

A WORD OR TWO ABOUT GARDENING

Looking to Accentuate the Tropical? Ornamental Bananas, Bird-of-Paradise and Traveler's Tree Provide Striking Foliage and Showy Flowers.

A previous article that appeared in this column introduced the topic of accent plants suitable for Miami-Dade landscapes (see archived articles at <http://miami-dade.ifas.ufl.edu/publications.htm>). Attention was drawn to the fact that although accent plants can serve several purposes, in Miami-Dade landscapes they are especially important in accentuating the areas tropical ambience. The previous article considered several aroids, mostly aloccasias and colacasias, plants esteemed for the bold foliage they contribute to shaded areas of the yard. The present article is the first of two devoted to a familiar group of herbaceous perennials all belonging to the order Zingiberales. Within this order are landscape items suitable for full sun to shade and featuring both bold foliage and often spectacular flowers. This month's column is concerned with plants suited to full sun/light shade: Musaceae (the banana family) and Strelitziaceae (bird of paradise family). A second article will describe two groups of plants adapted to more shady conditions, heliconias and gingers.

For optimum growth and appearance all of the plants to be discussed below prefer a moist but free draining, organically enriched soil. Drought tolerance is limited, especially for ornamental bananas, bird of paradise (*Strelitzia reginae*) being most tolerant. With a few exceptions ornamental bananas are best grown in full sun, while travelers palm and bird of paradise can take some light shade. All, especially bananas, should be grown in sites protected from direct wind, which can cause excessive shredding and even desiccation of the foliage. Apply regular applications of a complete slow release fertilizer, preferably one high in potash (potassium, K) such as an 8/2/12 (N/P/K) complete slow release palm special. This is particularly important for ornamental bananas, which are heavy feeders. Some ornamental bananas also require acid soils and will develop trace element deficiency symptoms on local Miami limestone.

While edible bananas are a familiar site in Miami-Dade landscapes, ornamental types are not as common despite being a source of fast growing tropical foliage and long lasting showy floral displays – specifically, large colorful bracts that subtend the actual flowers. **Bananas consist** of a short corm like underground stem which gives rise to a pseudostem (i.e. 'false' stems) made up of many rolled tightly appressed leaf bases. The leaf blade is simple, paddle shaped and often huge. The stem bearing the inflorescence grows up through the center of the pseudostem. In most ornamental bananas the flowers are usually borne on an upright spike as opposed to the pendant spike found in edible bananas.

To maintain an attractive appearance cut down each pseudo stem to the base as soon as the inflorescence/fruit loses visual appeal (flowering occurs once after which the pseudo stem dies). Lateral buds on the true corm-like stem give rise to new pseudostems - growth is first horizontal to form a short rhizome after which suckers appear close to the parent stem. For edible bananas it is important to limit the

number of pseudostems growing at any one time in order to ensure quality fruit. With ornamental bananas this is not as important and new pseudostems need only be removed if the clump appears too congested.

Ornamental bananas are usually smaller than edible types and positively miniscule compared to *Musa ingens* a banana from New Guinea with 15' leaves atop an erect 45' pseudostem. This is much larger than a papaya and it is reputed to be the largest known herb (from a distance could be mistaken for a palm). Despite being the subject of much interest, don't look for container specimens of this banana any time soon. Attempts to germinate the few seeds available have so far met with very limited success.

There are several species of banana of ornamental appeal that are readily available – in some instances it may be necessary to go out of area or order from a nursery by mail order. Compared to edible bananas the provenance of most ornamental specimens currently available is uncertain. For instance *Musa ornata*, well known to horticulturalists, is described as growing to 6-9' with waxy green leaves and pale purple to lavender flower bracts however actual specimens in the wild are very difficult to find, with one author suggesting that *M. ornata* is itself a natural hybrid of two other species. Several named cultivars that supposedly involve *M. ornata* are available but there is uncertainty as to their derivation. For instance the cultivar sometimes offered as *M. ornata* '**Bronze Banana**' (bronzey orange to brick red yellow-tipped bracts, upright leaves having orangey red mid-rib) is now known to be a quite different species, *Musa laterita*. This species has a far more open growth habit than *M. ornata* or indeed most other bananas, with new stems produced on long rhizomes at a distance from the mother plant rather than forming a distinct clump. Other putative *M. ornata* cultivars include '**Macro**' (similar to species type with enlarged inflorescence) '**Red Ruby**' (deep blush pink), '**Milky Way**' (white bracts), '**Royal Burgundy**' (waxy purplish pink bracts) as well as '**Royal Purple**', '**Royal Red**' and '**Royal Pink**'.

