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Jaboticaba: A Unique Fruit Tree for Florida Home Gardeners[1]

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Introduction

Jaboticaba (*Plinia cauliflora* [DC.] Kausel)—a.k.a. *Plinia jaboticaba* (Vell.) Kausel, *Myrciaria jaboticaba* (Vell.) O. Berg, and *Myrciaria cauliflora* (Mart.) O. Berg—is a slow-growing fruit tree native to southeastern Brazil, whose range extends into parts of Paraguay, Bolivia, and Argentina. Belonging to the Myrtaceae family, jaboticaba is also commonly known as Brazilian grape tree, Jabuticabeira-açu, or jabuticaba. Jaboticaba trees can reach heights of up to 50 feet in Brazil if left to grow naturally. However, specimens in Florida typically range from 10 to 15 feet in height, and most growers maintain their trees at this level for ease of harvesting (Figure 1) (Balerdi et al. 2006). Jaboticaba is grown in tropical and subtropical regions worldwide. Although native to South America, this tree has been assessed by UF/IFAS to be non-invasive in our Florida ecosystems. Large-scale commercial production of this species is carried out in Brazil. Meanwhile, its US cultivation has been primarily limited to hobbyists in California, Florida, and Hawaii (Balerdi et al. 2006; Crane et al. 2025). Nevertheless, the popularity of growing jaboticaba in tropical regions is increasing due to its delicious fruit, medicinal benefits, and ornamental value.

The jaboticaba tree is unique due to its cauliflory, which produces flowers and subsequent fruit directly on the trunk and older branches (Balerdi et al. 2006; Nascimento et al. 2025). Its flowers are numerous, small, and white, with a sweet, fragrant scent often compared to roses or even fine cologne. The fruit are initially green and grape-like; they turn red, purple, or dark purple and are arranged in clusters, creating a striking visual effect. They are delicious, sweet, tart, and rich in antioxidants and bioactive compounds. Fallen fruit tend to stain, so it is recommended to avoid planting near driveways or other areas that would require regular cleaning. Additionally, the tree has smooth, peeling bark, reminiscent of some species in the Lythraceae family, such as *Lagerstroemia indica*, making it an attractive addition to gardens and landscapes. The slow-growing nature of jaboticaba trees facilitates fruit harvest and pruning. Their low maintenance requirements also allow them to thrive in the home landscape. Thus, the jaboticaba is positioned as a valuable addition to Florida gardens (Crane et al. 2025). This publication provides an overview of growing jaboticaba in Florida for home gardeners, as well as a brief review of the fruit's nutraceutical value.

Figure 1. Full form *Plinia cauliflora,* jaboticaba var. 'Sabara'.
Credit: Ajay Das, UF/IFAS

Related Species

Jaboticaba encompasses several species and cultivars within the Myrtaceae family. Related species include *Plinia cauliflora*, *Plinia aureana*, *Myrciaria glazioviana*, *Myrciaria trunciflora*, *Plinia phitrantha*, and other distantly related species, such as *Eugenia uniflora* (Surinam cherry), *Eugenia brasilliensis* (grumichama), and *Psidium guajava* (guava). Notable jaboticaba cultivars/varieties (and their corresponding species) include the following:

- Red Hybrid (*Plinia cauliflora x aureana*)
- White (*Plinia aureana*)
- Scarlet/Escarlate (*Plinia cauliflora*)
- Sabara *(Plinia jaboticaba*)
- Grimal (*Plinia spirito-santensis*)
- Blue *(Myrciaria vexator*)
- ESALQ (*Plinia phitrantha*)
- Yellow/Cabeluda (*Myrciaria glazioviana*)
- Cambuca (*Plinia edulis*)
- Otto Anderson Branco Vinho (*Plinia phitrantha*)
- Paulista (*Plinia cauliflora*)
- Restinga (*Plinia coronata*)
- Pingo de Mel (*Plinia jaboticaba*)

Each offers unique fruit characteristics, with differences in size, color, and flavor profiles. For example, 'Red Hybrid' produces large, plump, mild red fruit in three to five years from planting that possess sweet, juicy, and sub-acid flesh. Fruit of 'White' are pale green with a delightful, sweet flavor. 'Sabara' produces dark, succulent fruit that have a taste of a combination of grapes and lychees.

