have been growing this large, sweet Chinese variety for over 10 years. An annual sedge growing to 1m in good soil covered with 100 - 300mm of water. They can be grown in a flooded field like rice or in containers. The corms are best harvested in late winter for greater sweetness. Corms can be eaten raw but are better cooked. A 'Starter Pack' including 10 corms an information sheet and postage is \$30, Bulk seed corms \$60 per kg post paid.

**LIMNOPHILA aromatica - RICE PADDY HERB** – Rau om, Rau ngo (*Vietnamese*) An aromatic small leafed herb used fresh in Vietnam to garnish and flavour soups & curries. It can be grown in containers or pond edges with no more than a few centimetres of water over the soil. Needs protection from frost, available all year - \$5 each.

**NELUMBO nucifera - LOTUS** - This stunning Lily has leaves and flowers that rise up to a metre out of the water and is native to Northern Australia, New Guinea and tropical Asia. Temperate varieties have fat edible rhizomes, tropical varieties have thinner rhizomes. The seeds and young shoots of tropical & temperate varieties are eaten by all cultures where it naturally occurs. Leaves are used as a food wrapper for steaming by the Chinese. It will grow in up to 3m of slow flowing or still water. It can be grown in large pots as an ornamental. We have very limited stock of 5 varieties available;

1. Paleface – a white, pink tipped flower (temperate - sold as rhizome)
2. Pink double (temperate - sold as rhizome)
3. Bali Dwarf grown from seed collected in but not native to Bali (tropical - sold as rhizome)
4. White Lotus grown from seed collected in Chiang Mai, Thailand. (tropical - sold as rhizome)
5. Australian native from Mary River, Qld. (tropical - sold as seed) Seeds are collected from the wild and are pure. Seeds are sent out with germination instructions @ \$25 per 5 seeds, post paid.

Rhizomes are sent out as a starter pack of at least two propagules (a rhizome or small growing plant bare rooted) this increases the chance for a sure start. Care should be taken not to break the tender shoots when unpacking or planting. The best time to plant and the only period we ship propagules is in spring to the end of January at the latest. Starter packs are \$40 per variety, which includes postage & packing.

## TROPICAL ROOT CROPS

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**CANNA edulis - QUEENSLAND ARROWROOT** - An edible canna growing to 2 metres, used to be grown commercially for starch before cassava \ tapioca came to prominence. Corms can be eaten boiled or baked. The starch that can be washed out of the grated or pounded corms can be used to make cakes or as a thickener. Young shoots can be used as a vegetable and immature seeds are used in South America to make a type of Tortilla. Can be grown as a lush leafy screen, though frost will set it back in winter when the corms are ripe for harvesting. Corms \$5 each.

**COLOCASIA esculenta - TARO** - Elephant Ears, Coco Yam. Grown widely in the Pacific & Asia for its starchy corms (often called tubers). The corms can be eaten boiled, steamed or fried, in soups & stews, made into puddings or pounded into dumplings. On Pacific Islands they are fermented into a starchy mass called 'Poi'. Different varieties can be grown in wetland or upland culture. Frost will kill leaves but plants revive in spring, the corms will take longer to mature in cooler areas. We grow all our varieties on pond edges or in well watered garden plots. We don't have names for our varieties as yet, they are numbered and described below. Small tubers \$5 each.

var. No.1 - Petiole (leaf stalk) purple at the base. The dot (on top of the leaf above the petiole) is white. (corm) flesh white with cream fibres.

var. No.2 - Petiole green grading to purple at the top, purple dot, flesh white with purple fibres.

var. No.3 - Petiole purple at the top, dot purple, flesh white with cream fibres.

var. No.4 - Petiole light or yellowish green, dot white, flesh white.

**MANIHOT esculenta - CASSAVA** - An attractive shrub growing to 2m. An important carbohydrate food grown in the tropics on land too dry for rice. Survives light frosts. Young leaves can be eaten cooked, fat tuberous roots are eaten boiled, fried, baked or made into flour. The refined starch is known as 'Tapioca' is used as a thickener. Stem cuttings which strike readily in warm weather are available all year but best purchased in late winter to Jan. \$2 each.

