

## New Plants for the South®

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### INTRODUCTION

As a smaller nursery in the playing field of many giants, we have found our niche in the marketplace by offering new or newer selections that are not readily available from larger nurseries. It is quite a challenge to find new cultivars, which will tolerate both the heat and humidity of the U.S.A. Deep South. Probably more of a challenge than finding a plant that will tolerate the ambient air temperature is finding one that will tolerate our warm, damp, late-summer soil temperatures. More often than not, if a selection fails, it is due to root problems, usually a fungus, rather than any problem above the soil line. Often, the geographical origin of a plant will have much to do with its adaptability. It has been our experience that species that are native to Chile will almost inevitably succumb, whereas plants native to New Zealand, with a similar climate, will often perform admirably. Hence, proper trialing is eminently important. Of course, being able to mass propagate a new accession is also an important issue that one must address.

The sources of our new selections are domestic as well as international. We have developed a number of our new introductions on site — from seed or propagating sports. So these are usually from a plant that has already been established as an adaptable plant to our conditions. We determine if our selections are stable and able to be easily propagated. Avid hobbyist gardeners share a number of selections with us as well. But we will also take advantage of other smaller nurseries similar to ours that are avidly searching for new introductions. Foreign acquisitions are another one of our sources. Many new selections have resulted from travels to Japan and Europe — and are a result of cultivating friendships and mutual sharing of our own selections with these sources.

***Gordonia axillaris* (syn. *Polyspora axillaris*), fried egg plant.** A popular winter-flowering large shrub to small tree of 3 to 4.6 m (10 to 15 ft) from Australia. Its name comes from its habit of dropping its 10-cm (4 inch) white flowers intact to the ground, face up with its prominent brilliant yellow stamens displayed in full view against its ivory white petals. This is considered an ornamental trait “down under” but may be frowned upon by some fastidious gardeners. Its evergreen leaves closely resemble our native *G. lasianthus* with a length of 10 to 15 cm (4 to 6 inches), glossy and dark green. It is a late fall bloomer with 3 to 8 flower buds clustered around the terminal buds of a branch. Hence when in flower, it is extremely showy over several months from October to December. It propagates rather well from semihardwood cuttings in the fall. This plant is purported to be sensitive to low temperature, but we have found it to be quite hardy in mid Zone 8 down to -10 °C (14 °F). Zones 8–10.

***Michelia* (syn. *Magnolia*) *maudiae*, smiling forest michelia.** Since *Michelia* has been placed into the *Magnolia* genus, it will probably take some time before one will become comfortable with calling *Michelia* “*Magnolia*.” This species gets quite large in its native China, reaching heights of 30.5 m (100 ft), but we would prob-

ably consider it a medium-size tree, even though it will grow 1 m (3.3 ft) or more per year in its early development. The foliage is evergreen with a bluish-green color and silvery undersides. It is extremely fragrant, with white flowers up to 14 cm (5.5 inch) in diameter. The biggest problem is that it is a late-winter bloomer, which makes it quite vulnerable to late freezes. But, even with one good flowering year in three, this selection is worth planting. A mature plant will set flower buds at almost every node, leading to a memorable horticultural experience of a tree in full flower in February or March.

Propagation can be a problem, since it is difficult to root by cuttings with only a 10% to 20% success rate. It grafts well, using *M. kobus* as a rootstock. In the past we have been importing seedlings directly from China, but now that more mature plants are developing in the U.S.A. Southeast, good seed set occurs here. If seed are collected in the fall and cleaned and planted immediately, germination will begin in days. We place community seed pots in a cold frame for the winter with enough heat to keep them just above freezing. Germination will continue all winter with 76 to 102 cm (30 to 40 inches) of growth experienced through the following growing season, when plants are then separated to individual 3- to 7-gal containers. Flower buds will be set on plants as young as 2 to 3 years from seed. One must diligently protect planted seed from mice, as they relish the seed of this species. We tightly staple fiberglass screening over each pot to prevent damage. Its range will probably be limited to Zones 7b to 9 and possibly 10.

