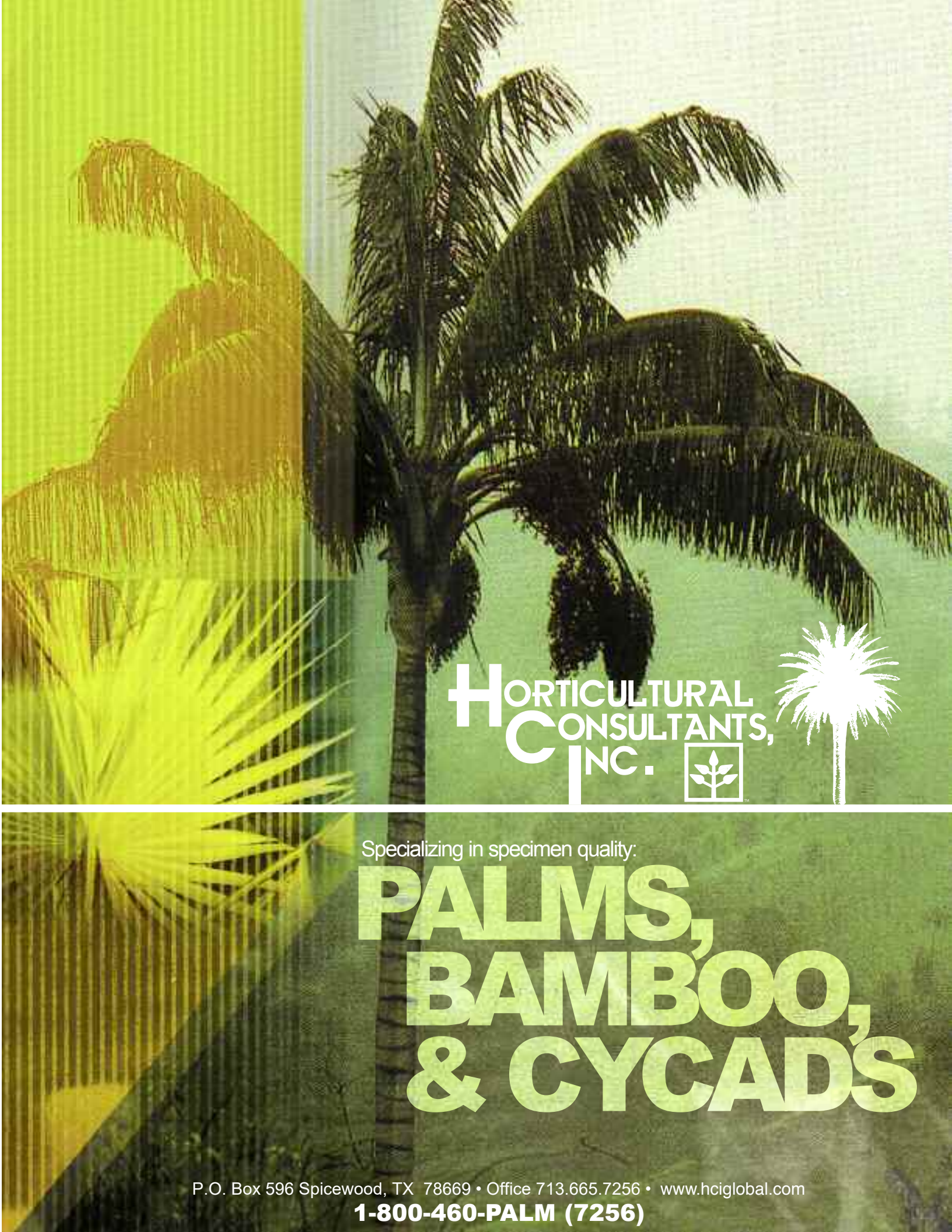
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PALMS

As members of the order, ***Principes***, signifying "princes" of the plant kingdom, palms arose early in the history of flowering plants, after primitive families like magnolias, waterlilies, and peperomias gave rise to the "monocot" and "eudicot" stocks. Based on recent molecular evidence, botanists believe that palms developed from primitive lily-like ancestors to become an important woody monocot parent stock which later diversified into higher families such as orchids, bromeliads, and grasses. All palms belong to the family, ***Arecaceae***, with over 4,200 species typically found in subtropical savannahs and moist rainforests, but also native to harsh desert areas and even frigid plateaus and mountains. Their popularity in gardens has soared in recent decades, along with an increased appreciation for their versatility and diverse beauty.

Among living plants, palms include the flowering plants with the largest seed, the largest inflorescence, and the longest leaf. There are species that grow to only six inches at maturity and others that soar over two hundred feet tall. Their "adventitious" root systems occupy an area much smaller than most comparably sized "trees" and this generally makes for successful transplanting even with large specimens. Since a palm cannot increase its girth by adding new wood, palm trees lack the capacity to repair injuries to their trunks. Therefore, care should be taken when planting to assure good drainage, secure anchoring, and proper planting depth around the root initiation zone.

The most important part of any palm is the emerging growth known as the "apical meristem", or "spear stem", which must be protected from damage during transport or unusual periods of cold weather. Although some palms can survive in poor soils, most are heavy feeders and respond to well-drained soils rich in humus. A balanced fertilizer with minerals and micronutrients may be applied three to four times a year.

The following pages describe palms that prosper in warm temperate to subtropical climates:

The genus ACOELORRAPHE

From the Greek "*a*" without, "*coelos*" hollow, "*raphe*" seam, in reference to the smooth seeds without a groove or seam.

Synonyms: ***Paurotis***
Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Livistoninae***

The subfamily includes 12 genera such as ***Brahea, Copernicia, Livistona, Licuala, Pritchardia, Serenoa,*** etc.

These fast growing clustering palms are native to southern Florida, the West Indies, the Yucatan Peninsula, and Central America, where they often grow on coral rubble or sandy soils near the sea. The bright green fan-shaped leaves sit in dense clusters atop slender stems covered in brown fibrous sheaths, making handsome specimens from an early age. These densely shrubby palms are suitable for screening or as elegant subjects for large patio containers and they bear attractive clusters of small black fruits. Although hard freezes sometimes discolor foliage or kill back the reedy stems, new shoots appear quickly and may reach 15'- 20' tall in a sheltered area.

Culture: ***Acoelorraphe*** accepts sun or shade and will tolerate damp soils or flooding; it grows slowly in dry areas.

Acoelorraphe wrightii

Common Name: Everglades Palm, Paurotis Palm
Cold Tolerance: 23^{0}F (-5^{0}C) **USDA Zones:** 9b-11

Typical Height: 20' **Growth Rate:** Slow
Habit: Clustering; each stem bearing 20–30 leaves

Status: In Stock
Available Range: 20–300gal.
B&B 3–15 trunks

The genus ACROCOMIA

From the Greek words "*akros* "and "*kome*", meaning a crown of leaves.

Subfamily: ***Arecoideae***
Tribe: ***Cocoeae***
Subtribe: ***Bactridinae***

The subtribe includes related South American genera such as ***Gastrococos, Aiphanes, Bactris, Desmoncus,*** *and* ***Astrocaryum***.

Botanists have reduced this formerly large genus to only two species- the trunkless grass-like ***Acrocomia*** *hassleri*, a native of the thorn forests, or "cerrados" of Brazil, and the wide-ranging species, ***Acrocomia*** *aculeata*, distributed from Mexico south through tropical America. The more cold-hardy Argentinian strain of the species was once known separately as "***Acrocomia*** *totai*" and is still sold under that name by many nurseries. ***Acrocomia*** *aculeata* makes a beautiful

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tall palm with a lush crown of green foliage. Its curious trunk is decorated with formidable spines set in a spiral pattern.

Culture: ***Acrocomia*** species accept sun or light shade and will tolerate drought. Good drainage is essential.

Acrocomia aculeata

Common Name: Macaw Palm
Cold Tolerance: 18ºF (-8ºC)
USDA Zones: 9-11

Typical Height: 40' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 30–300gal. 3'–25'CT

The genus ALLAGOPTERA

From the Greek "*allagos*", alternate, and "*pteron*", feather, in reference to the irregularly arranged pinnae of the leaf.

Subfamily: ***Arecoideae***
Tribe: ***Cocoeae***
Subtribe: ***Butiinae***

The subtribe includes 9 related genera such as ***Butia, Cocos, Jubaea, Parajubaea, Syagrus,*** etc.

This is a small genus of dwarf pinnate-leafed palms native to southern Brazil, Bolivia, Paraguay, and Argentina. The low stems of ***Allagoptera*** adapt these plants to life in dry brush or coastal sand dunes and are short or subterranean and sometimes forked, with the growing points often set far down, even below the bases of the stems. The pinnate leaves have glaucous undersides created by a heavy, waxy substance that helps the trees survive in their "*cerrado*" (thorn forest) or seaside habitats, where they may experience considerable salt spray. Their flowers appear on simple spikes guarded by a flattened spathe, which carries both female and male flowers together at the base and male flowers alone at the top, suggesting the bloom of an arum. ***Allagoptera*** is reasonably common in its native habitat, but remains unusual in gardens. The best known of the species, the Seashore Palm (***Allagoptera*** *arenaria*), is among the most beautiful palms suited to coastal conditions.

Culture: ***Allagoptera*** accepts sun or light shade and will tolerate drought and exposure to salt and wind. Good drainage is essential.

Allagoptera arenaria

Common Name: Seashore Palm
Cold Tolerance: 18ºF (-8ºC)
USDA Zones: 9-11

Typical Height: 6'–10' **Growth Rate:** Slow
Habit: Clustering (with time); each stem bearing 16–20 leaves

Status: In Stock
Available Range: 7–45gal. B&B 2'–6'OA

Other species of *Allagoptera*: *A.* *brevicalyx*, ***A.*** *campestris*, ***A.*** *leucocalyx* (all occasionally available)

***Allagoptera arenaria* has been known to survive temperatures as low as 14ºF and will grow down into salt water.**

The genus ARENGA

From a native name of Java, "*aren*"

Subfamily: ***Arecoideae***
Tribe: ***Caryoteae***

The tribe includes only a few other genera such as ***Caryota*** and ***Wallichia.***

Arenga is a mostly tropical genus of 17 species of graceful pinnate-leafed palms known as "Sugar Palms", because the sap of some species is tapped to produce sugar. Some dwarf species are surprisingly hardy to frost, such as ***Arenga*** *engleri*, a native of Taiwan and the Ryukyu Islands. As in the related genus ***Caryota***, the tropical varieties of ***Arenga*** become tall, solitary trees. Shrubby species such as ***A.*** *engleri* produce clustering stems bearing massive fronds, forming clumps to 12' across. These make striking, lush specimens for gardens, especially good near water. The wedge-shaped leaflets remain dark green above and are attractively silver below.

Culture: Sugar Palms succeed in shady or sunny positions with rich, well-drained soils and ample moisture. The lush foliage may be damaged by hard frost, but will recover. When well sited, ***Arenga*** species can be fast growing in the right conditions.

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Arenga engleri

Common Name: Formosa Palm
Cold Tolerance: 23ºF (-5ºC) **USDA Zones:** 9b-11

Typical Height: 8'–9' **Growth Rate:** Moderate
Habit: Clumping

Status: In Stock
Available Range: 15–200gal.

The genus BISMARCKIA

Named after Prince Otto von Bismarck, (1815-1898) first German chancellor.

Subfamily: ***Coryphoideae***
Tribe: ***Borasseae***
Subtribe: ***Hyphaeninae***

The genus ***Bismarckia*** contains only one species, which has become a treasured ornamental for the drier subtropics. Native to Madagascar, their magnificently large, thick costapalmate leaves range in color from green to blue-green to silver, with those in the blue-silver range hardiest to the cold.

Bismarckia nobilis

Common Name: Bismarck Palm
Cold Tolerance: 26ºF (-4ºC) **USDA Zones:** 9b-11

Typical Height: 30'–60' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 30–100gal. 1'–15'CT

The genus BRAHEA

In honor of the Danish astronomer, Tycho Brahe (1546-1601)

Synonyms: ***Erythea, Glaucotheca***
Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Livistoninae***

The subfamily includes 12 genera such as ***Acoelorraphe, Copernicia, Livistona, Licuala, Pritchardia, Serenoa,*** etc.

Brahea is a genus comprised of 10 species of fan-leafed palms native mostly to Mexico, with one species (***Brahea*** *edulis*) endemic to the island of Guadalupe and several more to Baja California and the dry mountains of northeastern Mexico. Although slow growing, the species of ***Brahea*** offer several advantages in garden culture, particularly endurance to alkalinity, heat, drought, and strong sun. Their leathery, fan-shaped leaves vary from rich green tones to striking silvery-grays, making them favored collector's pieces. At least 3 species have become fairly common in gardens: ***B.*** *armata*, ***B.*** *brandegeei* and ***B.*** *edulis*. With generally good cold tolerance and tremendous beauty (in particular, ***Brahea*** *armata*, the famed Blue Palm of Mexico) mature specimens of these uncommon palms are considered great treasures. ***Brahea*** produces both male and female flowers, so only one tree is needed to produce seed.

Culture: ***Brahea*** palms succeed in full sun or light shade. Good drainage is essential and trees should be well rooted in containers or thoroughly stabilized before planting. Young plants need protection from hard freezes, but become very cold hardy as they mature.

Brahea armata

Common Name: Mexican Blue Fan Palm
Cold Tolerance: 14ºF (-10ºC) **USDA Zones:** 8b-11

Typical Height: 20'– 30' **Growth Rate:** Slow
Habit: Solitary

Available Range: 15–200gal. B&B 1'–15'CT
Status: In Stock

Brahea edulis

Common Name: Guadalupe Palm
Cold Tolerance: 20ºF (-7ºC) **USDA Zones:** 8b-11

Typical Height: 30' **Growth Rate:** Slow
Habit: Solitary

Available Range: 15–200gal. B&B 1'–18'CT
Status: Available

Other Species of Brahea:
B. *aculeata,* ***B.*** *brandegii,* ***B.*** *clara,* ***B.*** *decumbens,* ***B.*** *dulcis,* ***B.*** *elegans,* ***B.*** *moorei,* ***B.*** *pimo,* ***B.*** *nitida,* ***B.*** *brandegii X edulis* (on request)

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The genus

BUTIA

From a native name "*butia*" in South America

Subfamily: ***Arecoideae***
Tribe: ***Cocoeae***
Subtribe: ***Butiinae***

The subtribe includes 9 related genera such as ***Cocos***, ***Jubaea***, ***Parajubaea***, ***Syagrus***, etc.