Planting

Jaboticaba thrives in USDA hardiness zones 9a–11, making Florida's climate ideal for cultivation. It prefers acidic soils (pH 5–6) with sandy or loamy textures and exhibits varying degrees of salt tolerance, depending on the cultivar. Trees can be planted in the calcareous, high-pH soils of Miami-Dade, but they will require soil acidification and minor nutrient applications. Propagation is primarily achieved through seed in Florida and grafting in Brazil; grafting and air-layering are also used in Florida for rare varieties and fruit precocity (Silva et al. 2019). Seeds are recalcitrant, losing viability at 10% moisture (within 10 days at room temperature), so they should be planted immediately after harvest. Cleaning seed mucilage enhances germination rates, which can take anywhere from weeks to two months (Danner, Citadin, Sasso, Ambrosio, et al. 2011). Plants propagated from seeds typically undergo an 8- to 10-year juvenile phase before they produce fruit, whereas grafts and air layers can fruit within a few years. Hybrid jaboticaba seeds, such as those from the 'Red Hybrid' or 'Scarlet' varieties (Figures 7 and 8), may fruit in three to five years; however, more research is necessary to confirm this. In Brazil, hybrid seedlings have been observed to fruit within two years. The primary drawback of seed propagation is that it produces offspring genetically distinct from the mother plants. However, this method is most widely used because it is simple and allows the resulting plants to be grafted later. Occasionally, jaboticaba seeds are polyembryonic and can produce a clone of the mother; however, some species are zygotic, resulting in genetic differences (Danner, Citadin, Sasso, Scariot, et al. 2011). When grafting is employed, top cleft grafting has the highest success rate among grafting methods, whereas rooting cuttings has a success rate of around 10% (Silva et al. 2019). Fresh grafts and seedlings should be placed in a shady environment until the graft heals, and new growth has sprouted and hardened off.

Jaboticaba can be grown as a single-trunk tree, as a multi-trunked shrub, or in long-term container culture. Like other fruit trees, jaboticaba trees benefit from mulch and organic amendments when grown in the ground. In-row spacing has not been extensively researched in Florida; however, since trees typically grow 10–15 feet high with a similar width, they should be spaced approximately 10 feet apart to allow for light penetration after reaching maturity. It is common to grow jaboticaba in containers for extended periods due to its slow growth rate. They can tolerate staying rootbound, and sometimes this can promote earlier flowering in some selections. While in containers, it is best to keep jaboticaba trees watered regularly because of their shallow feeder roots, which occupy the first few inches of the pot. The fine, hairlike roots allow jaboticaba to be kept in container culture almost indefinitely without detriment to the tree, provided it is consistently transferred to a larger pot and fertilized. Trees can be planted at any stage, from juvenile seedlings to mature trees, and those up to 15 feet tall can be transplanted from the ground to other sites with proper care (personal observation).