***Edgeworthia chrysantha* 'Winter Gold', paper-bark bush.** This is one of those exceptional winter flowering shrubs for the South that not only gives a great floral display, but also has a wonderful fragrance. It has been said that every U.S.A. southern garden needs an *Edgeworthia*. I could not agree more. In the same family with *Daphne*, *Thymelaeaceae*, this species resembles the daphne inflorescence with its prominent, terminal flower buds that form in the fall and remain prominent throughout the winter with their covering of silvery indumentum. Since it is deciduous, the silky flower buds are an additional winter attraction, opening here starting in late January and continuing well into March. Its 5 to 14 cm (2 to 2.5 inch) bright golden-yellow flower heads consist of 70 to 90 or more individual, small flowers. It tends to be a multi-branched shrub of 1.8 to 2.4 m (6 to 8 ft) wide with an equal height, but can be trained into a single trunk. It performs best in filtered sun or morning sun and afternoon shade. There is another species of this genus, *E. papyrifera*, that most taxonomist do not recognize, whereas most plantsmen do. This species is inferior in all respects to *E. chrysantha*, being less cold hardy, with leaves half the size of *E. chrysantha*, with smaller heads of only 25 to 35 flowers, far less fragrance, and more susceptibility to root rot. I can see some potential for *E. chrysantha* as a cool greenhouse plant in more northern areas, because of its long flowering period, fragrance, and lush foliage. After evaluating numerous selections of this species, we have given the name 'Winter Gold' to the best clone that we have found.

Softwood cuttings are our preferred method of propagation, with a 7 : 1 Dip 'N Grow<sup>®</sup> auxin solution, but one must take cuttings before summer temperatures get too high or when fall temperatures drop, since the large fleshy leaves tend to wilt readily and additional mist causes fungal problems and dropping of leaves. Basal sprouts will root in less than 2 weeks, but it is difficult to get an adequate number of these for wholesale production. Tip cuttings will take 8 to 10 weeks to root, but

one must constantly remove yellowing leaves from the mist bed. We have rooted hardwood cuttings taken in January, but our rooting percentages are not nearly as great. The Japanese have made numerous selections of *Edgeworthia* with orange and red flowers and variegated forms, but most of these are *E. papyrifera* and have not proven nearly as durable. Grafting onto *E. chrysantha* would probably increase vigor.

As an additional point of interest, we were visited by a group from the Beijing Botanical Garden in 2004, and they were rather impressed with the work that we were doing with this species. We were informed by them that the paper manufactured from the bark of this species is reserved for the most important governmental documents and that orchards of *Edgeworthia* are planted in China to harvest the bark to manufacture paper, which is reputed to be the finest paper in the world. Hence, the common name of paper bark bush. Zones 7(6b)–9.

***Osmanthus fragrans* 'Fudingzhu', fudingzhu fragrant tea olive.** This cultivar also masquerades under the name, 'Nanjing's Beauty', but 'Fudingzhu' is the correct cultivar name. Here is another one of those winter-flowering gems that flowers from September to April, with an intoxicating fragrance that can carry for hundreds of feet. However, the old saying, "One can smell it before one can see it," is no longer true. This cultivar flowers with great profusion, and it is much showier than the species, flowering in fascicles of 10 to 15 flowers each. Fudingzhu fragrant tea olive produces multiple buds per node in a stacked-like fashion, where one may observe as many as five or more buds stacked upon one another. This is the reason for its ability to repeat flowering throughout the winter. One can only appreciate this selection when seeing it in flower. It makes an impressive evergreen shrub of 2.4 to 3.7 m (8 to 12 ft).

In our location, propagation is from cuttings collected in May, while stems are still green and at the consistency to snap if bent. We wound and treat with a 5 : 1 Dip 'N Grow solution under mist. Some cuttings will root almost immediately, but others may take much longer. Weaning them off out from under mist will usually stimulate cuttings, which take longer to root. Zones 7b–9.

***Osmanthus fragrans* f. *aurantiacus*, orange flowering tea olive.** Of all of the selections of this species, this is probably the most spectacular in flower. Although it only flowers in the fall, it will literally stop traffic with its floral display. It has bright tangerine-orange flowers with exceptional fragrance that will literally encircle the branches of the current season's growth in October. Some years, we will get two flushes of flowers of about 10 days each spaced about 3 weeks apart. The one problem with this selection is that it will not usually flower until it reaches 1.2 to 1.5 m (4 to 5 ft) in height, usually as a 7-gal container or larger. However, 'Fudingzhu' will flower at a height of 7.6 cm (3 inches). Hence, to become a garden center commodity, one must plant a specimen on site, so that when it covers itself with bright orange flowers, the smaller nonflowering plants will literally walk out the door in customer's shopping carts.