An intriguing genus of pinnate-leaved palms, for the most part highly tolerant of drought and cold. At least three of the species are fairly common in gardens: ***B***. *capitata*, ***B***. *eriospatha*, and ***B***. *yatay*; all are hardy to about 10ºF (-12ºC). The species of ***Butia*** inhabit grasslands (*pampas*) and semi-arid savannahs or thorn forests (*cerrado)* from southern Brazil through Paraguay, Uruguay, and northeast Argentina, usually on sandy soils or red clays of an acid pH. ***Butia*** palms make especially decorative garden trees, with diamond-shaped markings created by the persistent leaf bases, which may be trimmed to reveal a pineapple-like pattern. Although compact enough for small courtyard gardens and large containers, with age the trees can assume majestic proportions. ***Butia*** palms display tremendous originality in form and may produce foliage that swirls to the right or to the left, approaches near green in color, or tends to a striking silver-gray. The crowns may be open and spreading, or tightly recurved and densely spaced. Their colorful fruits appear in large clusters at various times of the year and usually ripen to shades of red, orange, or yellow. They are rich in vitamin C, with a sweet, exotic flavor attractive to scarlet macaws and other wildlife, and popular for making jellies and preserves. Where they occur together, ***Butia*** species sometimes cross with ***Syagrus*** *romanzoffiana* to create the rare hybrid palm, ***X Butiagrus*** *nabonnandii.*

Culture: ***Butia*** species accept sun or light shade and will tolerate drought. Good drainage is essential.

Butia capitata

Common Name: Pindo Palm, Jelly Palm
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-10b

Typical Height: 15' **Growth Rate:** Slow
Habit: Solitary; canopy of 40–50 leaves

Status: In Stock
Available Range: 15–300gal. B&B 1'–20'CT

Butia eriospatha

Common Name: Woolly Butia Palm
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-10b

Typical Height: 15' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 100–300gal. B&B 1'–20'CT

Butia yatay

Common Name: Yatay Palm
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-10b

Typical Height: 25' **Growth Rate:** Slow
Habit: Solitary; canopy of 40–50 leaves

Status: In Stock
Available Range: 45–300gal. B&B 2'–8'CT

Other species of Butia:
B. *archeri*, ***B.*** *campicola*, ***B.*** *microspadix*, ***B.*** *paraquayensis*, ***B.*** *purpurascens* (on request)

The most beautiful of all the cold hardy species of palms:

X Butiagrus nabonnandii

A name created from a combination the parent genera, ***Butia*** and ***Syagrus***. The species name honors Paul Nabonnand, a French horticulturist, who first reported the hybrid in the early 1900's.

Synonyms: ***Syagrus*** *X fairchildiana*.

The Mule Palm, ***X Butiagrus*** *nabonnandii*, is one of the most beautiful of all the frost-hardy pinnate-leaved palms. Its rarity and useful size make it a treasure for warm climate gardens, bringing coconut-like lushness to areas where the frost-tender true coconut (***Cocos*** *nucifera*) would not prosper. Although nurseries and palm fanciers may deliberately create the cross, as Paul Nabonnand did

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early in the 20th century, these rare trees more often arise as accidental hybrids among seedlings planted where their parents (a Queen Palm, ***Syagrus*** *romanzoffiana*, and a Pindo Palm, ***Butia*** *capitata*) occur near one another. Young Mule Palms usually grow at a rapid pace and, when established, can be expected to survive low temperatures to near 14ºF (-10ºC) or as low as 10ºF (-12ºC), depending on the individual tree and its unique inheritance. Although compact enough for small courtyard gardens, with age the Mule Palm assumes majestic proportions, and in clusters or pairs will produce gracefully curving trunks and lush crowns reminiscent of the Coconut. Horticultural Consultants Inc. offers numerous specimens of unique and carefully prepared ***X Butiagrus*** *nabonnandii* ideal for avenues, group plantings, or any landscape purpose.

Culture: ***X Butiagrus*** *nabonnandii* thrives in sun or light shade and will tolerate drought. The trees exhibit hybrid vigor and tolerate a range of soil types from clay to sand. As with most palms, good drainage is most important.

Common Names: Mule Palm, Butia Queen Cross
Cold Tolerance: 14ºF (-10ºC). Some trees have withstood temperatures as low as 10ºF (-12ºC). **USDA Zones:** (8b) 9-11

Typical Height: 30' **Growth Rate:** Fast
Habit: Solitary

Status: In Stock
Available Range: 7–300gal. B&B 3'–20'CT

Horticultural Consultants, Inc. (HCI) has one of the largest collections of Butia Queen–Crosses in one location in the world!

The genus
CHAMAEDOREA

From the Greek words "*chamai",* on the ground, and "*dorea",* gift.

Synonyms: ***Neanthe***
Subfamily: ***Cereoxyloideae***
Tribe: ***Hyophorbeae***

The tribe includes related genera such as ***Gaussia***, ***Hyophorbe***, ***Synechanthus***, and ***Wendlandiella***.

A large genus of about 100 small solitary or clustering feather leafed palms native in Mexico, Guatemala, Belize, El Salvador, Honduras , Nicaragua, Costa Rica, Panama, Columbia, Ecuador, Bolivia, and Brazil. Most of the species grow in the understory of dense forests and generally prefer shady growing conditions. Their lush green foliage is a favorite of florists and several species are popular as potted specimens for interior decoration. Although most ***Chamaedorea*** demand humid tropical conditions, at least two of the red-fruited species (***Chamaedorea*** *radicalis* and ***C.*** *microspadix*) are native to temperate elevations in the Sierra Madre of eastern Mexico and have proven rather cold hardy, making them valuable additions to landscapes in the southeastern states.

Culture: ***Chamaedorea*** palms will adapt to direct sun, but develop their richest leaf coloring in full or partial shade. Established plants will tolerate moderate drought and flooding.

Chamaedorea microspadix

Common Name: Hardy Bamboo Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 8' **Growth Rate:** Moderate
Habit: Clustering, stems sometimes widely separated, each bearing 4–8 leaves

Status: In Stock
Available Range: 3–25gal. 1'–6'CT

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Chamaedorea radicalis

Common Name: Pringle's Feather Palm
Cold Tolerance: 16ºF (-8ºC) **USDA Zones:** 8b-11

Typical Height: 5' **Growth Rate:** Slow
Habit: Solitary, often planted as multiples

Status: In Stock
Available Range: 3–15gal. 1'– 3'CT

Others species of Chamaedorea:
C. *cataractarum*, ***C.*** *metallica*, ***C.*** *seifrizii*, ***C.*** *stolonifera* (all on request) ***C.*** *klotzschiana* (occasionally available)

We carry *Chamaedorea radicalis* in both its rare dwarf and hybrid trunking forms.

The genus
CHAMAEROPS

From the Greek "*chamai"* on the ground, and "*rhops"* bush, a reference to the mostly shrubby habit of this palm.

Subfamily: *Coryphoideae*
Tribe: *Corypheae*
Subtribe: *Thrinacinae*

The subtribe includes 14 related genera such as ***Trachycarpus***, ***Rhapidophyllum***, ***Thrinax***, ***Rhapis***, etc ...

Chamaerops is a monotypic genus (containing only one species, ***Chamaerops*** *humilis*) with several varieties native to southern Europe (Italy, Sardinia, Spain) and North Africa (Morocco). Wild trees also grow on the island of Malta, but may have been introduced in ancient times. ***Chamaerops*** inhabit rough, rocky terrain along the Mediterranean and ranges up to 3500 feet in elevation in the mountains of Morocco. In some high elevation populations the palms are regularly exposed to hard frost and snow cover. These are splendid palms for gardens and are well loved for their compact habit, hardiness, and resistance to drought. ***Chamaerops*** is one of only two genera of palms native to Europe, the other being the genus ***Phoenix***, represented by the Cretan Date Palm, ***Phoenix*** *theophrasti*, a rare native of Crete and Turkey.

Culture: ***Chamaerops*** *humilis* succeeds in full sun or light shade and will tolerate extreme heat and drought. Good drainage is essential. **Note:** This is the northernmost growing palm in the world in its native habitat, athough not the most cold hardy.

Chamaerops humilis

Common Name: Mediterranean Fan Palm, European Fan Palm
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-11

Typical Height: 15' **Growth Rate:** Slow
Habit: Usually clustering, but solitary forms occur; canopy of 15–30 leaves

Status: In Stock
Available Range: 15–300gal. B&B 1–12 Trunks 1.5'–10'CT

Chamaerops humilis v. cerifera

Common Name: Morrocan Blue Fan Palm
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-11

Typical Height: 10' **Growth Rate:** Slow
Habit: Usually clustering, but solitary forms occur; canopy of 15–30 leaves

Status: In Stock
Available Range: 3–25gal. 1'– 3'CT

C. *humilis var. cerifera,* the most recent new cultivar, has emerged as a particular delight, with its striking gray-blue foliage.

Other cultivars of *Chamaerops*:
C. *humilis var. elegans*, ***C.*** *humilis var. conduplicata*, ***C.*** *humilis var. tenuifrons* (all occasionally available)
C. *humilis var. Super Dwarf* (on request)

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The genus
COPERNICIA

In honor of the Polish astronomer, Nicolaus Copernicus (1473-1543)

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Livistoninae***

The subfamily includes 12 genera such as ***Acoelorraphe***, ***Brahea***, ***Livistona***, ***Licuala***, ***Pritchardia***, ***Serenoa***, etc.

A genus of moderate to large growing fan-leafed palms with around twenty-five species, especially well represented in Cuba, but also present on the island of Hispaniola and in South America. Usually slow growing and ruggedly drought resistant, many ***Copernicia*** species develop into impressive trees with massive solitary trunks crowned by stiffly spreading bright green foliage, sometimes with a thatched petticoat of old leaves. Although most varieties demand tropical conditions, at least one species, the Caranday Palm of Bolivia, Paraguay, Brazil, and Argentina, is ruggedly hardy, fast growing, and tolerant of moderate frosts.

Culture: ***Copernicia*** palms succeed in full sun or light shade. Good drainage is essential.

Copernicia alba

Common Name: Caranday Palm
Cold Tolerance: 24ºF (-4ºC) **USDA Zones:** 9b-11

Typical Height: 30' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 15–100gal. B&B 1'–10'CT

Other Species of *Copernicia*:
C. *baileyana*, ***C.*** *macroglossa*, ***C.*** *prunifera* (all on request)

The genus
GUIHAIA

From an old name for the Chinese province, "*Guangxi*"

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Thrinacinae***

The subtribe includes 14 related genera such as ***Trachycarpus***, ***Rhapidophyllum***, ***Chamaerops***, ***Thrinax***, ***Rhapis***.

Guihaia is a small genus that contains two species native to southern China and Vietnam. In the wild these palms grow in crevices on limestone hills or in rocky woodlands in regions of rugged "karst" topography. They are mostly dwarf, shrubby plants with dark green palmate leaves that look like a smaller, neater version of a Needle Palm (***Rhapidophyllum*** *hystrix*) when viewed from above, but often show a striking silvery tone when examined from beneath. ***Guihaia*** is dioecious, with flowers on separate male and female palms. The trees grow slowly, developing short furry trunks that may sucker or remain solitary, eventually reaching about 3 feet in height. Their dark green, fan-shaped leaves make ***Guihaia*** species especially handsome garden palms and a beautiful choice for container plantings. Because these palms have only recently been introduced into cultivation, they remain rare collector's pieces. The species has proven hardy to at least 18ºF (-8ºC). HCI is one of the only places in the entire U.S. where this palm is offered.

Culture: ***Guihaia*** performs best in full or partial shade. Established plants will tolerate moderate drought and flooding.

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Guihaia argyrata

Common Name: Silver Back Fan Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 3'– 4' **Growth Rate:** Very Slow
Habit: Clustering

Status: In Stock
Available Range: 7–25gal. 2'–3.5'OA

Guihaia grossefibrosa

Common Name: Guangxi Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 3'– 4' **Growth Rate:** Very Slow
Habit: Clustering

Status: In Stock
Available Range: 7–15gal. 2'–3'OA

***Guihaia argyrata* has been known to survive temperatures as low as 12ºF.**

The genus

JUBAEA

In honor of King Juba II (50 -24 B.C.), who had an interest in botany and reigned over the ancient kingdom of Numidia (part of present day Algeria).

Subfamily: ***Arecoideae***
Tribe: ***Cocoeae***
Subtribe: ***Butiinae***

The subtribe includes 9 related genera such as ***Cocos***, ***Butia***, ***Parajubaea***, ***Syagrus***, etc.

This is a monotypic genus (with one member, ***Jubaea*** *chilensis*) of tremendous interests to botanists. Prior to being placed under protection in 1971 the remaining wild populations of ***J.*** *chilensis* were offered little chance of survival, for the famous "palm honey and "palm wine" traditionally made from these plants is produced by sacrificing the trees. Although a single trunk may be bled to produce about 100 gallons of palm wine, this causes the death of the ***Jubaea***. ***Jubaea*** is one of the most cold tolerant of feather-leafed palms, with massive spreading crowns of handsome green pinnate foliage. A good grower in cool Mediterranean climates and tolerant of cold from a young age, in hot inland gardens ***Jubaea*** performs best with partial shade. Mature trees are magnificent to behold and remain one of the wonders of the plant kingdom.

Culture: ***Jubaea*** *chilensis* accepts sun or light shade and will tolerate drought. Good drainage is essential. **Note:** The trunk can reach as large as 12' in caliper, making it clearly the largest in girth.

Jubaea chilensis

Synonym: ***Jubaea*** *spectabilis*
Common Name: Chilean Wine Palm
Cold Tolerance: 14ºF (-10ºC) **USDA Zones:** 8b-11

Typical Height: 50'–80' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 1–200gal. B&B 4'–30'CT

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The genus
LIVISTONA

In honor of Patrick Murray, Baron of Livingston

Synonymns: African & Arabian species of ***Livistona*** were formerly segregated in the genus ***Wissmannia***
Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Livistoninae***

The subfamily includes 12 genera such as ***Acoelorraphe***, ***Brahea***, ***Copernicia***, ***Licuala***, ***Pritchardia***, ***Serenoa***, etc.

Livistona is a wide-ranging genus of fan-leafed palms with about 30 species distributed from northern Africa through India, China, Southeast Asia, to the Phillipines and Ryukyu Islands, with several species in Indonesia, Japan, and Australia. Many of these palms have excellent tolerance to cold and frost. Although most varieties enjoy moisture, they are also fairly tolerant of drought when established. The long smooth trunks flare attractively at the base and carry gracefully weeping crowns of foliage, making ***Livistona*** especially impressive palms for streets and gardens. Although the commonly planted Chinese Fan Palm (***Livistona*** *chinensis*) and Australian Fountain Palm (***L.*** *australis*) grow slowly to tree size, other popular species like the Ribbon Fan Palm (***L.*** *decipiens*) and Taraw Palm (***L.*** *saribus*) rank among the fastest growing garden palms, quickly maturing into large trees. ***Livistona*** produce large grape-like clusters of fruits, often attractively tinted blue or jade green.

Culture: ***Livistona*** palms accept sun or shade and many varieties will tolerate damp soils or flooding; they grow slowly in dry areas.

Livistona australis

Common Name: Australian Fountain Palm
Cold Tolerance: 20ºF (-7ºC) **USDA Zones:** 9-11

Typical Height: 40' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 3–100gal. B&B

Livistona chinensis

Common Name: Chinese Fan Palm
Cold Tolerance: 17ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 25' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 3–200gal.
B&B gal. 1'–15'CT

Livistona decipiens

Common Name: Ribbon Fan Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 30' **Growth Rate:** Slow to Moderate
Habit: Solitary

Status: In Stock
Available Range: 3–200gal. B&B 1'–15'CT

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Livistona fulva

Common Name: Blackdown Tableland Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 25' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 1–25gal.