Two bananas appreciated for their showy red inflorescences are the red **torch banana** (*Musa uranoscopos* syn. *M. coccinea*) and the smaller **orange flame banana** (*Musa beccarii*). The striking upright inflorescence of *M. uranoscopos*, with bright red, green to yellow tipped bracts, is at first glance more reminiscent of the wild canna (*Canna indica*) than a banana and is popular as a long lasting cut flower. This banana can take some light shade and has a decided preference for acid soils. In Miami-Dade severe nutritional problems have been recorded when grown on local limestone. As an alternative *M. uranoscopos*, like other ornamental bananas, can be grown in a container using an organically rich, free draining soil when it will make an attractive patio plant. Much admired is a banana from Hawaii sold as "**Musa Okanaiwa**" which also grows to about 8' and has an inflorescence similar to the red torch banana with deep red, yellow tipped bracts. There appears to be little information as to the derivation of this selection. The orange flame banana grows to no more than 6' with slender bright green leaves, and an upright torch like inflorescence having bright orangey red bracts. This species is finding increasing use as a cut flower and is readily amenable to container culture.

The pink velvet banana has an eye-catching inflorescence, the large flower bracts that are first produced being pale pink, with subsequent bracts further down the inflorescence becoming distinctly redder. The small bright pink fruit possess a velvety surface (velutinous) and are (rare for a banana) schizocarpic: when mature the pericarp (skin) splits from the apex, curling down toward the base of the fruit. This reveals a sweet, but bland, white edible pulp, which is better left for the birds as it is full of seeds hard as buckshot. The pink velvet banana, growing to about 5' is suitable for a small yard and can accept some light shade.

Another small ornamental banana that appreciates even more shade and takes up comparatively little space is the **Indian dwarf banana (*Musa mannii*)**, again a species of uncertain provenance. It has 3' pseudostems and a pendant inflorescence with orange red to purplish bracts. As well as being an excellent choice for a partly shaded corner of the landscape, it makes an ideal container specimen for a Florida room. **A hybrid (*Musa x assamica*)** involving *M. mannii* and *M. velutina* with 18" pseudostems (total height including leaves under 3') is claimed to be the smallest of the dwarf ornamental bananas. Maturing in under a year it has dark green leaves and deep pink flower bracts and offers much potential as an indoor pot plant, but commercial availability is unknown at this time.

If you are looking for a banana with bold colorful foliage then ***Musa acuminata* ssp. *sumatrana* (bloodleaf, bloodgood, blood banana)** is without parallel. Once more names can be confusing as this banana will be found as *Musa sumatrana*, *Musa zebrina* or just 'Zebrina', as well as 'Rubra', 'Roja' and 'Sumatrana'. It may well be that the use of one or more of these latter three names is valid if these specimens are indeed distinct cultivars, but at present evidence is unavailable. Seemingly pedantic considerations aside, this is an outstanding landscape plant derived from a popular edible banana (*M. acuminata*, dwarf Cavendish) but with inferior fruit. The leaves however make a conspicuous statement in any landscape, the upper surface mid green with large purplish to burgundy red blotchy stripes, the underside dark red to purple. Growing rapidly to 8' (half this in a container), this is one plant that will immediately attract attention to any otherwise dull corner of the landscape.

Two ornamental bananas with striking yellow bracts are fast gaining in popularity. The first is sold as ***Musa* sp. 'Thai Gold'** with a lack of information as to its taxonomic status (*Musa siamensis* has been used but is not recognized by TROPICOS or GRIN). Growing in full sun or light shade to about 6', it produces an inflorescence with pale gold bracts. A good choice to brighten any landscape, or to compliment red flowering herbaceous plants such as cannas or heliconias.