Louisiana Nursery lists several cultivars, but having grown most of them, I see very little difference between them. In its native China, specimens may be seen as medium-sized trees to 9.1 m (30 ft) and more. The genus *Osmanthus* is practically free of insects and diseases. But they are not the easiest plants to propagate. To propagate, one can duplicate the procedure for 'Fudingzhu'. This selection is more cold hardy than the species, probably hardy through Zone 7, maybe even 6b.

***Illicium anisatum* 'Purple Haze', purple haze Japanese anise.** This selection was acquired from Mr. Yamaguchi of Japan. The new growth has a deep shining burgundy color for 2 to 3 weeks, then as the growth starts to harden off, it gradually fades to green. Each succeeding flush throughout the growing season has this same deep burgundy color. The original plant from which cuttings were taken has a conical upright form with an approximate height of 8 ft. Firm wood, wounded and treated with a 7 : 1 dilution of Dip 'N Grow, rooted approximately 80%. It performs best in filtered sun or morning sun and afternoon shade. There are several selections of this species with deep burgundy foliage that are found throughout Japan. They are all grafted and perform quite poorly, even in Japan. Since these are seedling selections, eventually one may be found that has enough vigor to be introduced. The flowers on 'Purple Haze' are the cream-white of the species, whereas the selections that retain the burgundy foliage all season will be anywhere from pink to apricot. Zones 7–9.

***Hydrangea macrophylla* 'Hatsushimo'.** This Japanese cultivar is typical of the Japanese practice of putting more emphasis on foliage than on flowering characteristics. This is true with many *Camellia* cultivars as well. This selection actually has more white than green in its variegated leaves, which resemble green splashes on a white background. It also has an amazingly good-sized lacecap flower head with white sterile florets that surround the light blue true flowers. It propagates easily from softwood cuttings, but due to its intense variegation, it is not as vigorous. Zones 7–10.

***Dichroa febrifuga* 'Yamaguchi Select', dichroa or evergreen hydrangea.** This is an unusual smallish shrub of only 76 cm (30 inches) or so, which is in the hydrangea family, *Hydrangeaceae*. It produces half-inch true flowers in clusters of 7.7 to 10 cm (3 to 4 inches) that will be pink in the absence of aluminum and deep blue with aluminum. Its greatest claim to fame is its electric blue berries, which are produced in the fall. I don't think there are any more brilliant blue fruit produced in the plant kingdom. This species must be grown in complete shade. Cuttings will root readily at almost any month of the year, but during the winter, bottom heat is helpful. Even when grown under deciduous trees, leaves will burn when exposed to winter sun; otherwise, it will remain mostly evergreen. Its vulnerability to cold will limit its distribution to Zones 7b to 10.

***Lespedeza liukuensis* 'Little Volcano', little volcano lespedeza.** On my first trip to Japan in 2000, I saw this species in full flower at the home of Mr. Akira Shibamichi of Shibamichi Hoten, who I consider a Japanese national treasure as one of the world's most outstanding plantsmen. Little volcano lespedeza displays an explosion of flowers with a color similar to *L. thunbergi* 'Gibraltar' on a cascading habit of 1.5 to 1.8 m (5 to 6 ft). Trying to be on my best behavior, I did not ask for a cutting. Upon visiting Mr. Shibamichi the following year, he had dug this plant and placed it in a large nursery container, and it was suffering from the move. Again, I restrained myself from petitioning for a cutting. Upon our visit in 2002, the plant was still in the container and was in a severe state of decline. I could not restrain myself any longer and asked Mr. Shibamichi if I could get a cutting. He literally ran over to his tool shed and retrieved a tool so that I could remove a basal branch. From this unrooted shoot, I was able to force two small sprouts from which I was able to get two cuttings. Mr. Shibamichi was somewhat dubious as to whether it

would survive in our colder climes, but my experience has been that even in single digits, the branches are killed back only a few inches from their tips. So, cold hardiness does not seem to be much of an issue. There are over 80 species and subspecies of *Lespedeza* listed in Flora of Japan, but this species is not listed unless it is identified under another name.