Livistona saribus

Common Name: Taraw Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

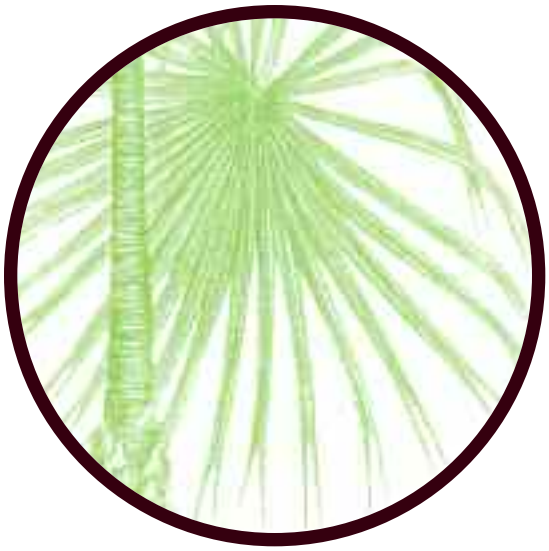
The green petiole base form of ***Livistona*** *saribus* is more cold hardy the the maroon petiole base form.

Typical Height: 60' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 3–65gal. B&B 4'–16'CT

Other Species of Livistona:
L. *drudei*, ***L.*** *jenkinsiana*, ***L.*** *mariae* , ***L.*** *nitida*, ***L.*** *rigida*
(all occasionally available)

Note: ***Livistona*** *boninensis,* a new discovery of Australia's John Dowe, is the most cold hardy of all the ***Livistonas***. Occuring on the island of Aoshima, Japan, as its northernmost limit of regeneration, this will only be available as seedlings for the next few years.



The genus

NANNORRHOPS

From the Greek *"nannos"*, dwarf, and *"rhops"*, bushy, in reference to the shrubby habit of the wild trees.

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Coryphinae***

The subtribe includes 3 related genera, ***Corypha***, ***Chuniophoenix*** and ***Kerriodoxa***

Nannorrhops is a monotypic genus (with only one species, ***N.*** *ritchiana*) native to the deserts of Afghanistan, Pakistan, and Iran. The Mazari Palm occurs at altitudes up to 5000 feet in generally barren habitats or arid grasslands and is extremely tolerant of cold. The stems sucker like those of the Mediterranean Fan Palm (***Chamaerops*** *humilis*). These palms are mostly low and shrubby in the wild, although cultivated plants may reach 30' in height. At least two forms of ***N.*** *ritchiana* can be recognized in the wild, a green leafed variant and one with silvery gray leaves. Because of its slow growth and obscure, remote habitat, ***N.*** *ritchiana* remains rare in cultivation. Its remarkable cold hardiness makes it a valuable palm for gardens subject to heavy frost or snow. ***Nannorrhops*** belongs to a primitive group of palms, along with ***Corypha***, that produce flowers from the apex of the mature stems, which then die after blooming. The fruit of the native tree is collected and eaten and the leaves serve as a source of fiber for thatching and cordage.

Culture: ***Nannorrhops*** succeeds in full sun or light shade and will tolerate extreme heat and drought. Good drainage is essential.

Nannorrhops ritchiana

Synonyms: ***Chamaerops*** *ritchiana*, ***Nannorrhops*** *naudeniana*
Common Name: Mazari Palm
Cold Tolerance: -15ºF (-26ºC) **USDA Zones:** 7b-11

Typical Height: 10' (range of 5'–25') **Growth Rate:** Slow
Habit: Clusturing

Status: In Stock
Available Range: 1–10gal.

***Nannorrhops ritchiana* is the most cold hardy palm known!**
(as of this writing)

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The genus
PHOENIX

From the Latin form of the Greek word for "date palm"

Subfamily: ***Coryphoideae***
Tribe: ***Phoeniceae***

Phoenix includes 17 species and is the only genus in the tribe ***Phoeniceae***.

The genus includes 17 species of pinnate-leaved palms commonly known as Date Palms, native to Africa, the Canary Islands, Crete, Turkey, the Middle East, Asia, India, China, the Philippines, and Indonesia. The best known species are the True Date, ***P.*** *dactylifera*, cultivated since ancient times for its fruits, and ***P.*** *canariensis*, the Canary Island Date Palm, popularly planted around the world as an ornamental tree along avenues and in gardens. 'Deglet Noor', 'Zahidi', and 'Medjool' are select varieties of ***P.*** *dactylifera* propagated by suckers to assure uniform fruit production. Of these, 'Medjool' is particularly ornamental, with dense crowns of silvery-blue leaves. Some species of ***Phoenix*** develop solitary stems (i.e. ***P.*** *canariensis*, ***P.*** *sylvestris*); others produce suckers or branches from their trunks, usually more or less near the base (i.e. ***P.*** *dactylifera*, ***P.*** *reclinata*, and some forms of ***P.*** *roebelenii* as in *Reisnerii Clustering*). Trunks may be short (***P.*** *acaulis*) or tall (***P.*** *dactylifera*), elegantly slender (***P.*** *roebelenii*), or stout and heavy (***P.*** *canariensis*), and are invariably decorated with the attractive diamond pattern of leaf scarring typical for the genus ***Phoenix***. Species of ***Phoenix*** are dioecious, so both male and female trees are needed to produce fruit. Where dates are cultivated commercially the flowers of the male ***P.*** *dactylifera* are carried by hand to pollinate the female fruits and assure production. Fossil evidence of ***P.*** *dactylifera* has been found in Texas.

Culture: Species of ***Phoenix*** accept sun or light shade and will tolerate drought. Good drainage is essential.

Phoenix canariensis
Common Name: Canary Island Date Palm
Cold Tolerance: 18°F (-8°C) and recovers well from freezes as low as 14°F (-10°C) **USDA Zones:** 8b-11

Typical Height: 40' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 15–300gal. B&B 1'–30'CT

Phoenix dactylifera
Common Name: Date Palm
Cold Tolerance: 18°F (-8°C) or as low as 14°F (-10°C) under dry conditions. **USDA Zones:** 8b-11

Typical Height: 70' **Growth Rate:** Slow
Habit: Slowly Clustering

Status: In Stock
Available Range: 45–300gal. B&B 1'–35'CT

Cultivars of *Phoenix* *dactylifera* include:
"Barhi", "Daryri", "Deglet Noor", "Halawi", "Khadrawi", "Zahidi", among which "Medjool" and "Zahidi" are best suited for Gulf Coast humidity.

Phoenix reclinata
Common Name: Senegal Date Palm
Cold Tolerance: 22°F (-6°C) **USDA Zones:** 9-11

Typical Height: 25'–30' **Growth Rate:** Moderate
Habit: Clustering

Status: In Stock
Available Range: 65–200gal. 4'–8'OA

Phoenix roebelenii
Common: Name: Pygmy Date Palm
Cold Tolerance: 24°F (-5°C) **USDA Zones:** 9-11

Typical Height:10'–15' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock, single & multiple trunks
Available Range: 15–300gal. B&B 3'–8'CT

Phoenix sylvestris
Common Name: Indian Date Palm
Cold Tolerance: 18°F (-8°C) **USDA Zones:** 9-11

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Typical Height: 40’ **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 65–200gal. B&B 2’–10’CT

Other species of *Phoenix* :
P. *rupicola*, ***P.*** *theophrasti* and various ***Phoenix*** hybrids such as ***P.*** *reclinata x roebelenii,* ***P.*** *canariensis x reclinata,* ***P.*** *canariensis x roebelenii* and ***P.*** *reclinata x theophrasti* (on request)

The genus RAVENEA

Named after Louis Ravene, a French Consular Official.

Subfamily: ***Ceroxyloideae***
Tribe: ***Ceroxyleae***

A genus of 17 species, endemic to Madagascar and the Comoro Islands, ***Ravenea*** are solitary, pinnate-leafed, unarmed and dioecious, with their stems sometimes swollen at the base. They range in size from small and slender to large and even massive specimens; absent of crownshaft, their long fronds can form large and impressive crowns. These palms can be found growing in wet as well as dry conditions, from sea level to over a mile in elevation. Their inflorescences arise among their leaves, are enclosed within a number of persistent bracts, their fruits globose, often brightly colored, with a pebbly skin. The ***R.*** *rivularis*, or Majesty Palm, is the only species much cultivated outside of botanical gardens, is soaring in popularity, yet not well suited to below freezing temperatures. Of more interest to us is a rare species, ***R.*** *xerophila*, one of the most unusual palms of Madagascar, found in the south, atypically growing in very dry sites. With its gray, V-shaped and recurving leaves, it has some resemblance to the ***Butia***.

Culture: ***Ravenea*** thrive in partial shade to sunny areas, preferring humus rich soils. They appreciate good drainage. These palms can be slow to fast growing, are intolerant of drought, and most are able to withstand damp soils, even flooding.

Ravenea xerophila

Cold Tolerance: 24ºF (-5ºC) **USDA Zones:** 9b-11

Typical Height: 17’ can reach 25’ **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: Liners - 7gal.

The genus RHAPIDOPHYLLUM

From the Greek “ *rhapidos* ”, a needle, and “ *phyllon* ”, a leaf, a reference to the numerous spines that appear from the trunk at the base of the leaves.

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Thrinacinae***

The subtribe includes 14 related genera such as ***Trachycarpus***, ***Chamaerops***, ***Thrinax***, ***Rhapis***, etc.

The genus ***Rhapidophyllum*** contains only one species, the Needle Palm, (***R.*** *hystrix*), native to humus-rich woodlands on marl and limestone soils, often around sinkholes and in thick hammocks of vegetation in north and central Florida, and parts of Georgia and Alabama. ***R.*** *hystrix* is one of the most cold-hardy palms and will survive temperatures as low as -4ºF (-20ºC). The Needle Palm’s short furry trunk carries long black spines at the base of the leaves and is unique in the palm family, readily distinguishing this species. The shining, dark green, fan-shaped leaves make ***Rhapidophyllum*** an especially handsome garden palm.

Culture: ***Rhapidophyllum*** accepts sun or shade and will tolerate drought and flooding. The trees grow at a moderate pace and are cold hardy and adaptable. ***Rhapidophyllum*** generally resists pests and diseases, but may suffer occasional attacks of scale. Specimens growing on acid soils benefit from applications of dolomitic limestone.

Rhapidophyllum hystrix

Common Name: Needle Palm
Cold Tolerance: -4ºF (-20ºC) **USDA Zones:** 7b-11

Typical Height: 5’, can reach 14’ **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range:
15–300gal.
B&B 1’–7’CT

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The genus
RHAPIS

From the Greek *"rhapis",* needle, in reference to the slender leaf segments.

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Thrinacinae***

The subtribe includes 14 related genera such as ***Chamaerops***, ***Rhapidophyllum***, ***Thrinax***, ***Trachycarpus***, etc...

A small genus of about a dozen species of fan-leafed, clustering palms native to southern China and parts of Laos, Vietnam, Thailand, and reportedly, Sumatra. Popularly called "Lady Palms", the ***Rhapis*** palms have long been treasured in the gardens of China and Japan, where numerous variegated cultivars have been selected and are painstakingly propagated by division. The handsome dark green foliage of ***Rhapis*** and the general tolerance of these palms for shady conditions have made them favorite subjects for interiors, courtyards, and container plantings. Although fairly slow growing, most species are rather hardy, withstanding drought and some frost.

Culture: ***Rhapis*** palms will adapt to direct sun, but develop their richest leaf coloring in full or partial shade. These shrubby trees accept light or heavy soils and grow at a moderate pace, gradually suckering to produce impressive specimens.

Rhapis excelsa

Common Name: Lady Palm
Cold Tolerance: 20ºF (-7ºC) **USDA Zones:** 9-11

Typical Height: 8' **Growth Rate:** Slow
Habit: Clustering

Status: On Request
Available Range: 3–100gal. B&B 2'–7'CT

Rhapis multifida

Common Name: Finger Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 10' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 7–25gal. B&B 2'–8'CT

Rhapis humilis

Common Name: Slender Lady Palm
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 8-11

Typical Height: 3–16' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 7–25gal.

Rhapis subtilis

Common Name: Thailand Lady Palm
Cold Tolerance: 22ºF (-6ºC) **USDA Zones:** 9-11

Typical Height: 5' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 3–45gal.

The genus
SABAL

The name was given by the French botanist, Michel Adanson (1727-1806) who did not state its origin, although it probably derives from a local Indian name.

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Sabalinae***

Sabal is the only genus in the subtribe ***Sabalinae***. This is a large genus of mostly hardy palms that includes 16 species bearing crowns of costapalmate (intermediate between fan-shaped and feather-shaped) leaves. The various species are native to the territories surrounding the Caribbean Sea and the Gulf of Mexico (the southeastern United States, Mexico, Central America, northern Columbia, Venezuela, Trinidad, and the island of Bermuda). Most ***Sabal*** grow in seasonally dry forests or savannah vegetation, but some inhabit swampy wetlands or coastal sand dunes. Trunks are solitary, either straight or gracefully curved, and vary from subterranean on dwarf species to upright columns 40 feet tall or more. Many ***Sabal*** retain a geometric pattern formed by the neatly split leaf bases ("boots") throughout life; others shed the boots entirely (or can be trimmed) to reveal the smooth, dark gray rings of the trunk. There are more than 10 different ***Sabal*** species, well suited for avenues, group plantings or any landscape purpose. Most of the species of ***Sabal*** offer excellent tolerance to cold and all are of great beauty. The Dwarf Palmetto of the southeastern United States (***Sabal*** *minor*) is one of the very few palms capable of surviving temperatures as low as -4ºF (-20ºC).

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Culture: ***Sabal*** palms accept sun or shade and will tolerate drought as well as severe flooding. The trees grow at a moderate pace and are generally cold hardy and adaptable.

Sabal bermudana

Common Name: Bermuda Palmetto
Cold Tolerance: 8ºF (-14ºC) **USDA Zones:** 8b-11

Typical Height: 20' **Growth Rate:** Slow to Moderate
Habit: Solitary

Status: Some In Stock
Available Range: 3–25gal. B&B 2'–6'CT

Sabal etonia

Common Name: Florida Scrub Palmetto
Cold Tolerance: 8ºF (-14ºC) **USDA Zones:** 8b-11

Typical Height: Trunkless **Growth Rate:** Very Slow
Habit: Solitary

Status: In Stock
Available Range: 1–15gal.

