**Hamelia patens var. patens:** The Native Firebush

**Family:** Rubiaceae

**Common Names:** Firebush, Scarlet Bush, Hummingbird Bush, Butterfly Bush, Firecracker Bush, Bálsamo, Coloradillo

**Synonyms:** *H. coccinea, H. erecta*

**Origin:** South Florida, Bahamas, Caribbean, Central Mexico to Brazil, Argentina and Paraguay

**U.S.D.A. Zone:** 10A-11 (33°F)

**Plant Type:** Shrub or small tree

**Leaf Type:** Simple, entire, elliptic to ovate

**Growth Rate:** Fast

**Typical Dimensions:** 10-15’ x 8-15’

**Leaf Type:** Simple

**Leaf Persistence:** Evergreen

**Flowering Months:** Intermittently year-round

**Light Requirements:** High, medium

**Salt Tolerance:** Moderate

**Drought Tolerance:** High

**Wind Tolerance:** Low

**Soil Requirements:** Wide

**Nutritional Requirements:** Medium

**Major Potential Pests:** Aphids

**Propagation:** Seeds, cuttings, air-layers

**Environmental Concerns:** None

**Human Hazards:** None

**Uses:** Flowering shrub, small flowering tree, specimen, accent, hedge, border plant, butterfly and hummingbird attractant

**Distribution**

Firebush, *Hamelia patens*, is widely distributed throughout tropical and subtropical America. Its range extends from Mexico through Central America to as far south as Paraguay and Argentina. Firebush is also native to the Bahamas and the Caribbean. It occurs naturally in the extreme south of Florida. However, it is grown in gardens as far north as Gainesville. In those areas firebush is frequently and severely damaged by cold temperatures only to reemerge in the spring. In colder regions, it is grown as a flowering annual.
**Growth Habit**
Firebush is a fast-growing, semi-woody, evergreen shrub or small tree. In the tropics and sub-tropics it is ever-growing. In those locations, it produces no dormant terminal buds and flowers more or less throughout the year. Shoots on a single plant are non-synchronous so that various stages in flowering and fruiting can occur on the same plant.

If left unchecked, firebush can mature to over 18 feet tall and about as wide with 6 inches in trunk diameter if grown as a small tree. The inner wood lacks growth rings. The plant is usually multiple trunks, supported by a root system with abundant fine roots. The bark on the stem is a smooth light gray with persistent ring-nodes. Its densely-branched limbs may skirt the ground forming a billowing, globular crown, naturally rangy and opened. The shoots are herbaceous.

**Leaves**
Leaves can be quite varied. Most often they are light to dark green contingent on locations but sometimes purplish or red depending on cultivar. They are typically arranged in whorls of three leaves, sometimes four and rarely five. The leaf blades are entire, thin, elliptic to ovate and mostly short-pointed at both ends. They are usually 3 to 8 inches long and 1 to 4 inches wide with short petioles mostly not exceeding 1 1/2 inches long on the largest leaves. Leaves, often with wavy margins, are frequently turned upward from reddish-pink midveins. They are glabrous above having dense villous hairs above and beneath. They become purplish-red in cool weather. However, some cultivars have leaves that are naturally purplish in color year round.
**Flowers**
Flowers are in cymes; the terminal and axillary inflorescences are widely forked and showy. These inflorescences are 2 to 4 inches long and about the same width. Flower buds emerge yellow, becoming orange as they mature, and develop a more pronounced orange-red to scarlet corolla upon pollination. Each flower has about 12 hours in which to receive pollen for reproduction. Individual flowers are nearly sessile. They have a long, slim, fused corolla tube, 1 to 1 1/2 inches in length, with five short spreading lobes at the mouth. The stamens are within and inserted on the corolla tube forming a distinct nectar cavity. The nectar is accessible to long-tongued insects, such as butterflies, and to hummingbirds and halictid bees. The bees are considered the principal pollinator as they crawl down the floral tube to gain nectar. In South Florida profuse flowering occurs sporadically through much of the year but with less spontaneity in the coldest one or two months of winter.

**Fruits**
As they ripen, the oval to elliptic berries go through color changes from green, to red and finally to purple or blackish. Usually slightly more than 1/4 inches in length and diameter, they have a prominent apical ring which represent the scar of the floral parts. Mature berries are juicy, edible but not very palatable. Birds eat and disperse the small fruits and spread the seeds by elimination. Fruits not eaten by wildlife can persist on the plants for months eventually appearing like hanging black currants.
Uses and Wildlife
Firebush is very effective as a mounding color mass. It does well as a screen and large foundation plantings. Nurseries and gardeners can train firebush to become a standard or small tree. This is done by diligently removing new growth along what is to be the bare trunk.