I shared this selection with Tony Avent of Plant Delights Nursery, and he e-mailed me that I should name it because of its superior performance. He suggested 'Little Volcano' because of its "eruption" of flowers in the fall. For us here in Zone 8, it begins to flower when 'Gibraltar' is finished in late October and flowers heavily throughout November. It appears that it will grow to around 1.5 to 1.8 m (5 to 6 ft) in height with an equal spread. It roots easily from softwood cuttings throughout most of the growing season. We overwinter them outside without protection and have had no losses. This species is native to the Ryuku Islands of Japan, which is equivalent to Zone 10, probably hardy in Zones 6–9 at least.

***Trachelospermum asiaticum* cultivars, Asiatic jasmine.** This genus has been a staple in many landscapes in the U.S.A. Deep South over the years, but the species "*asiaticum*" is more cold-hardy than "*jasminoides*." Selections of this species have been used mostly as groundcovers in shade to sun situations. Since it is a vine, it has much potential as a climber, especially with many new foliage forms and colors as well as when pink flowers are brought into the mix.

- **'Ougon-Nishiki'** is one of the more spectacular foliage forms of this genus. New growth is a brilliant brick-red that, as it matures, turns to bright yellow with irregular green margins. Probably the greatest potential for this plant is as a container subject, whether in a hanging basket or trained on a teepee or trellis. It has done well outside here into the mid-teens (°F) in a somewhat protected location. Its brilliant colors are at their best in strongly filtered sun light. It does well in the shade, but the colors are not nearly as intense. Flowers have yet to be observed on this cultivar.
- **'Pink Showers'** is the first pink-flowering form that I have seen in this genus. The star-like flowers are a good medium pink with incredible fragrance. Its first flush of blooms in May is stunning, followed through the growing season with continual flushes of fragrant flowers. This plant was introduced to Japan by Mr. Akira Shibamichi of Shibamichi Hoten, who is also responsible for the introduction of *Spiraea thunbergii* 'Fugino Pink' and *Ilex crenata* 'Sky Pencil'. This is definitely a new "breakthrough" in flower color for the genus and is sure to become a hit in U.S.A. Southern gardening circles. It would also be a great addition for greenhouses in Northern states. Its best attribute is its pink, fragrant flowers, which can be optimally displayed on a trellis, fence, or wall.

***Podocarpus lawrencei* 'Purple King', purple king mountain plum pine.** This Australian native does quite well in our Deep South heat and humidity. An ancient conifer, it more closely resembles yew or *Taxus*. It has fine 2-cm (0.8-inch) dark green needles resembling a hemlock with a resinous pine-like aroma. It makes a small- to medium-size rounded, spreading shrub. New growth is a light cream color, which sharply contrasts with its older dark green needles. It makes a fine

small shrub for the landscape, preferring light shade or morning sun and afternoon shade in the Southeast. It is an equally good subject for bonsai or containers. The species is extremely long lived with records of trees 160 years old in Australia and undocumented claims of up to 470 years. This cultivar takes on a bluish-purple cast after frost. Zones 6–9.

***Ardisia crispa*, hilo holly.** This is an awesome species with long, lance-shaped, dark, glossy-green leaves of 10 to 20 cm (4 to 8 inches). It flowers with a 3- to 12-flowered inflorescence on a pedicel of 8 to 13 cm (3 to 5 inches) with pale pink to white petals. Its greatest claim to fame is its vivid red berries of 0.6 to 1.0 cm (0.3 to 0.4 inch). There are cultivars, which also have cream-white to golden-yellow berries and others with crinkled and/or variegated leaves. This species is displayed extensively in Japan in the “koten engei” style where classical plants are trained and displayed in this Japanese form. It needs to be in a shade or part shade environment with adequate moisture. This species has not been put on noxious weed lists, as has its cousin *Ardisia crenata*. It has proven hardy well into Zone 7.