Sabal guatemalensis

Common Name: Maya Palm
Cold Tolerance: 8ºF (-14ºC) **USDA Zones:** 8b-11

Typical Height: 40' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 200–300gal. B&B 4'–15'CT

Sabal mexicana

Synonyms: ***Sabal*** *texana*
Common Names: Texas Palmetto, Texas Sabal Palm, Mexican Palmetto, Palma de Micharos
Cold Tolerance: 8ºF (-14ºC) **USDA Zones:** 8b-11

Typical Height: 40' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 15–300gal. B&B 2'–12'CT

Sabal minor

Common Name: Dwarf Palmetto, ***Latanier***
Cold Tolerance: 4ºF (-20ºC) **USDA Zones:** 8-11

Typical Height: 1'–6' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 3–45gal. 1 1/2'–5'OA

Sabal palmetto

Common Names: Cabbage Palm, Palmetto, Florida Sabal Palm
Cold Tolerance: 8ºF (-14ºC) **USDA Zones:** 8b-11

Typical Height: 40' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock - Also high bends, low bends, banana bends, ground runners and multi-trunked specimens.
Available Range: 15–300gal. B&B 3'–35'CT

Sabal uresana

Common Name: Sonoran Blue Palmetto
Cold Tolerance: 6ºF (-15ºC) **USDA Zones:** 8b-11

Typical Height: 30' **Growth Rate:** Moderate
Habit: Solitary

Status: Some In Stock
Available Range: 7–100gal

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Sabal x texensis

Common Name: Brazoria Palm, Sabal Lousiana
Cold Tolerance: 14ºF (-10ºC) **USDA Zones:** 8b-11

Typical Height: 25' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 30–200gal. B&B 6"–4'CT

Other Species of Sabal:
S. *causiarum* (in stock),
S. *domingensis*, ***S.*** *maritima*, ***S.*** *mauritiiformis*, ***S.*** *rosei*, ***S.*** *yapa*
(all occasionally available)

The genus
SERENOA

In honor of Sereno Watson, American botanist (1826-1892)

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Livistoninae***

The subfamily includes 12 genera such as ***Acoelorraphe, Copernicia, Livistona, Licuala, Pritchardia, Brahea***.

Serenoa is a monotypic genus (with one species, ***Serenoa*** *repens*) native to the southeastern United States (Florida, Georgia, Mississippi, Alabama, Louisiana, and South Carolina). ***S.*** *repens* gives a distinctive appearance to landscapes in the southeast United States, where it often dominates the vegetation under longleaf pines, creating formidable palmetto scrublands. With a useful shrubby habit and dense form, ***S.*** *repens* is ideal for hedges, barrier plantings, or seaside gardens, and reliably hardy to 14ºF (-10ºC). The common green-leafed Saw Palmetto has a lush brightness that adds a vivid note under the dark, moss-hung canopies of live oaks. The silver-leafed form of the species (sometimes called "***S.*** *repens v. glauca*") comes from Florida's Atlantic coast and is sought after by garden designers for its blue- white foliage, ethereal in moonlight. ***Serenoa*** produces tiny creamy flowers that emit an exotic fragrance on summer nights, and later ripen to rounded fruits prized as a natural medicinal thought to have anti-cancer properties. Readily available are nursery propagated ***S.*** *repens* in both green and silver-gray variations suited for immediate use in hedges, group plantings, or any landscape purpose.

Culture: ***Serenoa*** succeed in full sun or shade and tolerate heat and drought. Good drainage is essential and the plants should be well rooted in containers or thoroughly stabilized before planting. ***Serenoa*** *repens* thrives on sandy soils with an acid pH; silver forms of the species may be more tolerant of alkaline soils. Young plants should be protected from hard freezes.

Serenoa repens

Common Name: Saw Palmetto, Scrub Palmetto
Cold Tolerance: 14ºF (-10ºC) As their branching stems are partly underground, Saw Palmettos defoliated by frigid weather (5ºF or less) may survive and recover over several seasons.
USDA Zones: 8-11

Typical Height: 3'–6' **Growth Rate:** Slow
Habit: Clumping

Status: In Stock
Available Range: 15–100gal. 2'–6'OA

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The genus
SYAGRUS

From the Roman naturalist, Pliny, who referred to a kind of palm by the Latin name, "*syagrus*".

Synonyms: ***Arecastrum***, ***Arikuryoba***
Subfamily: ***Arecoideae***
Tribe: ***Cocoeae***
Subtribe: ***Butiinae***

The subtribe includes 9 related genera such as ***Butia, Cocos, Jubaea, Parajubaea,*** etc.

A sizable genus with over 30 species of pinnate-leaved palms native entirely to South America. The genus includes trunkless dwarfs, clustering varieties, and solitary stemmed species, some becoming tall trees. Most ***Syagrus*** produce very lush and beautiful crowns of plume-like foliage and one of the species, the Queen Palm (***S.*** *romanzoffiana*), has become a favorite in gardens, where it is valued for its elegant, dark green leaves, speedy growth, and tolerance to varied soils, heat, drought, and cold. The aromatic, colorful fruits appear in large clusters at various times of the year and usually ripen to shades of orange. ***S.*** *romanzoffiana* is one of the parents of the rare and wonderful hybrid palm, ***X Butiagrus*** *nabbonandii.*

Culture: ***Syagrus*** palms succeed in full sun or light shade. Good drainage is essential.

Syagrus romanzoffiana

Common Name: Queen Palm, Cocos Plumosa Palm
Cold Tolerance: 20ºF (-7ºC)
USDA Zones: 9b-11

Typical Height: 40'
Growth Rate: Fast
Habit: Solitary

Status: In Stock - curves available
Available Range: 15–100gal. B&B 4'–25'CT

Other Species of Syagrus: ***S.*** *archalavanta*, ***S.*** *botryophora*, ***S.*** *campylospatha*, ***S.*** *coronata* (all occasionally available)
S. *flexuosa*, ***S.*** *macrocarpa*, ***S.*** *picrophylia*, ***S.*** *pseudococos*, ***S.*** *ruschiana*, ***S.*** *schizophylla* (all on request)

The genus
TRACHYCARPUS

From the Greek "*trachys*", rough, "*carpos*", fruit, a poorly chosen name for a genus, which, in fact, possesses relatively smooth fruits!

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Thrinacinae***

The subtribe includes 14 related genera such as ***Chamaerops***, ***Rhapidophyllum***, ***Thrinax***, ***Rhapis***, etc...

This genus includes 8 species of fan-leafed palms native to mountainous regions of north India, Nepal, Thailand, and China. The species of ***Trachycarpus*** are solitary, dioecious palms, with separate flowers on male and female trees. In the wild these hardy palms inhabit forests, meadows, and rocky canyons or slopes at up to 7500 feet in elevation, and may be regularly covered with snows in winter. Several ***Trachycarpus*** species have become popular in horticulture for their resistance to cold and relatively rapid growth. The best known representative of the genus, the Chinese Windmill Palm, ***T.*** *fortunei* (sometimes still sold under the old name, ***Chamaerops*** *excelsa*) is one of the most commonly planted and best loved palms in gardens. The trunks of ***Trachycarpus*** species vary from just a few inches in height (***T.*** *nanus*) to over 50 feet (***T.*** *takil*). Although smooth and naked with age, in youth these stems are generally covered with matted brown fiber (a signature trait of the genus) which may assist trees in survival in their frost-prone habitats.

Culture: ***Trachycarpus*** species accept sun or shade and will tolerate drought. Good drainage is essential.

Trachycarpus fortunei

Common Names: Chinese Windmill Palm, Chusan Palm
Cold Tolerance: 5ºF (-15ºC) **USDA Zones:** 8-10A

Typical Height: 25' (but can grow as tall as 40')
Growth Rate: Moderate
Habit: Solitary

Status: In Stock, single, curved, & multi trunks
Available Range: 15–100gal. B&B 3'–18'CT

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Trachycarpus latisectus

Common Name: Windamere Palm, Sikkim Palm
Cold Tolerance: 5ºF (-15ºC) **USDA Zones:** 8-10a

Typical Height: 40' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 1–15gal.

Trachycarpus wagnerianus

Common Name: Dwarf Chusan Palm
Cold Tolerance: 0º F (-18ºC) **USDA Zones:** 7-10a

Typical Height: 20' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 15–100gal.
2'–14'CT

Trachycarpus takil

Common Name: Kumaon Palm, frequently confused with ***Trachycarpus*** *wagnerianus*
Cold Tolerance: 0º F (-18ºC) **USDA Zones:** 7-10a

Typical Height: 20' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 15–100gal.
2'–14'CT

Other species of Trachycarpus:
T. *martianus*, ***T.*** *nanus*, ***T.*** *oreophilus*
(all occasionally available)
T. *schizophylla* - only seedlings available

The genus

TRITHRINAX

From the Greek "*tri* ", three, and "*thrinax*", trident, a reference to the stiff, spine-tipped leaves

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Thrinacinae***

The subtribe includes 14 related genera such as ***Rhapidophyllum***, ***Trachycarpus***, ***Chamaerops***, ***Rhapis***, etc.

A small genus of 3 species native to the subtropical regions of South America in Brazil, Bolivia, Paraguay, Argentina, and Uruguay. In their natural habitats these palms endure a good deal of cold and also severe drought (except for ***T.*** *schizophylla*, which inhabits moist forest). ***Trithrinax*** belongs to the subfamily ***Coryphoideae***, considered to be primitive in the evolution of palms. The simple flowers of the genus ***Trithrinax*** have 3 sepals, 3 petals, 6 stamens, and 3 free carpels, a structure which botanists consider ancestral in design. These handsome, slow-growing palms may be solitary or clustering and produce stiff-fan-shaped leaves in either green or silvery tones, much like ***Chamaerops***.

Culture: ***Trithrinax*** succeeds in full sun or light shade and will tolerate extreme heat and drought. Good drainage is essential.

Trithrinax acanthocoma

Common Name: Spiny Fiber Palm
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-11

Typical Height: 15' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 15–300gal. 1'–15'CT

Trithrinax campestris

Common Name: South American Needle Palm, "Caranday" (Uruguay), "Saro" (Argentina)
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-11

Typical Height: 15' **Growth Rate:** Very Slow
Habit: Solitary

Status: In Stock
Available Range: 3–45gal. 6"–4' OA

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The genus
WASHINGTONIA

In honor of George Washington (1732-1799), first President of the United States of America

Subfamily: ***Coryphoideae***
Tribe: ***Corypheae***
Subtribe: ***Livistoninae***

The subtribe includes 12 related genera such as ***Acoelorraphe***, ***Brahea***, ***Copernicia***, ***Livistona***, ***Licuala***, ***Pritchardia***, *and* ***Serenoa***.

A genus of two species of palms, ***Washingtonia*** *filifera* and ***Washingtonia*** *robusta*, native to the southwestern United States (California, Arizona) and northwestern Mexico (Sonora, Baja California). In cultivation these two species may hybridize to produce an intermediate cross called "***Washingtonia*** *filibusta*". ***Washingtonia*** are desert palms that naturally inhabit edges of springs and watercourses, often growing in steep gorges or deep, protected canyons. They are impressively large and fast growing, with lush green crowns and imposing trunks that may attain great heights. If not trimmed away, the dried leaves develop into skirts of thatch ("petticoats") that give these palms a characteristic silhouette. Because of their hardiness and fast growth, ***Washingtonia*** are popular palms for gardens and street plantings, and are often set in large groupings. The numerous tiny flowers ripen to clusters of small blackish fruits favored by coyotes, who feast on them when ripe and distribute the stony brown seeds.

Culture: Both species of ***Washingtonia*** succeed in full sun or light shade and will tolerate extreme heat and drought. Good drainage is essential, but the trees enjoy access to abundant water.

Washingtonia filifera

Common Name: Desert Fan Palm, California Fan Palm, Petticoat Palm
Cold Tolerance: 12^{0}F (-11^{0}C) **USDA Zones:** 8b-11

Typical Height: 50' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 15–300gal B&B 2'–30'CT

Washingtonia robusta

Common Name: Mexican Fan Palm, Skyduster
Cold Tolerance: 20^{0}F (-7^{0}C) **USDA Zones:** 9-11

Typical Height: 70'–100' **Growth Rate:** Fast
Habit: Solitary

Status: On Request
Available Range: 15–100gal B&B 2'–30'CT

Washingtonia filifera x robusta

Common Name: Hybrid Fan Palm, Filibusta Palm
Cold Tolerance: 17^{0}F (-8^{0}C) **USDA Zones:**9-11

Typical Height: 50'–70' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock, - curved and multi-trunked
Available Range: B&B 5'–30'CT

Other Palms of Interest:
Wallichia *densiflora* (occasionally available)
Wallichia *disticha*, ***Wodyetia*** *bifurcata* (in stock)
Zombia *antillarum* (on request)

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BAMBOO

The various species of bamboo belong to the grass family (***Poaceae***), just as do maize, wheat, and the common grasses of lawns and meadows. Botanists consider the bamboos to be primitive "basal grasses" and place them in a unique subfamily, the ***Bambusoideae***. With 100 distinct genera and over 1000 species, the bamboos include the tallest and fastest growing grasses in the world. They differ from most other grasses in having specialized woody stems called "culms". Because many bamboos are evergreen, they make versatile landscape subjects, valued for use as natural screens, privacy hedges, or as dramatic specimens. Bamboos also give excellent service as soil stabilizers for erosion control on steep banks or stream edges, and they provide ideal noise baffles for abating urban traffic. Several varieties produce tender edible shoots, which may be harvested as they emerge from the ground and steamed for the table, and the larger bamboos provide a ready supply of sturdy canes invaluable for staking and light construction.

Because the bamboos offer unusually rapid growth, garden designers often use them to create instant landscape effects. Bamboo culms generally emerge and grow to their full height and thickness in only four to eight weeks. (According to David Farrelly in The Book of Bamboo some tropical species of bamboo have been observed growing as fast as 47.5" in a 24-hour period!) Initially the culms may be soft and fragile and will take up to a year to fully harden. New plantings generally increase only a few feet the first season, but the following year will often see new emerging culms as much as double in height and girth. The full size of each individual cane will be achieved the first year it emerges.

For practical horticultural purposes bamboos are classified into two main divisions: "running" and "clumping". In the running bamboos (i.e. ***Arundinaria***, ***Phyllostachys***, ***Pleioblastus***, ***Pseudosasa***, ***Sasa***, ***Semiarundinaria***, etc.) the underground stems may grow rapidly to reach varying distances from the parent plants before sending up new vertical shoots or stems ("culms"). In the clumping bamboos (i.e. ***Bambusa***, ***Otatea***) the rhizomes generally creep only a short distance before sending up new shoots.

Water provides a natural barrier to the spread of the more aggressive running bamboos, as they will not grow beyond the edge of a pond or stream. Physical barriers such as 80-mil to 120-mil plastic also provide an effective means of control when correctly installed around the clumps. Simply cutting off new shoots as they emerge or regular mowing in a 25' band around the bamboo will generally contain running varieties as well.

Most bamboos respond readily to the addition of abundant water and fertilizers, especially those high in nitrogen. These may be offered through the spring and summer months, as long as the clumps are actively growing. Another element important for bamboo is silica, which helps to provide much of the strength in the bamboo's stems. This can be beneficially supplied through specific fertilizers, such as Dyna-Gro Pro-Tekt 0-0-3.

The genus ARUNDINARIA

From the Latin word "*harundo*", a reed.

Subfamily: *Bambusoideae*

This once large genus of Asian and North American bamboos has been reduced to just a handful of varieties, all of a small to medium size, hardy, with elongate rhizomes. They have long-lived culm sheaths. ***A.*** *gigantea*, the only bamboo native to the United States, once grew from Texas to Georgia up to Ohio and Maryland forming vast thickets. They are useful for establishing screening and erosion control on banks, as their rhizomes can spread quite a distance rapidly.

Culture: ***Arundinaria*** grows well in sun to partial shade, most soils, liking regular amounts of moisture. The variety '*Tecta*' is even able to withstand soggy ground.