Growing to no more than 3-5' the **Chinese yellow banana (*Musella lasiocarpa*)** caused something of a sensation when it first became available. Attractive grey green foliage, but primarily valued for the especially large cone shaped inflorescence. This is at least 12" long and before fully opening has been likened to a lotus blossom (the plant is sometimes referred to as golden lotus banana). Once the inflorescence opens, flowers appear subtended by several large overlapping ovate to lanceolate, buttery yellow bracts. The entire inflorescence lasts for several months. After flowering and fruit set the pseudostem dies and new suckers appear. These

grow directly from the base of the old pseudostem (*Musella* unlike unlike *Musa* are not rhizomatous) to produce a far tighter clump. With container grown specimens the whole plant can be removed and the suckers carefully separated and potted. Once rare and expensive, Chinese yellow banana is now propagated using tissue culture techniques (overcomes difficulties in using seed) and is now widely available. Apart from the stunning inflorescence the plant's hardiness adds to its appeal, making it an increasingly popular item for gardeners as far north as plant hardiness zone 7. Previously included with other species of *Musa* the Chinese yellow banana was separated as a separate genus, *Musella*.

Another distinct genus of bananas (*Ensete*) is found in Africa and Asia, with the **Abyssinian red banana (*Ensete ventricosum*)** being the sole species so far of widespread horticultural interest. This is a large plant that grows rapidly producing a sturdy trunk-like pseudostem reaching up to 30', topped with a cluster of enormous (to 18') grayish green, paddle shaped leaves having reddish tinged mid-ribs. The inflorescence is large but not especially showy. For landscape purposes *E. ventricosum* is primarily of interest for its foliage, in particular the cultivar '**Maurelii**' rather than the species type. The foliage and stems of 'Maurelii' are tinged wine red, older leaves fading to a more orangey red. Seed grown plants can be highly variable in appearance, however specimens grown by tissue culture exhibit little variation though they are more expensive. A second cultivar that appears similar if not identical to '**Montebeliardii**' (believed lost to cultivation) is now offered by a British grower and is worth seeking out if it becomes available in the US. This selection has a narrower more upright appearance (not as broad a canopy of leaves) the foliage underside with a reddish purple tinge. Choose a site protected from direct wind exposure and plant in a free draining organically enriched soil and fertilize as for bananas.

Ensete ventricosum is monocarpic: after 4-5 years, following flowering and fruit set, the pseudo stem dies, but unlike other bananas the plant does not sucker spontaneously and is therefore finished. It is possible to induce *E. ventricosum* to produce suckers by removing the pseudostem just above ground level then scooping out the tissue below (apical meristem). The exposed tissue (central axial meristem) if allowed to callus over will give rise to new shoots which can be removed and potted. To be successful it is essential that the pseudostem is removed before the inflorescence develops. Plants propagated in this way may develop suckers since some meristematic tissue is invariably removed along with the detached shoot. This method of propagation necessitates sacrificing a fully grown plant and is based on one used for hundreds of years in Ethiopia where the underground stem and the pseudo stem are important sources of starch.

There are two strelitzias which bear the name **bird of paradise** but it is ***Strelitzia reginae*** that has become one of the most widely grown of flowering ornamentals for warm climate landscapes. Familiar to most Miami-Dade gardeners, it is far more extensively planted in Southern California - it is the official City Flower of Los Angeles - where it flowers more freely. Slower growing than the banana plants discussed above, *S. reginae* is a virtually stemless, clump forming plant with numerous stiff, grayish green 10-30" oblong to lance shaped leaves on a long (up to

3') petiole. The inflorescence is instantly recognizable comprising a 5" canoe-like spathe (green tinged reddish purple, held at right angles to the peduncle), from which flowers appear each having three bright orange sepals and three deep blue petals. A cultivar with rich yellow sepals, '**Mandela's Gold**' was released in South Africa (where *S. reginae* is native). It is not widely offered in the US though seeds are available.