***Disporopsis* ‘Shina-no-tsuki’, shina-no-tsuki evergreen solomon’s seal.** This appears to be the only variegated evergreen Solomon’s seal, even though there are many variegated deciduous forms. This is an extremely nice plant with glossy golden-chartreuse leaves with a green margin, which makes a many-stemmed clump. For nurserymen, it is a dream to grow, because it roots easily from stem cuttings, with single-node cuttings rooting well. Since it roots at the node, a single-leaf cutting must be stuck with the node just below the soil line. In Japan it occupies a place of reverence in homes as a pot plant displayed in the “koten engei” style. It does well into Zone 7 (Zones 7–10) where it is quite persistent.

***Alpinia intermedia* ‘Sun Spice’, sun spice ginger.** This is an outstanding bright golden-yellow variegated ginger that was found in Japan and that only gets 40.6 to 45.7 cm (16 to 18 inches) in height. It is often confused with *A. zerumbet* ‘Variegata’ but differs in being somewhat more compact and more cold hardy. I have had it in the ground in our Zone 8 setting and it has come back dependably with temperatures in the mid teens. It actually does better in shade, and if put in too much sun, the leaves will burn. The Japanese even use it as a pot plant, and it makes a very handsome subject for container cultivation as a stand-alone or in combination with other plants. After growing this cultivar for 4 years, we have not had any flowers. It propagates quite readily from division, but we are also tissue culturing it. Zones 8–10.

***Hedychium densiflorum* ‘Assam Orange’, Assam orange ginger.** There are probably few plants that have been more misidentified than this species. Even in a web search, most references to this species are completely misnamed. Many cultivars that are attributed to this genus are actually *H. coccineum* or maybe a hybrid of *H. coccineum*. The inflorescence is a tight arrangement of small brilliant orange flowers that closely adhere to the main stalk, to a point that it resembles a brilliant “red hot poker” that has just been removed from the fire, much more so than a *Kniphofia*, which masquerades under this common name. The flowers are followed by brilliant red berries, which line the stem. This selection was found by the superintendent of the botanical garden of Katmandu, Nepal, and named for one of his children. It has extreme cold hardiness, possibly even to Zone 6b.

***Salvia leucantha* ‘Delilah’, Delilah Mexican sage.** As with so many plant

selections that we find in Japan, this one did not have a cultivar name. So we have named it 'Delilah', meaning "temptress" in Hebrew. I have seen several variegated forms of Mexican sage on the market, but they pale in significance beside this one. Well defined white margins with vivid bluish-purple flower spikes in the fall truly makes this selection a "temptress" in the garden. As with most other salvias, it roots in a matter of a few days. It needs full sun and good drainage for best performance in the garden. Since *S. leucantha* is not the most cold hardy of sages, it was feared that this variegated form would be even less so. However, it has overwintered here in Zone 8 in the ground with a -10 °C (14 °F) low temperature this past winter. Zones 8–10.

### SUMMARY

In summary, to compete with the "big box" nurseries, smaller nurseries like us must use our advantage of being able to explore for new plant material for our respective markets. This seems to be the only way that we can survive in the global economy, where big is usually presumed to be better.

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## Growing Quality Trees for Southeastern Landscapes®

### Michael Marshall

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### INTRODUCTION

Florida tree nurseries have experienced significant changes in production demands during the last decade. Factors leading to these changes include publication of the 2nd edition of the *Florida Grades and Standards for Nursery Plants*, increased demand, and increased buyer sophistication. The publication of the 2nd edition of the *Florida Grades and Standards for Nursery Plants* has had a tremendous effect on the level of quality that buyers are requesting and expecting. Simultaneously, there has been a large increase in demand due to seemingly endless development. This demand, while helping the industry in some ways, has also led to a large number of nursery expansions, and new large nurseries are entering the market. Increased buyer sophistication has meant that many architects and developers are more aware and much more specific about species, cultivars, and the production method they prefer when specifying trees. All of these changes have forced nurseries to change their business strategies in order to compete successfully.

### DEFINING QUALITY FIELD-GROWN TREES

Field growing of landscape trees was once the only method used to transplant large caliper trees into landscapes. Today, container and field production are both viable alternatives. Due to the increased popularity of container production of large trees during the last 20 years, field-grown tree nurseries have had to compete by marketing their product more effectively. Roots Plus Growers Association of Florida (RPG) was formed by a group of like-minded growers in the early 1990s to promote the importance of buying quality, hardened-off, field-grown trees. The association's mission is threefold: (1) to guarantee the consumer is buying a hardened-off, field-