Arundinaria gigantea

Common Name: Southern Canebrake, Macon Rivercane Bamboo
Cold Tolerance: -22°F (-30°C) **USDA Zones:** 6-11

Typical Height: 20' **Typical Cane Diameter:** 1"
Habit: Running

Status: Available
Available Range: 7–15gal.

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A. gigantea subspecies 'Tecta'

Common Name: Switchcane Bamboo
Cold Tolerance: -10ºF (-23ºC) **USDA Zones:** 6-11

Typical Height: 10' **Typical Cane Diameter:** 1/2"
Habit: Running

Status: Available

Available Range: 7–15gal.

The genus BAMBUSA

From a Malayan name for bamboo.

Subfamily: ***Bambusoideae***

Bambusa is a large and variable genus comprised of evergreen clumping bamboo native to China and southeast Asia. Some of the species become huge, providing valuable timber as well as edible young shoots. Several are valued for garden adornment, with one species, ***Bambusa*** *multiplex*, providing numerous cultivars suitable for screens and general hedging in the southeastern U.S.

Culture: ***Bambusa*** species thrive in sun or light shade if provided with abundant moisture and rich soil. In hot interior climates or where drought may be expected some shading will be beneficial. Established plants will withstand flooding.

Bambusa beecheyana

Common Name: Beechey Bamboo
Cold Tolerance: 15ºF (-9ºC) **USDA Zones:** 8b-11

Typical Height: 30'–50' **Typical Cane Diameter:** 5"
Habit: Clumping

Status: In Stock
Available Range: 15–100gal. 10'–20' OA

Bambusa dolichomerithalla 'Green Stripe'

Cold Tolerance: 15ºF (-9ºC) **USDA Zones:** 8b-11

Typical Height: 25'–35' **Typical Cane Diameter:** 2"
Habit: Clumping

Status: Available
Available Range: 15–30gal.

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BAMBOO

Bambusa malingensis

Common Name: Seashore Bamboo
Cold Tolerance: 20ºF (-7ºC) **USDA Zones:** 9-11

Typical Height: 15' – 20' **Typical Cane Diameter:** 2 1/2"
Habit: Clumping

Status: In Stock
Available Range: 15–45gal. 8–14' OA

Bambusa multiplex

Common Name: Hedge Bamboo
Cold Tolerance: 12ºF (-11ºC) **USDA Zones:** 8b-11

Typical Height: 15' – 20' **Typical Cane Diameter:** 1 1/2"
Habit: Clumping

Status: In Stock
Available Range: 7–45gal. 5'–15' OA

Bambusa multiplex 'Alphonse Karr'

Common Name: Alphonse Karr, Striped Hedge Bamboo
Cold Tolerance: 12ºF (-11ºC) **USDA Zones:** 8b-11

Typical Height: 15' – 25' **Typical Cane Diameter:** 1 1/2"
Habit: Clumping

Status: In Stock
Available Range: 15–65–gal. 10–20' OA

Bambusa multiplex 'Fernleaf'

Common Name: Fernleaf Bamboo
Cold Tolerance: 12ºF (-11ºC) **USDA Zones:** 8b-11

Typical Height: 15' – 20' **Typical Cane Diameter:** 1/2"
Habit: Clumping

Status: In Stock
Available Range: 15–30gal. 6'–10' OA

Bambusa multiplex 'Golden Goddess'

Common Name: Golden Goddess Bamboo
Cold Tolerance: 12ºF (-11ºC) **USDA Zones:** 8b-11

Typical Height: 10' **Typical Cane Diameter:** 1/2"
Habit: Clumping

Status: In Stock
Available Range: 15–45gal. 4'–10' OA

Bambusa multiplex 'Riviereorum'

Common Name: Chinese Goddess Bamboo
Cold Tolerance: 12ºF (-11ºC) **USDA Zones:** 8b-11

Typical Height: 7' **Typical Cane Diameter:** 1/4"
Habit: Clumping

Status: In Stock
Available Range: 7–15gal. 4'–6' OA

Bambusa multiplex 'Silver Stripe'

Common Name: Silver Stripe Bamboo
Cold Tolerance: 12ºF (-11ºC) **USDA Zones:** 8b-11

Typical Height: 25' **Typical Cane Diameter:** 1 1/2"
Habit: Clumping

Status: In Stock
Available Range: 15–100gal. 10'–15' OA

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Bambusa oldhamii

Common Name: Giant Timber Bamboo
Cold Tolerance: 15ºF (-9ºC)
USDA Zones: 8b-11

Typical Height: 40'–55'
Typical Cane Diameter: 4"
Habit: Clumping

Status: In Stock
Available Range:
10–300gal. B&B 8'–28' OA

Bambusa textilis

Common Name: Weavers Bamboo, Wong Chuk Bamboo
Cold Tolerance: 12ºF (-11ºC) **USDA Zones:** 8b-11

Typical Height: 35' **Typical Cane Diameter:** 2"
Habit: Clumping

Status: In Stock
Available Range: 15–65gal.
10'–20' OA

Bambusa textilis var. gracilis

Common Name: Graceful Textile Bamboo
Cold Tolerance: 15ºF (-9ºC) **USDA Zones:** 8b-11

Typical Height: 30' **Typical Cane Diameter:** 1 1/4"
Habit: Clumping

Status: Available
Available Range: 30–100gal.
10'–20' OA

Bambusa tuldoides

Common Name: Punting Pole Bamboo
Cold Tolerance: 15ºF (-9ºC) **USDA Zones:** 8b-11

Typical Height: 40'-50' **Typical Cane Diameter:** 2 1/4"
Habit: Clumping

Status: In Stock
Available Range: 15–100gal. 10'–15' OA

Bambusa tuldoides 'ventricosa'

Common Name: Buddha's Belly Bamboo
Cold Tolerance: 15ºF (-9ºC) **USDA Zones:** 8b-11

Typical Height: 40' **Typical Cane Diameter:** 2 1/4"
Habit: Clumping

Status: In Stock
Available Range: 30–100gal. 10'–20' OA

The genus HIBANOBAMBUSA

From the Japanese term translating "Bamboo growing on Hiba Mountain."

Subfamily: ***Bambusoideae***

This genus consists of but one species plus one cultivar, and is believed to be a hybrid cross of ***Sasa*** *veitchii* and ***Phyllostachys*** *nigra 'Henon'*. It clearly shows characteristics of both genera, with its large Sasa-like leaves and the distinctive groove - "*sulcus*" - running along its canes.

Culture: ***Hibanobambusa*** needs a bit of shade, growing well in moderately, well-drained, non-allkaline soil, with moderate to regular watering. Doing quite well in warm and even tropical climates, these plants withstand windy conditions as well.

Hibanobambusa tranquillans 'Shiroshima'

Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-11

Typical Height: 12'–16' **Typical Cane Diameter:** 1 1/4"
Habit: Clumping

Status: In Stock
Available Range: 15- 45gal.
4' - 8' OA

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The genus
INDOCALAMUS

From the Latin "*indicus*", of India, but often used, as in this instance, to refer to plants of China, and the Greek "*kalamos*", a reed.

Subfamily: *Bambusoideae*

Indocalamus are a small, shrubby running bamboo native to China. These species are valued in gardens for their unusually lush foliage, which causes the slender canes to bend gracefully outwards, giving the clumps a rounded aspect. The dark green, oversized foliage often becomes straw colored at the tips during the winter, making a striking contrast in the landscape.

Culture: *Indocalamus* species thrive in partial sun or light shade if provided with abundant moisture and rich soil. In hot interior climates or where drought may be expected full shading will be beneficial. Established plants withstand flooding.

Indocalamus tesselatus

Common Name: Large-leafed Bamboo, ***Sasa*** *tesselata*
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 7' **Typical Cane Diameter:** 1/2"
Habit: Running

Status: In Stock
Available Range: 7–15gal. 3 – 6' OA

The genus
OTATAEA

From the Aztec "*otate*", the vernacular name for members of the genus.

Subfamily: *Bambusoideae*

Otatea is a small genus of clumping bamboo native from western and southern Mexico to Guatemala. The arching culms carry feathery whorls of narrow, pale green leaflets that make this bamboo especially graceful and uniquely luminous in garden plantings. Although lush in appearance, ***Otatea*** comes from hot, seasonally arid regions and is a very enduring garden plant.

Culture: *Otatea* succeeds in full sun or shade and tolerates a wide range of soils, including limestone and heavy clay. The plants enjoy abundant moisture during their summer growing season, but will withstand drought once established.

Otatea acuminata

Common Name: Mexican Weeping Bamboo
Cold Tolerance: 22ºF (-6ºC) **USDA Zones:** 9-11

Typical Height: 20' **Typical Cane Diameter:** 1 1/2"
Habit: Clumping

Status: In Stock
Available Range: 15–65gal. 4'– 8' OA

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The genus
PHYLLOSTACHYS

From the Greek "*phyllon*", leaf, and "*stachys*", a spike, referring to the leafy bloom spike (*inflorescence*).

Subfamily: *Bambusoideae*

A diverse genus of about 15 species of evergreen running bamboo primarily native to temperate and subtropical China and Japan, ***Phyllostachys*** includes several popular bamboo of gardens as well as varieties valued for timber and for edible shoots. The rounded culms display distinctive grooves or compressed areas on the branching sides, making this genus fairly easy to recognize and distinguish from other bamboo. Their dense evergreen foliage, attractively marked and colored culms, and fast growth have made these running bamboos favorites for creating large groves, for screening and hedging, and for stabilizing rough slopes or streamsides. On small properties the spreading roots of ***Phyllostachys*** may be confined as desired by installing appropriate barriers at planting.

Culture: ***Phyllostachys*** species thrive in sun or light shade if provided with abundant moisture and rich soil. Where drought may be expected or in hot interior climates, some shading would be beneficial for most varieties. Established plants withstand flooding.

Phyllostachys angusta

Common Name: Stone Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 20' **Typical Cane Diameter:** 1 1/4"
Habit: Running

Status: Available
Available Range: 15–30 gal. 6' - 10' OA

Phyllostachys aurea

Common Name: Golden Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 22' **Typical Cane Diameter:** 1 3/4"
Habit: Running

Status: In Stock
Available Range: 15–30gal. 6'–15' OA

Phyllostachys aurea 'Koi'

Common Name: Koi Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 22' **Typical Cane Diameter:** 1 3/4"
Habit: Running

Status: Available
Available Range: 10–30gal. 3' - 7' OA

Phyllostachys aureosulcata

Common Name: Yellow Groove Bamboo
Cold Tolerance: -10ºF (-23ºC) **USDA Zones:** 6-9

Typical Height: 27' **Typical Cane Diameter:** 1 1/2"
Habit: Running

Status: In Stock
Available Range: 5–100gal. 8 – 20' OA

Phyllostachys bambusoides

Common Name: Hardy Timber Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 50'-60' **Typical Cane Diameter:** 5"
Habit: Running

Status: Available
Available Range: 15–100gal. 6'–25' OA

P. bambusoides 'Allgold'

Common Name: Allgold Bamboo
Cold Tolerance: -5ºF (-15ºC) **USDA Zones:** 7b-9

Typical Height: 28' - 35' **Typical Cane Diameter:** 2"
Habit: Running

Status: Available
Available Range: 15–100gal. – 4'–12' OA

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BAMBOO

P. bambusoides 'Castillon'

Common Name: Castillon Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 28' - 35' **Typical Cane Diameter:** 2"
Habit: Running

Status: Available
Available Range: 15–100gal. 4'–12' OA

Phyllostachys bissetii

Common Name: Bisset's Bamboo
Cold Tolerance: -15ºF (-26ºC) **USDA Zones:** 5b-9

Typical Height: 28' **Typical Cane Diameter:** 2"
Habit: Running

Status: In Stock
Available Range: 30–45gal. 15'–25' OA

Phyllostachys dulcis

Common Name: Sweetshoot Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 30' **Typical Cane Diameter:** 3 3/4"
Habit: Running

Status: In Stock
Available Range: 5–300gal. 7'–20' OA

Phyllostachys edulis

(Known formerly as Phyllostachys heterocycla 'pubescens')
Common Name: Moso Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 80' **Typical Cane Diameter:** 7"
Habit: Running

Status: In Stock
Available Range: 15–300gal. 7–20' OA

Phyllostachys manii 'Manii'

Common Name: Manii Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 20' **Typical Cane Diameter:** 2"
Habit: Running

Status: Available
Available Range: 10– 30gal. 5'–10' OA

Phyllostachys nigra

Common Name: Black Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 30' **Typical Cane Diameter:** 2"
Habit: Running

Status: In Stock
Available Range: 15–100gal. 5'–15' OA

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Phyllostachys nigra ‘Henon’

Common Name: Henon Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 55’ **Typical Cane Diameter:** 4 1/4”
Habit: Running

Status: In Stock
Available Range: 7–100gal. 7’–20’ OA

Phyllostachys nigra ‘Shimadake’

Common Name: Shimadake Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 40’ **Typical Cane Diameter:** 3”
Habit: Running

Status: Available
Available Range: 7gal.–24” box
10’–20’ OA

Phyllostachys rubromarginata

Cold Tolerance: -5ºF (-21ºC) **USDA Zones:** 6b-9

Typical Height: 50’ **Typical Cane Diameter:** 2 3/4”
Habit: Running

Status: Available
Available Range: 10–65gal. 4’–14’ OA

Phyllostachys viridis ‘Houzeau’

Common Name: Houzeau Bamboo
Cold Tolerance: -5ºF (-21ºC) **USDA Zones:** 6b-9

Typical Height: 45’ **Typical Cane Diameter:** 3”
Habit: Running

Status: In Stock
Available Range: 15–300gal. 10–20’ OA

Phyllostachys viridis ‘Robert Young’

Common Name: Robert Young Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 32’-40’ **Typical Cane Diameter:** 3”
Habit: Running

Status: In Stock
Available Range: 15–100gal. 10’–20’ OA

Phyllostachys vivax

Common Name: Vivax Bamboo
Cold Tolerance: -8ºF (-22ºC) **USDA Zones:** 6-9

Typical Height: 55’ **Typical Cane Diameter:** 5”
Habit: Running

Status: In Stock
Available Range: 15–100gal. 5’–15’ OA

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The genus
PLEIOBLASTUS

From the Greek "*pleios*", many, and "*blastos*", bud, a reference to the numerous buds and shoots formed from the nodes of these bamboos.

Subfamily: *Bambusoideae*

Small or shrub-like running bamboos native mostly to China and the islands of Honshu, Shikaku, and Kyushu in Japan. ***Pleioblastus*** are valued in gardens for their profuse leafy running shoots, which may be cut back and sheared as a hedge, or left to form a natural stand of arching canes. Dwarf species may be mowed as a ground-cover. Several cultivars have been selected for their beautifully variegated foliage.

Culture: ***Pleioblastus*** thrive in sun or light shade if provided with abundant moisture and rich soil. In hot interior climates or where drought may be expected, some shading will be beneficial for most varieties. Established plants withstand flooding.