Firebush is planted as a wildlife attractant primarily as a nectar source for a wide variety of butterflies. Hummingbirds, bees and wasps are also visitors. The leaves are food for the Pluto Sphinx and Nessus Sphinx. These hummingbird-like moths visit the blossom at dusk for nectar and to lay eggs on the leaves. The tendency of pollinators to visit a plant is often dependent on the area of growth. Fruit eating birds such as mockingbirds, catbirds and blue-headed vireos consume the small fruits.

Management
In South Florida recommended planting months are from February through November. Plants are more compact and flower more profusely when grown in full sun. Adaptable to a wide range of soils, firebush should be planted in well-drained soils to prevent root rot. High pH soils, and excess irrigation can produce yellow or chlorotic leaves. Leaf chlorosis can be remedied by fertilizer applications, organic amendments, and reducing irrigation. The plant responds quickly to fertilizer applications.

Firebush transplants well but its appearance may be unacceptable by some until it becomes established, generally in 6 to 12 months. Established plants are highly tolerant of droughts. However, with increased dehydration, they oftentimes drop their lower leaves but largely remain visually appealing. In the severest of droughts, plants may die without irrigation.

Lawn grasses should not be allowed to grow around its root zone. As with many fast growing shrubs, the stems of firebush have only modest tolerance to wind breakage. High wind can also cause browning of the leaves.

Due to its brittle wood that easily tears, firebush is generally not recommended as a sheared hedge. Pruning once or twice a year works well, as does clipping when necessary. New growth caused by pruning and clipping stimulate frequent and profuse flowering. However, excessive pruning can inhibit flowering by removing terminal growth where flowering occurs. Overgrown shrubs can be pruned back severely as the plant recovers quickly.

Cold Hardiness: In South and Central Florida, leaves often become red when temperatures drop into the 40’s F. Plants shed their leaves and may have dead stems when temperatures fall into the high 30’s and below. Cold damaged plants remain leafless until the return of sufficiently warm weather, usually in March or April. In South Florida wait until February before pruning after cold damage occurs. In North
Florida and colder locations, plants may be killed to the ground by cold weather but usually begin new growth in April or May making it a “root-hardy perennial.” There is no regrowth if the soil freezes. The species is not known for excessive leaf drop except when affected by drought or cold temperatures.

Insects
Aphids can be a problem in the spring coinciding with new leaf growth. This is particularly true after a severe pruning which induces abundant growth flush. Aphids feed by sucking sap from new leaves and shoots, causing shortening and distorting of the new growth. The problem wanes and eventually disappears as leaves and shoots harden and natural control develops. Caterpillars, lubber grasshoppers, scales, mealybugs and mites may cause problems confined to specific areas.
Propagation
Firebush can be propagated by fresh seeds, by cuttings or by air-layers. Although the species is a good producer of fruits and seeds in South Florida, seedlings are not common. Cuttings acquired from established plants will root easily when kept moist in the summer. Select vigorous young semi-woody branch tips, rather than old woody stems or the fresh green shoots for the cuttings. Plants grow rapidly and cuttings will flower when only a few months old at a height of about 18 inches.

Comparison of *H. patens* var. *patens* and *H. patens* var. *glabra*
The genus Hamelia consists of 16 species of shrubs and small trees native to lowland neotropical areas. *Hamelia patens* var. *patens* and *H. patens* var. *glabra* (Syn: *H. nodosa*) are highly variable varieties. The former has an extensive range that includes south Florida, Mexico southwards to Argentina. The latter, has a somewhat smaller range from Southern Mexico to western South America and Brazil.

*H. patens* var. *glabra* commonly known as the African firebush gained prominence in Florida during the 1990’s. It was initially and simultaneously sold as a Florida native circuitously reintroduced back to Florida from a botanical garden in Pretoria, South Africa. It was advertised as a dwarf firebush with superior color and form than its close relative *H. patens* var. *patens*. Nonetheless, DNA analyses has established that the African firebush sold in southern Florida actually originated in southern Mexico. The original southern Mexican variety was taken to Europe, southern Africa, and southeastern Asia probably in the middle to late 1800’s. It was reintroduced to the New World and marketed as a rediscovered Florida native. More of the *glabra* variant is found in landscapes than the *patens* including its cultivars.
Comparison of *H. patens* var. *patens*, Florida native and *H. patens* var. *glabra*, southern Mexican native.