**MARANTA arundinacea - JAMAICAN ARROWROOT** – West Indian Arrowroot. Tubers can be used like *CANNA edulis*. Grows to 1m, dies back in frost. Tubers or suckers available all year, \$5 each.

**XANTHOSOMA sagittifolium - TANNIA** - A Taro like plant but different in that sucker cormels are eaten rather than the mother corm, leaves are generally larger than those of Taro with more prominent veins. The 'V' of the arrowhead shaped leaf extends to the petiole. Requiring good moisture to do well but not grown in flooded soils. Corms are baked, boiled or fried and are excellent eating. Young leaves & petioles are cooked and eaten like spinach. Available all year \$5 for corms or suckers.

**POLYMNIA sonchifolia - YACON** - A South American annual growing to about a metre. Yields delicious, large, sweet fleshy roots that can be eaten on their own or added to salads. A sweet juice that can be extracted from the grated pulp makes a refreshing drink or can be reduced to a form of sugar. Corms from which the roots grow are only available during dormancy from June till 31st of September. \$5 each

## MISCELLANEOUS

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**PIPER sarmentosum - BETEL LEAVES** - Chaa phluu, phok puu noo, phak phiuu nok, pplug ring, ye-thoei (Thai), LA LOT (Vietnamese) A herbaceous plant, creeping or erect, up to 60 cm high, Cultivated in India and SE Asia as spice and medicine. In Thailand the young leaves are eaten raw or cooked. They are used raw to wrap ginger, peanuts, roasted coconut meat, dried shrimp, chilli, shallots, lime and, sweet coconut meat sauce to make miang kam bai chaa phluu, a kind of snack. The leaves are also mixed in khaao yam, blanched as a vegetable or put into curries. See also a Vietnamese recipe. The whole plant is a carminative. The roots or fruit help to cure dysentery, while the crushed roots and leaves are combined with salt to ease toothaches. Available all year but best purchased in warmer months. \$10 each.

## ZINGIBERACEAE - SPICES & MEDICINALS OF THE GINGER FAMILY

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Of the 1200 ginger species in the world many nurseries have collections of ornamental gingers that have beautiful flowers. Our interest is in the 100 or so species that are used by people as food, spice and medicine. We have been collecting specimens from SE Asia, a centre of diversity of the ginger family, as well as the culinary & medicinal recipes from the village people where they are grown. Our collection is still modest and we're still on a big 'learning curve'. We are interested in acquiring new species or information on their uses and we are happy to exchange plants, information or money in return. Our complete collection numbers around 30 species currently. We can provide the complete list to collectors who may have plants to exchange.

### Prices are for bare-rooted rhizomes sent out in late Winter to early Spring.

**ALPINIA galanga - GALANGAL** - This is a popular spice in SE Asia and is widely cultivated there to 1,200m above sea level, young rhizomes are used to flavour food either added sliced & cooked or juiced. Shoots, flower buds & flowers can be eaten cooked, shoots are quite hot when raw. \$5 each.

**BOESENBERGIA rotunda - CHINESE KEYS** - Kunci (Indo), Kra chaai (Thai) - Formerly listed as *Boesenbergia panduratum*. A tropical perennial growing to 50 - 70cm high. Leaves die back in frost. It is the fat swollen roots that are sought after in this species and not the rhizome. The succulent roots are used to flavour many kinds of food either added raw or cooked. They are also sold in a pickled form in Indonesia & Thailand. Young leaves & shoots are also eaten. Roots currently getting very good prices in Asian grocers in Sydney. \$5 each.

**CURCUMA australasica - CAPE YORK TURMERIC** - A beautiful native turmeric the rhizomes of which are eaten roasted by Aborigines. Grows to 2m, yellow flowers with striking pink bracts. Available all year in pots but easier to send as dormant rhizome in winter, \$5 each.