Pleioblastus distichus

Common Name: Dwarf Fernleaf Bamboo
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-9

Typical Height: 2' **Typical Cane Diameter:** 1/8"
Habit: Running

Status: Occasionally Available
Available Range: 1–15gal. 1'–2' OA

Pleioblastus fortunei

Common Name: Dwarf Whitestripe Bamboo
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-9

Typical Height: 4' **Typical Cane Diameter:** 1/4"
Habit: Running

Status: In Stock
Available Range: 1–5gal. 1'–2' OA

Pleioblastus pygmaeus

Common Name: Pygmy Bamboo
Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-9

Typical Height: 2' **Typical Cane Diameter:** 1/8"
Habit: Running

Status: In Stock
Available Range: 5–15gal 1/2'–2' OA

P. shibuyanus 'Tsuboi'

Common Name: Tsuboi Bamboo
Cold Tolerance: -5ºF (-21ºC) **USDA Zones:** 6b-9

Typical Height: 9' **Typical Cane Diameter:** 1/4"
Habit: Running

Status: In Stock
Available Range: 5–15gal. 2'–5' OA

Pleioblastus simonii 'Variegatus'

Common Name: Variegated Medake Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 18' **Typical Cane Diameter:** 1 1/2"
Habit: Running

Status: In Stock
Available Range: 15–65gal 4'–12' OA

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The genus
PSEUDOSASA

From the Greek "*pseudos*", meaning false, and the Japanese word "*sasa*", meaning slight.

Subfamily: *Bambusoideae*

A genus of 30–35 small to medium sized bamboo, which usually have only one branch at a node. They tend to have rather large leaves, with all except ***Psuedosasa*** *amabilis,* being less than 24 feet tall at maturity. Their super erect culms support an orderly mass of dark green leaves and are less invasive than other runners.

Culture: Requiring light or medium shade, ***Psuedosasa*** does well in most soils and requires medium watering.

Pseudosasa japonica

Common Name: Arrow Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7-9

Typical Height: 18' **Typical Cane Diameter:** 3/4"
Habit: Running

Status: In Stock
Available Range: 7–30gal. 4'–10' OA

The genus
SASA

From the Japanese word "*sasa*", slight and/or "*sasae*", stay or support.

Subfamily: *Bambusoideae*

Quite a large genus of vigorous, running species of smaller bamboo capable of forming dense and broad thickets even though they may seem slow to establish. Their culms are cylindrical and curve from their base. Their large leaves are borne on slender stems with one or a few branches at each node. In the wild they are found on uplands often dominating the surrounding vegetation.

Culture: ***Sasa*** bamboos enjoy growing in open positions, as well as shade, tolerating a wide range of soils. They prefer moderate to regular watering. Established plants can withstand flooding.

Sasa palmata

Cold Tolerance: -5ºF (-21ºC) **USDA Zones:** 6 - 9

Typical Height: 7' **Typical Cane Diameter:** 1/2"
Habit: Running

Status: In Stock
Available Range: 7–15gal. 1'– 4' OA

Sasa veitchii

Common Name: Kuma Zasa Bamboo
Cold Tolerance: 0ºF (-18ºC) **USDA Zones:** 7 - 9

Typical Height: 5' **Typical Cane Diameter:** 1/3"
Habit: Running

Status: In Stock
Available Range: 1–10gal. .3' –1' OA

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The genus
SEMIARUNDINARIA

From the Latin "*semi*", meaning half, and "*arundo*", a reed.

Subfamily: *Bambusoideae*

The species of ***Semiarundinaria*** are tall or shrub-like running bamboos native to temperate and subtropical China and Japan. Their mostly stiff, upright culms give ***Semiarundinaria*** a distinctively formal appearance and make a small grove a stately accent for an interior courtyard or atrium.

Culture: *Semiarundinaria* thrives in partial sun or light shade with abundant moisture and rich soil. In hot interior climates or where drought may be expected full shading will be beneficial. Established plants withstand flooding.

Semiarundinaria fastuosa

Common Name: Japanese Palm Tree Bamboo, Narihira Bamboo
Cold Tolerance: -4ºF (-20ºC) **USDA Zones:** 6b-9

Typical Height: 20'-28' **Typical Cane Diameter:** 1 1/2"
Habit: Running

Status: In Stock
Available Range: 7–30gal. 3'–14' OA

The genus
SHIBATAEA

In honor of the Japanese botanist, Keita Shibata (1877-1949)

Subfamily: *Bambusoideae*

Shibataea are small shrub-like clumping or slowly running bamboos native to China and Japan. Their thin culms have a slightly zig-zag aspect and carry dense coverings of foliage from the tiny whorled branchlets, making for well-furnished specimens, looking like a miniature ***Phyllostachys,*** ideal for garden use.

Culture: *Shibataea* thrives in full or partial shade with abundant moisture and rich, well drained acid soil. Established plants withstand flooding, yet do not enjoy a windy exposure.

Shibataea kumasaca

Common Name: Kumasaca Bamboo
Cold Tolerance: -5ºF (-21ºC) **USDA Zones:** 6b-9

Typical Height: 7' **Typical Cane Diameter:** 1/3"
Habit: Running

Status: In Stock
Available Range: 7–30gal. 3'–6' OA

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The genus
SINOBAMBUSA

Literally “bamboo of Japan.”

Subfamily: *Bambusoideae*

A small family of thicketing bamboos, with prominent nodes and cylindrical culms that are similar to ***Semiarundinaria*** but for the fact that their culm leaves fall off promptly. Most species are tall and upright, well branched with fairly stiff and narrow leaves erupting in thick sprays. They are useful as a hedge or tall screen.

Culture: *Sinobambusa* enjoys a well drained soil in a position of light to partial shade. They like regular watering, and in Japan, these noble plants are often trimmed back to one or two nodes to give a pompom effect. The species ‘***Albostriata***’ has bold white variegated leaves that make an impressive impact.

Sinobambusa tootsik ‘Albostriata’

Cold Tolerance: 10ºF (-12ºC) **USDA Zones:** 8-11

Typical Height: 30’ **Typical Cane Diameter:** 1 1/2”
Habit: Running

Status: Available
Available Range: 15–65gal. 6’–14’

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CYCADS

Cycads are among the most primitive "*gymnosperms*" (plants whose seeds are not enclosed in an ovary like those of flowering plants). Although palm-like in appearance, they are actually ancient cousins of pines and ginkgos, and their fossil history can be traced back more than 200 million years.

The unique seeds of cycads are born on "*sporophylls*" (literally seed leaves) arranged spirally into cones. Cycads are tough and durable plants, with either arborescent or subterranean stems. In the garden, some species adapt to full sun and drought while others require moist and shady conditions. Many cycads are endangered in their native habitats and for this reason are regulated by the **Convention on International Trade of Endangered Species**, or **CITES**.

There are some 289 species in 11 genera. Only 8 or 10 species, representing 5 genera, are common in horticulture. Since the 1980's, the popularity of cycads has grown at a remarkable rate. That is why we here at HCI have sought to make these rare and beautiful plants available.

The genus BOWENIA

Bowenia is named in honor of Sir George Bowen (1821-1899), the first Governor of Queensland, Australia.

Family: ***Stangeriaceae***
Subfamily: ***Bowenioideae***
Tribe: ***Zamiineae***

Bowenia is a genus of 2 species, *serrulata* and *spectabilis*, distributed in tropical Australia, mainly in low coastal areas of Queensland with some populations extending into the Atherton Tableland. The habitats include rain forest and woodland margins, ranging from sea level to 2000 ft. ***Bowenia*** is distinctive with bipinnate, sometimes tripinnate leaves. ***Bowenias*** can easily be mistaken for large Maidenhair Ferns (*Adiantum*). ***Bowenia*** *serrulata* can be separated from ***B.*** *spectabilis* by noting the presence of serrations or teeth along the margins of the leaflets. In ***B.*** *spectabilis*, the margins are entire, though in some cases the leaflets may be lacerate.

Culture: ***Bowenias*** are basically understory plants, preferring half shade and open well-drained soil with plenty of fertility.

Bowenia serrulata

The epithet, "*serrulata*", is Latin for serrate, referring to the margins of the leaflets.

B. *serrulata* also has a variant population called "*Tinaroo*" found between 1400 ft. and 2300 ft. along the Tinaroo Dam on the Atherton Tableland in Central Queensland. Plants from this area differ by the leaflet margins, being more narrow and finely serrated. The new emergent growth is bronze in color, making them particularly striking.

Common Name: Byfield Fern
Cold Tolerance: 32°F (0°C) **USDA Zones:** 10-11

Typical Height: 3.5'–6.5' **Growth Rate:** Moderate
Habit: Solitary

Status: Available
Available Range: Liners to 7gal.

Bowenia spectabilis

The specific epithet is derived from "*spectans*", Latin meaning to be seen or esteemed.

Common Name: Zamia Fern
Cold Tolerance: 28°F (-2°C) **USDA Zones:** 10-11

Typical Height: 3.5'–6.5' **Growth Rate:** Slow to moderate
Habit: Solitary

Status: In Stock
Available Range: Liners to 7gal.

The genus CERATOZAMIA

From the Greek "*ceras*", horn, and "*azaniae*", cone, in reference to the paired spine-like projections on the "*sporophylls*" (cones) of male and female plants in this genus.

Family: ***Zamiaceae***
Subfamily: ***Zamioideae***
Tribe: ***Ceratozamieae***

The tribe includes only the single genus ***Ceratozamia***

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This is a small genus of about 11 cycads native in Mexico, Belize, and Guatemala, often growing on limestone soils. The new leaves emerge in attractive flushes from early to late summer, usually tinted strongly with red or brownish tones. This makes a showy contrast to the lush greenery of the mature leaves, which carry numerous flattened leaflets attached to lax petioles with a few prickles near the base. Several species of ***Ceratozamia*** from the sierras of eastern Mexico have proven very hardy to frost. When well grown, these are among the most elegant of the cycads.

Culture: ***Ceratozamia*** species accept morning or half day sun, but are most luxuriant when grown under shaded conditions. Established plants tolerate drought. Good drainage and shelter from wind are essential.

Ceratozamia hildae

Common Name: Bamboo Cycad
Cold Tolerance: 23°F (-5°C) **USDA Zones:** 9b-11

Typical Height: 2.5'–6' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 7–15gal.

Ceratozamia kuesteriana

Common Name: Cloud Forest Cycad
Cold Tolerance: 18°F (-8°C) **USDA Zones:** 8b-11

Typical Height: 3.5'–6' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 7–15gal.

Ceratozamia mexicana

Common Name: Mexican Horncone Cycad
Cold Tolerance: 23°F (-5°C) **USDA Zones:** 9b-11

Typical Height: 3.5'– 6' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 3–15gal.

Ceratozamia robusta

Cold Tolerance: 23°F (-5°C) **USDA Zones:** 9b-11

Typical Height: 3'– 6' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 3–15gal.

Other Species of Ceratozamia:
C. *latifolia,* ***C.*** *microstobila* (in stock),
C. *miqueliana,* ***C.*** *sabatoi* (occasionally available),
C. *norstogii* (on request), ***C.*** *whitelockiana* (looking for)

Cycads contain the oldest known species of plants.

The genus
CHIGUA

Chigua is the common name used by a few Central and South American Indians for species of ***Zamia***.

Family: ***Zamiaceae***
Subfamily: ***Zamioideae***
Tribe: ***Zamieae***
Subtribe: ***Zamiinae***

Chigua is the latest genus named, has but two species, and together with most of the cycad genera, form the family ***Zamiaceae***. These small cycads are found in northern Columbia's rainforests at elevations of 250-500 feet.

Culture: ***Chigua*** prefers thick leaf litter with a consistent moisture level in shaded conditions. It makes an ideal specimen plant in an intimate garden.

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Chigua bernalii

Cold Tolerance: 23°F (-5°C) **USDA Zones:** 9b-11

Typical Height: 3.3'–4.5' **Growth Rate:** Slow to Moderate
Habit: Clustering

Status: Looking For

Chigua restrepoi

The name is in honor of Padre Sergio Restrepo (d. 1989), a Colombian botanist who rediscovered this cycad.

Cold Tolerance: 23°F (-5°C) **USDA Zones:** 9b-11

Typical Height: 4'–6' **Growth Rate:** Slow
Habit: Solitary

Status: Looking For

The genus
CYCAS

From the Greek "*koikas*", a name used by Theophrastus for a species of palm.

Family: ***Cycadaceae***

This is a large genus of shrubby cycads native to China, Taiwan, Southeast Asia, India, the Ryukyu Islands, and Australia, with one species (***Cycas*** *thouarsii*) in Madagascar and adjacent parts of Africa. These primitive cycads develop lush crowns of foliage from leaves which emerge from felted or hairy leaf stems with the individual leaflets unfurling from tight coils like a fern. The male flowers appear in a cone; female flower parts are organized in a loose cone-like structure, eventually bearing large, usually reddish seeds. Several of the species are hardy to frost and a number regularly experience fire in habitat. The genus includes several beloved ornamentals of tropical and subtropical gardens.

Culture: ***Cycas*** species accept sun or light shade and will tolerate drought. Good drainage is essential.

Cycas panzhihuaensis

Common Name: Dukou Sago Palm
Cold Tolerance: 18°F (-8°C) **USDA Zones:** 9-11

Typical Height: 3.3'–10' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 3–10gal.

Cycas revoluta

Common Name: King Sago Palm
Cold Tolerance: 18°F (-8°C) **USDA Zones:** 9-11

Typical Height: 4'–12' **Growth Rate:** Slow to Moderate
Habit: Clustering

Status: In Stock (multi-trunked and multi-headed specimens)
Available Range: 15–300gal.

Cycas taitungensis

Common Name: Prince Sago Palm, Cycas taiwaniana
Cold Tolerance: 18°F (-8°C) **USDA Zones:** 9-11

Typical Height: 3.3'–16' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 7–100gal.

Other Species of Cycas:
C. *apoa,* ***C.*** *circinalis,* ***C.*** *macrocarpa,* ***C.*** *media,* ***C.*** *tansachana* (in stock)

C. *couttsiana,* ***C.*** *megacarpa,* ***C.*** *micholitzii,* ***C.*** *ophiolitica,* ***C.*** *thouarsii,* (occasionally available)

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The genus
DIOON

From the Greek "*dis*", two, and "*oon*", an egg, in reference to the paired ovules in the female "*sporophyll*" (cone).

Family: ***Zamiaceae***
Subfamily: ***Encephalartoideae***
Tribe: ***Diooeae***

The tribe includes only the single genus ***Dioon***.

This is a striking genus of robust trunk forming cycads with at least nine species native to Mexico and one to Honduras. The stiffly held pinnate leaves bear numerous narrowly pointed leaflets attached at sharp angles to the *rachis* (leaf stem), so that the individual leaves of many ***Dioon*** resemble feathers. Most species have foliage of a beautiful blue-gray color, making them especially distinctive in garden display. Several ***Dioon*** species occur at moderate elevations in the Mexican sierras and show excellent tolerance to frost.

Culture: ***Dioon*** species accept sun, but are most luxuriant when grown under shaded conditions. Established plants tolerate drought. Good drainage is essential.

Dioon edule

Common Name: Mexican Sago Palm, Chamal, Palma de la Virgen
Cold Tolerance: 14ºF (-10ºC) **USDA Zones:** 8b-11

Typical Height: 5'–10' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 15–65gal.