<table>
<thead>
<tr>
<th>Trait and parts of plants</th>
<th><em>H. patens</em> var. <em>patens</em></th>
<th><em>H. patens</em> var. <em>glabra</em></th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth habit</td>
<td>Open, with longer internodes</td>
<td>Compact, dense</td>
</tr>
<tr>
<td>Leaves</td>
<td>Large, somewhat erect and supple, usually 3-8 inches long x 1-4 inches wide. Normally in whorls of 3 leaves. Pubescent, often densely so, often with reddish petioles.</td>
<td>Small, stiff, usually 2–5 inches long x 1 – 1 3/4 inches wide. Normally in whorls of 4 leaves. Glabrous, shiny, with green petioles.</td>
</tr>
<tr>
<td>Flowers</td>
<td>Inflorescences often with 60-90 flowers over time</td>
<td>Inflorescences often with 30-100 flowers over time</td>
</tr>
<tr>
<td>Corolla tube</td>
<td>Red to red-orange, often without basal constriction, pubescent.</td>
<td>Yellow to yellow-orange, often with narrow base constriction, glabrous.</td>
</tr>
</tbody>
</table>

Table modified from *The Identity of the African Firebush (Hamelia) in the Ornamental Nursery Trade.*

*Hamelia patens* var. *patens*
- Normally 3 leaves to a node
- Red-orange corolla

*Hamelia patens* var. *glabra*
- Normally 4 leaves to a node
- Yellow-orange corolla
Cultivars of *H. patens* var. *patens* and *H. patens* var. *glabra*

The two varieties, var. *patens* and var. *glabra*, apparently readily hybridize. This presents a challenge in differentiating cultivars within and between varieties. In recent years, cultivars of var. *patens* and var. *glabra* have showed up in the trade and are having greater sales success than the pure form of the Florida native, var. *patens*. Descriptions of the various cultivars are difficult to ascertain. Many of the cultivars being sold as cultivars of var. *patens* are most likely cultivars of var. *glabra*. However, while advertised as dwarf cultivars, many such plants often fail to remain short and as compact as promoted.

*H. patens* var. *glabra* ‘African’: This selection has a more compact growth than var. *patens*. Its leaves are also smaller, and purplish or red in color. It will grow to about 12 feet tall in a well formed mound.

*H. patens* var. *patens* ‘Calusa®: ‘Calusa® unique features are its bright red-orange bloom, and dense uniformed growth habit. The leaves have a much darker shade of red than the typical firebush.

*H. patens* var. *glabra* ‘Compacta’: ‘Compacta’ refers to the smaller leaves and flowers; it is more compact in growth habit than the standard var. *patens*. Leaves are medium green. It has bright red-orange flowers.

*H. patens* var. *glabra* ‘Firefly’: This is similar to ‘Compacta’ with slightly larger and narrower leaves. It will grow 5 to 10 feet tall and just as wide. It forms a dense hedge.

*H. patens* var. *glabra* ‘Macrantha’: ‘Macrantha’ has larger and more glabrous leaves than ’Compacta’ and ’Firefly.’ The leaves are often turned upwards and are wavy at the margins. It grows to about 12 feet tall and is well suited as a more formal hedge.
Cold damaged *H. patens* var. *glabra* ‘African’

*Hamelia patens* var. *patens* ‘Calusa’®

*Hamelia patens* var. *glabra* ‘Compacta’
*H. patens* var. *patens* as a hedge about 5 feet tall growing in full sun behind ‘Gold Mound’ Duranta. Coral Springs, Late October

*H. patens* var. *glabra* ‘Macrantha’ as a hedge about 6 feet tall growing in full sun. Fort Lauderdale, Late September
Hamelia patens var. patens being trained as a small tree. Note the suckers at the bottom of the trunk that must be removed in order for it to develop into a small tree.

This Hamelia patens var. patens is about 16 feet tall and just as wide. Mid-December

H. patens var. glabra 'African' having suffered significant stem dieback in February and as they appear in early May without having been pruned. Buckingham, Florida
Glossary
Cyme: A flat-topped determinate inflorescence, in which the terminal flower blooms first.
Cultivar: A form of plant originating under cultivation.
Elliptic: In the shape of an ellipse, or a narrow oval; broadest at the middle and narrower at the two equal ends.
Glabrous: Smooth; hairless
Globular: Globe-shaped; spherical
Midvein: The central vein.
Ovate: Egg-shaped in outline and attached at the broad end (applied to plane surfaces).
Variety: A category in the taxonomic hierarchy below the species and subspecies.
Villous: Bearing long, soft, shaggy, but unmated hairs.
Whorl: A ring-like arrangement of similar parts arising from a common point or node.

References

Culbert, Dan. 3/2007. Fired up Natives and Near Natives. UF/IFAS Okeechobee Extension Service, Okeechobee, Florida


Francis, J. Hamelia patens: Firebush. USDA Forest Service. San Juan, Puerto Rico


Florida Native Shrubs Fact Sheets

Beautyberry        Necklace Pod
Blue Porterweed    Saltbush
Buttonbush         Wax Myrtle
Cocoplum           Wild Coffee
Elderberry         Winged Sumac
Inkberry

All pictures taken by Stephen H. Brown except where indicated.

Subscribe at no cost to Brown’s Plant File by sending an email request to brownsh@ufl.edu. Please include your name and city or county of residence; state or country of residence if outside of Florida.