Strelitzia reginae prefers somewhat acid, organically enriched soil so in Miami-Dade it is a worthwhile incorporating some organic matter into local sandy or rock soils. Allow space for each clump to spread to a width of about 5'. Flowering is best if grown in full sun, however some shade improves the appearance of the foliage – a site with high shade in the afternoon would be the ideal compromise. For instance underneath a group of tall palms, or a tree with an open canopy (e.g., wild tamarind, *Lysiloma latisillqua*). Mulch to help conserve soil moisture but do not over water or plant where there is a risk of flooding. Under such conditions there is high risk of root rot. Maintenance chores, apart from watering, include applying a slow release palm fertilizer every month and removing spent flowers and dead foliage. Apart from leaf spotting diseases (more likely where foliage remains wet), potential insect pests include mealybugs and scale insects.

For homeowners **bird of paradise can be propagated** by carefully digging up and splitting clumps in late spring. It will take up to 2 years for divisions to establish and commence flowering. If you hand pollinate the flowers then wait 4-6 months you should find short, rather fat, leathery seed pods. Sow the large black seeds in a coarse organic potting mix, first removing the orange tuft of hairs. Use fresh seeds, once the seed coat hardens they become more difficult to germinate and must be first soaked. Within 2 months seeds should germinate and once 2-3 leaves develop the seedlings should be re-potted. Keep the growing plants in shade to prevent foliage burn and after 6 months gradually move into more sun before planting in the landscape. After 2-3 years plants should start to flower.

Once considered a variety of *S. reginae*, but now a distinct species, ***Strelitzia juncea*** is an eye-catching plant notable for the thin upright reed like foliage (leaf blade not discernable). The flowers are similar, if smaller, to *S. reginae*. In the landscape *S. juncea* appears to be more tolerant of full sun and drought, and must be grown on rapidly draining soil.

The "giant" bird of paradise (***Strelitzia nicolai***), sometimes called the **white bird of paradise** and known as the Natal wild banana in its native South Africa, is indeed far larger than *S. reginae*. It is not at all as common in local landscapes with traveler's tree (see below) which it resembles in size being preferred. In general appearance it resembles a banana plant, growing up to 30' (20' more common locally) with multiple stems and can expand to produce a clump covering an area up to 12' wide. Stems are stout and woody with conspicuous leaf scars, individual leaves consisting of a 6' petiole and an oblong grayish green blade (up to 6'). The leaves become shredded in the wind giving them a feathery appearance – in exposed situations they appear excessively tattered. The inflorescence is much larger than that of *S. reginae* with white sepals but it tends to remain hidden amongst the foliage. It is important to limit the number of new stems that develop otherwise *S.*

nicolai will form one huge untidy clump of vegetation. It is also best planted away from sidewalks and underground utilities in view of the vigorous root system.

The **traveler's tree** (*Ravenala madagascariensis*) is a far more common site in Miami-Dade landscapes than *S. nicolai*, its dramatic appearance making it popular as a foundation plant for large buildings. Often mistaken for a palm, traveler's tree is slow growing to nearly 40', but 25' is more usual locally. It consists of a single sturdy fibrous stem the lower two thirds smooth with ring scars the apical third hidden by overlapping leaf bases. Leaves are arranged in a single plane to form a huge fan (alternate distichous). Each leaf is up to 12', divided equally into a long petiole and a dull green paddle shaped blade with a heavy mid-rib. Flower bracts emerge sequentially between leaf bases. Rain water collects in these two structures and is the source of the plants common name, though it is unclear how many thirsty travelers over the years have actually partaken of this source of refreshment to quench their thirst! Out of scale for a small yard, traveler's tree is a good choice for a large yard to border a swimming pool or as a specimen/accent plant in a corner of the landscape where its distinctive outline can be seen against an open sky.

Although suckering far less than *S. nicolai*, traveler's tree will produce new stems and these are normally removed so as not to detract from the visual impression of the mother plant. After removal suckers can be used for propagation of new plants, they can be difficult to root and seeds give more reliable results. Traveler's tree should be planted in full sun, though it can take light shade for part of the day. Provide a free draining moist, but never wet, organically enriched soil and apply a slow release palm special fertilizer every three months. Apart from leaf spotting diseases, more prevalent where foliage remains wet, there are few other pests.

The plants discussed above provide plenty to choose from for those wishing to add some lush tropical landscaping to a bare sunny yard. Next month, especially for those with a more shady garden prepare to enter the spectacular world of gingers and heliconias.

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