Other species of Dioon: ***D.*** *califanoi,* ***D.*** *edule var angustifolium,* ***D.*** *edule var edule Queretaro,* ***D.*** *mejiae,* ***D.*** *merolae,* ***D.*** *spinulosum* (all in stock)

The genus
ENCEPHALARTOS

From the Greek "*en*", in, "*cephale*", head, and "*artos*", bread, in reference to the starchy, edible trunks common to some species of the genus.

Family: ***Zamiaceae***
Subfamily: ***Encephalartoideae***
Tribe: ***Encephalarteae***
Subtribe: ***Encephalartinae***

The subtribe includes only the single genus ***Encephalartos***.

This is a very large genus of about 50 species of shrubby cycads native largely to southern Africa, but with species also occuring in eastern and central Africa. Most ***Encephalartos*** varieties produce suckers from the base along the trunks and slowly develop into spectacular ornamentals with handsome crowns of pinnate, often prickly fronds. The leaves vary from rich green tones to silvery grays. The female cones of some species such as ***Encephalartos*** *ferox* burst when ripe to offer the added ornament of glossy red seeds. ***Encephalartos*** species from tropical Africa require near frost–free conditions; species from the winter rainfall areas of South Africa prefer cool temperate or Mediterranean climates; varieties from the mountains of Natal and the Transvaal adapt to hot summer climates and may tolerate hard frosts.

Culture: ***Encephalartos*** species accept sun or shade and will tolerate drought. Good drainage is essential.

Encephalartos arenarius

Cold Tolerance: 28ºF (-2ºC) **USDA Zones:** 10-11

Typical Height: 6–8' **Growth Rate:** Slow
Habit: Solitary

Status: Occasionally Available
Available Range: 7–25gal.

Encephalartos hildebrandtii

Cold Tolerance: 24ºF (-5ºC) **USDA Zones:** 9b-11

Typical Height: 1'–20' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 7– 45gal.

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Encephalartos lehmannii

Cold Tolerance: 20ºF (-7ºC) **USDA Zones:** 9-11

Typical Height: 1'–5' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 7–65gal.

Encephalartos natalensis

Common Name: Natal Cycad
Cold Tolerance: 23ºF (-5ºC) **USDA Zones:** 9b-11

Typical Height: 10'–13' **Growth Rate:** Slow
Habit: Solitary

Status: On Request
Available Range: 1–3gal.

Othe Species of *Encephalartos*:
E. *friderici - guilielmi,* ***E.*** *horridus* (in stock)
E. *trispinosus* (in stock 3-45gal.)

E. *caffer,* ***E.*** *eugene - maraisii,* ***E.*** *ghellinckii,* ***E.*** *lanatus,* ***E.*** *latifrons,* ***E.*** *lebomboensis,* ***E.*** *senticosus* (occasionally available)

E. *altensteinii,* ***E.*** *cycadifolius,* ***E.*** *longifolius* (on request)

E. *hirsutus,* ***E.*** *princeps,* ***E.*** *tegulaneus,* ***E.*** *transvenosus,* ***E.*** *woodii* (looking for)

The genus LEPIDOZAMIA

From the Greek "*lepis*", scale, and "*azaniae*", cone, in reference to the scale like pattern of the cones and of the old frond bases which cover the stems of the species.

Family: ***Zamiaceae***
Subfamily: ***Encephalartoideae***
Tribe: ***Encephalarteae***
Subtribe: ***Macrozamiinae***

The subtribe includes only the single genus ***Macrozamia***.

Lepidozamia is a small genus of two species of cycads distributed is eastern Austrialia. Both of the species are solitary and remain unbranched throughout life. The slender leaflets have no mid rib and join a smooth leaf stem (*rachis*), with the large, feathery leaves emerging in flushes alternating with cones (*cataphylls*). One of the species, ***Lepidozamia*** *hopei*, is the tallest of all cycads and in its sheltered tropical rainforest home may develop an erect trunk up to 60 feet tall. The other species, ***Lepidozamia*** *peroffskyana*, is more modest in height, to 20 feet, and more adaptable to exposed habitats, tolerating the moderate frosts common to its home in coastal New South Wales and Southern Queensland, an area with several other fairly hardy cycads.

Culture: ***Lepidozamia*** species grow well under shaded conditions. Established plants tolerate drought. Good drainage is essential.

Lepidozamia hopei

Cold Tolerance: 28ºF (-2ºC) **USDA Zones:** 10-11

Typical Height: 25'–35' **Growth Rate:** Fast
Habit: Solitary

Status: In Stock
Available Range: 7–15gal

Lepidozamia peroffskyana

Cold Tolerance: 23ºF (-5ºC) **USDA Zones:** 9b-11

Typical Height: 14'–20' **Growth Rate:** Fast
Habit: Solitary

Status: In Stock
Available Range: 1–20gal

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The genus
MACROZAMIA

From the Greek "*macros*", large, and "*azaniae*", cone, in reference to the large female "*sporophylls*" produced by some of the species.

Family: ***Zamiaceae***
Subfamily: ***Encephalartoideae***
Tribe: ***Encephalarteae***
Subtribe: ***Macrozamiinae***

The subtribe includes one other genus, ***Lepidozamia***.

A varied genus of about twenty-five species of cycads widely distributed in Australia. The species range from feathery dwarf plants with subterranean stems to majestic trunk-forming trees resembling Date Palms. All the species are solitary and remain unbranched throughout life. Where the slender leaflets join the leaf stem (*rachis*) lies a pale colored callous area, which may be a decorative feature on the large, feathery leaves. A number of species regularly experience seasonal droughts and fires in habitat and several grow in areas subject to hard frosts and snow.

Culture: ***Macrozamia*** species accept sun, but are often more luxuriant when grown under shaded conditions. Established plants tolerate drought. Good drainage is essential.

Macrozamia communis

Common Name: New South Wales Macrozamia
Cold Tolerance: 15ºF (-9ºC) **USDA Zones:** 8b-11

Typical Height: 3.5'–6.5' **Growth Rate:** Slow to Moderate
Habit: Solitary

Status: In Stock
Available Range: 3–100gal.

Macrozamia johnsonii

Common Name: Johnson's Macrozamia
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 3.5'–5' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 15–45gal.

Macrozamia miquelii

Common Name: Zamia Bush
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 1'–3' **Growth Rate:** Slow
Habit: Solitary

Status: In Stock
Available Range: 3–100gal.

Macrozamia moorei

Common Name: Carnarvon Gorge Macrozamia
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 10'–13' **Growth Rate:** Moderate
Habit: Solitary

Status: In Stock
Available Range: 3–100gal.

Blue and Green forms available

Other Species of Macrozamia:
M. *fawcettii,* ***M.*** *riedlei,* ***M.*** *spiralis* (in stock)

M. *dyeri,* ***M.*** *fraseri,* ***M.*** *lomandroides,* ***M.*** *lucida* (occasionally available)

M. *stenomera* (on request)

M. *douglasii,* ***M.*** *elegans,* ***M.*** *glaucophylla ,* ***M.*** *macdonnellii* (looking for)

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The genus
MICROCYCAS

From the Greek "*micro*", for small, and "*cycas*", from the Greek "*kykas*" meaning palm, referring to the palm like growth habit.

Family: ***Zamiaceae***
Subfamily: ***Zamioideae***
Tribe: ***Zamieae***
Subtribe: ***Microcycadinae***

A small genus of only one species, ***Microcycas*** *calocoma*, the epithet derived from "*calos*", Greek for beautiful, and "*come*", hair, meaning beautiful crown of leaves. ***Microcycas*** are native to Cuba, from the western part of the Island in the Pinar del Rio province to the mountains northwest of San Diego de los Banos, over into the region near San Andrace. Typically they have solitary stems, but are sometimes branched due to damage caused by storms. The older specimens have a soft, cork-like bark that provides a degree of insulation from natural forest fires.

Culture: ***Microcycas*** grow in low, grassy to bushy hillsides and ravines, usually under trees and near streambeds. They prefer relatively dry areas with acid clay soil and elevations of 100 ft. - 300 ft.

Microcycas calocoma

Common Name: Palma Corcho - Spanish, referring to the soft, cork-like bark.
Cold Tolerance: 26°F (-3°C) **USDA Zones:** 9b-11

Typical Height: 2'- 33' **Growth Rate:** Moderate
Habit: Solitary

Status: Occasionally Available
Available Range:1–10gal.

The genus
STANGERIA

For William Stanger, a surveyor general of Natal, South Africa.

Suborder: ***Zamiineae***
Family: ***Stangeriaceae***
Subfamily: ***Stangerioideae***

Stangeria is the only cycad genus other than ***Microcycas*** with only a single species, "*eriopus*", derived from "*erio*", Greek for woolly, and "*pes*", foot, no doubt referring to the tomentum covering newly emergent leaves. ***Stangeria*** grow wild in KwaZulu-Natal in South Africa, inhabiting a narrow strip between a half mile of the coast to 50 miles inland. The mature leaves are pinnate and fern-like, 1' - 6' long. The heavy harvesting of these plants for their medicinal value is a threat such that ***Stangeria*** *eriopus* is listed in Appendix I of **CITES**.

Culture: ***Stangeria*** prefer sandy soils rich in humus and somewhat acidic. The soil should be kept moist, yet not wet. They can accept sun, yet afternoon shade produces better results. The tubers should always be planted just below the soil line.

Stangeria eriopus

Common Name: Bobbejaankes - Baboon Food
Cold Tolerance: 28°F (-2°C) **USDA Zones:** 9-11

Typical Height: 1'-5' **Growth Rate:** Slow to Moderate
Habit: Clustering

Status: Occasionally Available
Available Range: 1–10gal.

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The genus
ZAMIA

From the Greek "*azaniae*", cone, in reference to the "*sporophylls*" (cones) produced by members of the genus.

Family: *Zamiaceae*
Subfamily: *Zamioideae*
Tribe: *Zamieae*
Subtribe: *Zamiinae*

The subtribe includes one other genus, ***Chigua***

A large genus of about sixty species of cycads widely distributed in tropical America, with one species, ***Zamia*** *floridana*, ranging through Florida and into coastal Georgia in the southeastern U.S. The species range from dwarf plants with subterranean stems to shrubby forms with emergent stems, and at least one species, ***Zamia*** *pseudoparasitica*, grows as an epiphyte in the branches of trees. All the species of ***Zamia*** produce leafy crowns of foliage that make them choice garden specimens and most varieties branch heavily in age to produce handsome clumps. A number of species regularly experience seasonal droughts in habitat and several grow in areas subject to frosts.

Culture: *Zamia* species accept sun, but are often more luxuriant when grown under shaded conditions. Established plants tolerate drought. Good drainage is essential.

Zamia integrifolia

Common Name: Florida Coontie, Zamia floridana
Cold Tolerance: 18ºF (-8ºC)
USDA Zones: 8b-11

Typical Height: 1.5'–2.5'
Growth Rate: Slow
Habit: Clustering

Available Range: 1–15gal.
Status: In Stock

Other Varieties of Z. integrifolia:
"Palatka Giant", "Umbrosa"

Zamia maritima

Common Name: Cardboard Palm, Zamia furfuracea
Cold Tolerance: 28ºF (-3ºC) **USDA Zones:** 10-11

Typical Height: 2'–4' **Growth Rate:** Moderate to Fast
Habit: Clustering

Status: In Stock
Available Range: 15–45gal.

Zamia pumila

Common Name: Dominican Zamia
Cold Tolerance: 15ºF (-9ºC) **USDA Zones:** 8b-11

Typical Height: 4' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 3–25gal.

Zamia vasquesii

Common Name: Dwarf Mexican Zamia
Cold Tolerance: 18ºF (-8ºC) **USDA Zones:** 9-11

Typical Height: 2.5'–5.5' **Growth Rate:** Slow
Habit: Clustering

Status: In Stock
Available Range: 7–15gal.

Other Species of Zamia:

Z. *amblyphyllidia* (both red & green emergent fronds), ***Z.*** *fischeri*, ***Z.*** *integrifolia*, ***Z.*** *loddigesii* (all in stock)

Z. *paucijuga*, ***Z.*** *spartea*, ***Z.*** *standleyi* (occasionally available)

Z. *inermis*, ***Z.*** *lucayana*, ***Z.*** *splendens* (looking for)

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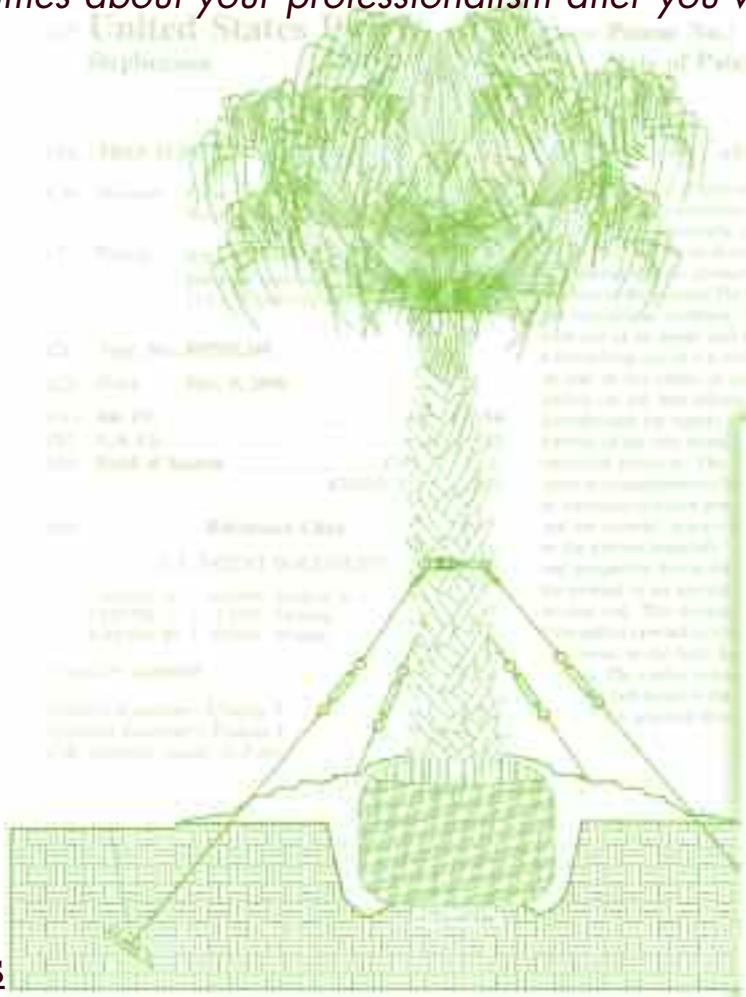
PATENTED OASIS PALM TREE ANCHORING KITS

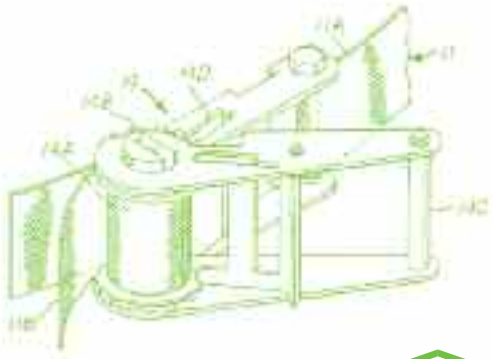
These are superior quality multi-part systems, which include everything for the secure anchoring of large palm trees. The belt, which goes around the tree, is high-strength webbing with a quick-lock cam or ratchet buckle. Attached to the belt are three or four loops, through which stainless steel cables with turnbuckles and Duckbill anchors are attached. (various styles & sizes available)

Speaks volumes about your professionalism after you've gone.