**CURCUMA domestica - TURMERIC** - Grows to 1m tall quite ornamental, yellow flowers have stacked white bracts. A common spice used in curry and for cooking yellow rice, young white rhizomes & shoots are eaten raw in southern Asia. Flowers and young leaves can be used as a vegetable. Older leaves can also be used to flavour sauces and stews. Two varieties available 1. Yellow rhizome, 2. Orange rhizome. Best purchased during winter dormancy, \$5 each.

**CURCUMA xanthorrhiza - TEMULAWAK (Java)** - This species bears a striking similarity to Cape York Turmeric. It differs in that the flower bracts are a deeper pink/purple colour as is the dark strip that runs up the centre of the leaf. Often used medicinally, in Bali a delicious drink is made by cooking dried slices of rhizome in water with palm sugar. Shoots, flowers and young rhizomes are eaten raw or cooked. \$5 each.

**KAEMPFERIA galanga - LESSER GALANGAL** - syn. Kencur (Java)- Often confused with *B. panduratum* which is also known as Lesser Galanga. This species grows just a few centimetres high the small broad leaves spread flat against the ground. The rhizomes and tuberous roots are used to flavour many foods. They are an essential ingredient for an authentic Indonesian peanut sauce. The young leaves are also a popular vegetable raw or cooked. Used medicinally in Asia for a wide range of ailments including menstrual cramps and headaches, also known to have mildly hallucinogenic effects with no known negative side effects. \$5 each.

**KAEMPFERIA rotunda – ROUND ROOTED GALANGAL (Eng.) KENCUR PUTIH (Java).**

Has beautiful variegated leaves and Crocus-like flowers which emerge after dormancy before the leaves. Young leaves are eaten raw or cooked also the root tubers can be eaten cooked and are quite hot. Rhizomes \$5 each

**ZINGIBER aromaticum - PUYANG** (Indo) - This species grows to about 2m, the yellow flowers come from a striking red cone at the base of the plant. Young rhizome tips, shoots & flowers are eaten raw or cooked with rice or used to flavour other foods. \$5 each.

**ZINGIBER mioga - MYOGA GINGER** - a native of Japan where it is grown commercially for its delicious spring shoots and young flower buds produced in autumn. Myoga flower buds are used in soups, tempura, pickled and as a spice. Experimental commercial plantings are being undertaken in Australia & New Zealand in the hope of supplying the lucrative Japanese off season with high quality produce. Our first release of Myoga will be in late Winter this year, 2004. Our stock is limited so get your order in early if you want to try it. Rhizomes \$10 each.

**ZINGIBER officinale var. SUNTI - GINGER** - This is a variety from Java which is similar to typical ginger but forming smaller rhizomes. Used the same as ginger but apparently also possessing particular medicinal qualities. \$5 each.

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## BAMBOO NOTES

**SPECIES SELECTION** - Bamboos are a primitive sub family of grasses that include over 70 genera and 1,200 species worldwide. They are native to all continents except Europe, Antarctica & the Arctic. The various species are adapted to a wide climatic range from cold temperate to tropical. For any climatic region, except for the extremely dry or cold, there are potentially 100's of species to choose from. In Australia there are 5 native species and the number of species & varieties available from nurseries has gone from 20 -30 in the early 80's to well over 200 today and more are being introduced all the time. Of the 1,200 species worldwide only about 100 rank in the 'Elite Bamboos' being significantly useful.

Care should be taken when selecting species for the garden or farm. All bamboos, both clumping and running forms, use an increasing amount of space as time goes by. Unless they are utilised or very much appreciated, they can become a liability requiring unrewarded effort to control their spread, especially if space is limited. We have realised this over the years and have culled most of the purely ornamental species from our collection without really compromising aesthetics; they are all beautiful and many of the important commercial species are outstandingly so. In a small yard it can often be more advantageous to grow a medium sized clumping variety that produces edible shoots and useful culms than a small ornamental type. Placed in a central position like the middle of a lawn it can provide all the benefits of a feature tree while being kept in check and looking good by the harvest of shoots and culms. The leaves make excellent 'seed free' mulch for annual gardens.

**VILLAGE BAMBOOS** - We specialise in 'village bamboos' i.e. those species that the rural folk from countries with a long history of bamboo utilisation have selected and cultivated for food, craft and construction purposes. We are in the process of collecting superior clones of these species from the various regions around the world that may best suit our warm-temperate to sub-tropical climate. These useful species have the potential to make a real contribution towards protecting native forests by providing an alternative material to timber. Bamboo can produce 10 times more cellulose material per hectare per year than even fast growing trees like *Pinus radiata*, it doesn't require heavy machinery to harvest and is user friendly. With simple tools it can be fashioned into a thousand useful items from toothpicks to houses. In recent years there has been a lot of industrial development - paper, plywood and particle board products made of bamboo; even sheets of corrugated roofing! Other uses of bamboo as living plants include nutrient uptake in wastewater, erosion control, windbreaks, hedges & fodder.

Over the last 14yrs we have tested over 100 species to get to our present list. Each year we decide to discontinue certain species for various reasons; pest or disease prone, inferior timber etc. Hence, if its not on this list it is very

likely not worth growing. As time goes by this list will be ever more refined. Of course new species are also added from time to time.

**CLUMPING & RUNNING MODES OF GROWTH** - As with other grasses generally, there are basically two modes of growth in bamboos, clumping & running with some variations. Clumping or 'sympodial' bamboos have short fat rhizomes that form clumps. How tight or open a clump is depends on the length of the rhizome neck of the particular species. They are most commonly tropical to sub-tropical with some of them able to tolerate some frost. They produce shoots in late summer and autumn.

Running or monopodial bamboos have long adventitious rhizomes that are cylindrical and segmented like the culms. These bamboos give rise to evenly spaced culms some distance apart. The larger species form groves that resemble timber pole forests, the culms are very straight and because of the light conditions only have branches on the upper portions. They are temperate climate plants that tolerate many degrees of frost and even annual snow cover. They produce shoots in spring and grow best in frost prone situations. In fact, they become stunted in warm situations with insufficient winter chill. Their spread can be controlled in various ways.....by natural boundaries such as:- hard roads; reasonably permanent water courses; grazing or frequent mowing. Installing underground rhizome barriers of concrete, conveyor belt rubber, or the like can also control them. The barrier should be dug to 1m below the surface or a hard infertile subsoil layer and allowing at least 100 mm protruding above ground. In dry areas with access to water they will only grow within the limits of the irrigation. The genus **PHYLLOSTACHYS** are the most useful of the running bamboos and the only ones that we grow and sell.

**PROPAGATION & AVAILABILITY** - We propagated small plants for mail order and we also dig and divide mature clumps in the spring & early summer months of the year. These supply large propagules that will establish faster than small. They are usually sold as single culm divisions and are more expensive, cost more to transport and need to be picked up or shipped soon after digging so some planning is necessary. However the advantage is they do establish much faster. As the Chinese saying goes, "a bamboo that one man can carry will take 10 years to mature and a bamboo that 10 men can carry will take 1 year to establish". Large field grown divisions are available between August & early December. Plantation quantities are available.

**International orders are possible but if you need a Phyto Sanitary Certificate it will mean substantial expense (AU\$400 minimum per consignment) because we are a 150km from the inspection centre.**

Regarding the United States please note that - due to a Notice of Quarantine, 7 CFR § 319.34, importation into the United States of any variety of bamboo seed, bamboo plants or bamboo cuttings capable of propagation including all genera & species of Bambusea, is prohibited unless in accordance with the law & relevant regulations.

**PRICES** - Prices quoted for bamboos are a minimum price for small plants suitable for mail order & easy transport. We also supply freshly dug divisions from early spring to about Xmas, price on application. Some bamboos listed will be propagated to order (PTO) only, ie. Either dug directly from the field or propagated in pots to the specified quantity. Plants are sometimes priced per culm. To avoid disappointments please seek confirmation by phone or e-mail of costs & availability before sending an order or visiting the nursery. Discounts apply to large orders. **Please note: No GST is charged.**

**We enjoy exchanging plants for other useful species that we don't have.**

*Please ring or email to confirm availability & post/freight costs when placing your order.  
We are not a retail nursery and visits to purchase plants must be by appointment only.*

***Minimum order \$25***