Drive Bars

Specially made for installing the Duckbill anchors of the Oasis Kits three feet below the ground. One drive bar will drive hundreds of anchoring kits.



Patent # US6389743B1

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OASIS PALM CART

Amazingly only 31” wide with a 4000 lb. capacity. This is the answer to getting large trees through narrow openings. Large turf tires, 360^{0} turning radius and rotating pedestal base enable user to re-direct tree as the cart moves forward or backward. Two custom ratchet straps secure the tree to the pedestal base. This cart maneuvers with less effort than a standard tree dolly. It truly pays for itself in reduced labor costs during installations.

For Sale or Rent

Another Patent Pending by G. Stephenson

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PRODUCTS

DECORATIVE PRODUCTS

Bamboo Fencing

Bamboo Gates

Bamboo Poles

Bamboo Flooring

Tiki Heads

Palapas

Thatching

Palm Wood

SAFETY LIFT ROUND SLINGS

These slings are made of tight density nylon rope making a continuous loop, perfect for lifting palms and trees of all sizes. Will not damage trunks or bark when used properly. Various sizes capable of loading from 4,200 lbs. to 17,000 lbs.

H_2O PRESSURE PROBES

Attach one to the end of a water hose and eliminate troublesome air pockets around newly transplanted material.

ROUND RINGS

For securing the heads easily when tying up for transplanting.

FREEZE BLANKETS

Custom made freeze blankets secured around trunks provide low cost protection during freezing weather while transplanted trees establish themselves.

FELCO SWISS-MADE TOOLS

The finest pruning tools in the world. Lightweight, rugged, ergonomically designed for maximum ease and comfort, our Felco tools will last a lifetime.

Features:

- Precise and perfect cutting heads
- Exceptional hardness and durability
- Consistently smooth action
- Shock absorbers to reduce wrist fatigue
- Wire cutting notch

Also:

BOOKS
BAMBOO BARRIERS
PALM IDENTIFYING POSTERS
WIRE CUTTERS
NUT DRIVERS
SET-UP CHAINS
CABLE PULLERS
PRUNER SHEATHS
SAW SHARPENING FILES

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PRODUCTS

ANTI-STRESS 2000

Anti-Stress 2000 is a blend of non-toxic water soluble polymers that can reduce the damage of weather and drought related stress. This biodegradable foliar spray provides a unique semi-permeable membrane when applied to the top and bottom of the leaf surface. While protecting mechanically, Anti-Stress can alleviate the effects of excessive heat, drought, drying winds, climatic changes, transplant shock and frost or freeze. During its 45 to 60 day active cycle, this elastic coating dramatically reduces transpiration and does not interfere with normal stomatic activities or photo-synthesis, while remaining soft and flexible on the leaf and fruit surface to ensure unrestricted growth.

APEX PALM SUPREME FERTILIZER

A professional, high-quality, 3 to 4 month controlled release fertilizer specifically formulated for palms.

50 lb. Bag

NITRO-PHOS PALM PLUS

Palm specific fertilizer complete with minerals, macro and micro-nutrients necessary for healthy palms.

8 lb. Tub **50 lb. Bag**

MYCOR PALM SAVER

A slow-release granular palm fertilizer and soil conditioner with beneficial mycorrhizal fungi and bacteria for more rapid root growth and development. Essential.

8 lb. Tub **22 lb. Box** **5 Gal. Bucket**

SUPERTHRIVE

Powerful concentrate of 50 vitamins and hormones for all types of plant material. Best used for transplanted and stressed plants. Superthrive adds bio-organic complexes of carbon, hydrogen, and oxygen to plants instantly, before they themselves can start producing them.

Pints **Quarts** **Gallons**

PRO-TEKT 0-0-3

Supplies higher levels of potassium and silicon to build strong cell walls in plants. This is the source of liquid K+ that we recommend to increase cold hardiness in harsh winters.

Pints **Quarts** **Gallons**

NOTES:

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OTHER SERVICES

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TOP-QUALITY COLD HARDY PLANTS, AMENDMENTS & CONSULTING .....

If you are looking for quality, HCI can supply it! Whatever the plant, wherever it's grown, HCI can source it!

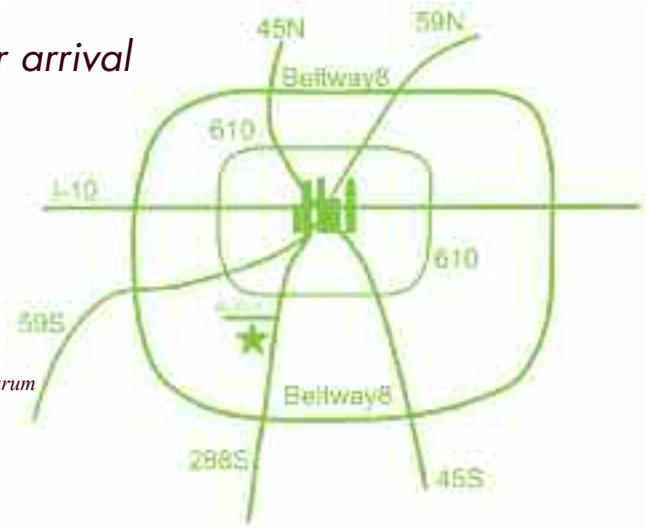
But that's not all .....

Our expert horticultural understanding and recommendations are what our long standing clients rely upon. Our staff has the knowledge to provide plant-specific and site-specific insight, the kind that's hard to find. If you need to solve a plant problem, Horticultural Consultants, Inc. can travel to the job site and determine what's to be done. If you have a challenging project, count on us to consult and help coordinate the various crews and equipment needed. We can provide educational and instructional materials for your crews in English or Spanish. We want you to be successful in your palm, bamboo and cycad plantings, so you'll be comfortable using them.

Please come tour our nursery and see for yourself.....
over 130 varieties of **cold-hardy** palms, bamboo, and cycads.

We welcome your arrival

1. ***Phoenix*** *dactylifera* 2. ***Wodyetia*** *bifurcata* 3. ***X Butigrus*** *nabonnandii* 4. ***Sabal*** *causiarum*
5. ***Washingtonia*** *filifera* 6. ***Ravenea*** *xerophila* 7. ***Trachycarpus*** *fortunei*



TERMS & POLICIES:

ALL SALES ARE C.O.D. Our terms are net cash, no discounts.

DEPOSITS FOR PLANT MATERIALS:

Horticultural Consultants, Inc. allows a 50% nonrefundable deposit to secure merchandise on hand for up to 30 days, at the end of which time the balance is due. If said merchandise remains in the care of Horticultural Consultants, Inc. for more than 30 days a fair and reasonable monthly fee of 10% of the sale value will be charged to provide necessary maintenance and care.

SPECIAL ORDERS:

Orders for material not on hand require a down payment of 70% with the balance due upon arrival at our nursery or specified location.

PRICING, AVAILABILITY, AND LABELING:

Prices are subject to change without notice due to availability. All material is labeled and represented according to our best knowledge.

SHIPPING:

We are not a shipping company, thus, we are not liable for any delays due to circumstances beyond our control. We are happy to help arrange shipping for your material's safe arrival.

Horticultural Consultants, Inc. is conveniently located 1/2 mile south of Loop 610 on 288 South @ Bellfort

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GRANT STEPHENSON

GRANT STEPHENSON'S fascination with the plant world began at the age of three while working with his grandmother in her garden. After studying landscape design and architecture at Louisiana State University, Grant entered the horticulture industry, selling for (at the time) one of the nation's largest ornamental plant brokerage firms, Jenco, in Austin, Texas. While in Austin, Grant came to be relied on as a spokesperson in the horticulture industry, fielding gardening questions on popular local radio programs, providing advice to community groups and businesses concerned with environmentally sound solutions to landscape problems, and helping provide greenery to decorate the sets of PBS's Austin City Limits TV series.

Building on his experience working with architects, developers, property managers, and contractors, Grant joined the Spencer Company, then ventured into helping create a growing nursery at Houston's Treesearch Farms, where he served as plant buyer and helped initiate a re-wholesaling business. Grant offered his expertise and unique services to many of Texas' best nurseries and brokerages and became recognized locally and nationally as an unparalleled expert on hardy palms, cycads, and bamboos.

In 1991 Grant's knowledge, passion, and hard work flowered into Horticultural Consultants, Inc., now the preferred supplier of palms and other tropical plants to the nation's most demanding landscape architects, commercial nurseries, real estate developers, contractors, botanical gardens, and theme parks.

Since beginning his company, Grant has consulted for Mercer Arboretum, Moody Gardens, Pappas Restaurants, the Cities of Houston, Freeport, Nassau Bay, and Seabrook; The Texas Department of Transportation, South Shore Harbor, New Territory, the Finger Companies, the Woodlands Corporation, Galveston County, Walt Disney World, Tennessee Zoo, Phoenix Zoo, San Antonio Zoo, Houston Zoo, New Orleans Aquarium, Corpus Christi Aquarium, the San Antonio River Walk, San Antonio Botanical Garden, Dixieland Theme Parks, and Six Flags Astroworld, to name a few.

Grant has traveled to collect and acquire palms in Texas, Florida, California, Arizona, Mexico, Hawaii, and the Bahamas, and maintains active relationships with botanists, growers, and plant enthusiasts across the country and overseas.

Grant belongs to the following organizations and is a regular participant in several horticultural events:

Organizations:
American Cycad Society
The International Palm Society
The American Bamboo Society
Palm Society of South Texas
Association of Zoological Horticulture
Texas Nursery & Landscape Association
Cycad Society of South Africa
Palm Beach Palm & Cycad Society
Palm Society of Southern California
American Association of Botanical Gardens & Arboreta
Hardy Palm International

Tradeshows:
ASLA National Conference
ASLA Texas Conference
ASLA Florida Conference
ASLA Louisiana Conference
The Nursery / Landscape Expo
Western States Palm Conference

Thanks go to Scott Ogden, Cheryl Stephenson, Sir William Gray, and Jason Remmert for their efforts in putting this together. I am grateful for all those who have pioneered the study of these species. Thank you for your interest in these wonderful plants.

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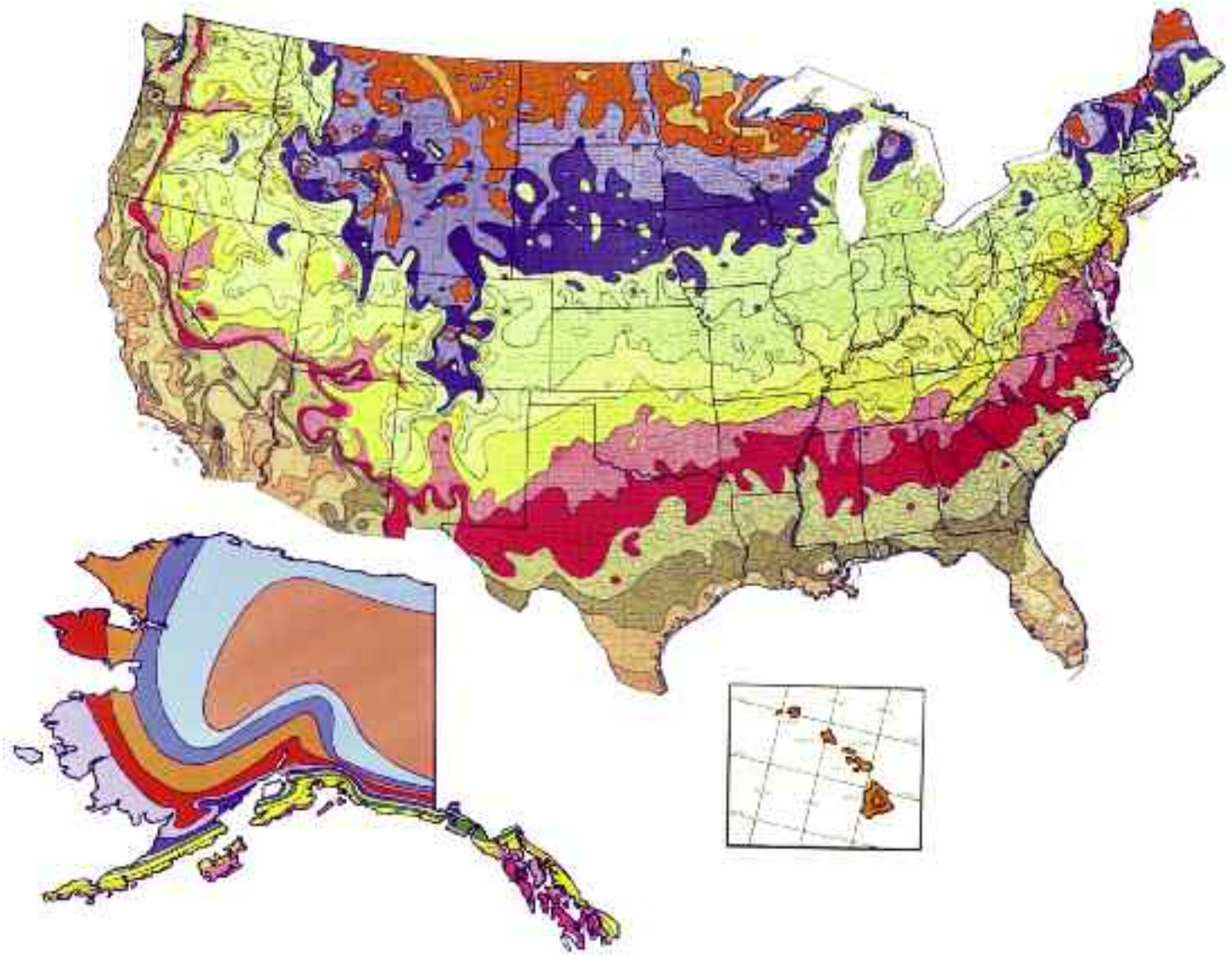

AVERAGE ANNUAL MINIMUM TEMPERATURE

Temperature (°C)	ZONE	Temperature (°F)
-45.6 and Below	1	Below -50
-42.8 to -45.5	2a	-45 to -50
-40.0 to -42.7	2b	-40 to -45
-37.3 to -40.0	3a	-35 to -40
-34.5 to -37.2	3b	-30 to -35
-31.7 to -34.4	4a	-25 to -30
-28.9 to -31.6	4b	-20 to -25
-26.2 to -28.8	5a	-15 to -20
-23.4 to -26.1	5b	-10 to -15
-20.6 to -23.3	6a	-5 to -10
-17.8 to -20.5	6b	-0 to -5
-15.0 to -17.7	7a	5 to 0
-12.3 to -15.0	7b	10 to 5
-9.5 to -12.2	8a	15 to 10
-6.7 to -9.4	8b	20 to 15
-3.9 to -6.6	9a	25 to 20
-1.2 to -3.8	9b	30 to 25
1.6 to -1.1	10a	35 to 30
4.4 to 1.7	10b	40 to 35
4.5 to Above	11	40 and Above

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