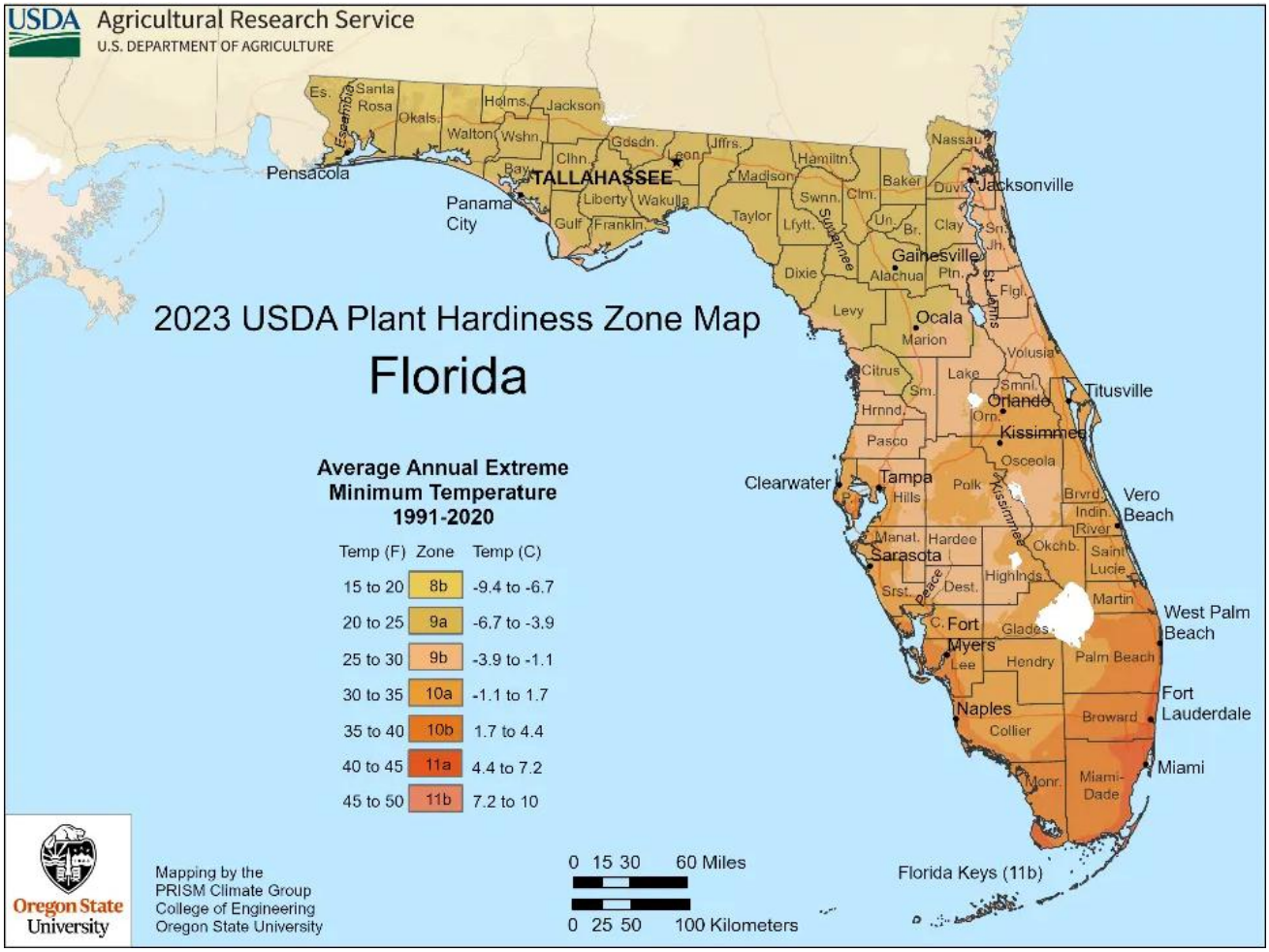

Figure 2. USDA hardiness zones in Florida. The hardiness zones for *Plinia cauliflora* are 9a–11. For alternative viewing, visit the interactive 2023 USDA Plant Hardiness Zone Map.
Credit: U.S. Department of Agriculture

Irrigation

Jaboticaba performs best in consistently moist soil and has poor tolerance to periods of drought (Balerdi et al. 2006), though older trees can withstand flooding for up to a month if allowed to dry afterward. Drip irrigation is ideal for maintaining consistent moisture, while bubblers, sprinklers, or micro-emitters can also be used, depending on the tree size. Water needs vary by season and tree maturity, with young plants requiring more frequent irrigation. Short periods of drought will cause the trees' leaves to brown, starting at the tips and gradually progressing to leaf senescence. If the tree still shows signs of healthy bark after drought stress, the odds of survival are higher.

Fertilization

Although there are no IFAS fertilizer recommendations, the following guidelines are offered. Since jaboticaba fertilizer rates are not commonly specified on labels, guidelines for mango or similar tropical fruits in the Myrtaceae family should be used. Organic fertilizers are preferred to avoid salt buildup, which can be detrimental to growth. A 4-3-4 slow-release N-P_2O_5-K_2O with 5% calcium, magnesium, and sulfur has shown promising results for juvenile plants and mature trees. When applying fertilizer, it is important to follow label recommendations and fertilize about three times per year, except during the rainy season from June through September, to help reduce excess nutrient leaching into groundwater. Jaboticaba is prone to nitrogen burn but tolerates higher levels of phosphorus and potassium. For interveinal chlorosis, chelated iron can be applied via foliar spray or soil drench as needed. In alkaline soils, biannual applications of elemental sulfur with gypsum or acidic compost (e.g., pine, peat, oak) can gradually lower the pH to more optimal levels.

Pruning

Immature jaboticaba trees require no pruning and will develop a dense, heavily branched structure. After the seedling stage, pruning root suckers will be necessary, depending on the cultivar/species, if a single trunk is desired. When trees reach the 3-gallon pot size or approximately 2–3 feet in height, some ornamental pruning of weak branches can be done to help shape the tree into its natural, rounded crown canopy. Once mature, selective pruning of crossing branches and branches that block light to the crown or bark enhances flowering and

fruiting. Light pruning of weak or dead limbs increases light penetration to mature branches where fruit is borne. Cutting large mature branches should be avoided to maintain production.

Climate

Jaboticaba grows well in Florida's mild fall-to-spring temperatures (65°F–85°F), preferring partial shade but tolerating full sun for larger crops. Plants do best under the canopy of larger shade trees, such as oaks, or in the greenhouse under 30%–60% shade cloth. Due to their shallow root systems, larger top-heavy trees tend to lean in the presence of strong winds (Figure 3). This can sometimes detract from their ornamental qualities, but usually does not affect fruit production. Tree stakes or windbreaks can be used to prevent leaning during strong wind events. Jaboticaba generally does not tolerate frost well and can be damaged if exposed to prolonged temperatures below −2°C (28.4°F). Frost sensitivity is highly species- or variety-dependent, so a warmer microclimate, such as against a south- or east-facing wall, is preferred. Seasons with cold but not freezing temperatures and dry conditions increase the number of flowers borne by jaboticabas, leading to a larger crop (Giacometti and Lleras 1994; Balerdi et al. 2006).

Figure 3. Jaboticaba var. 'Sabara' tree leaning after hurricane-force winds.
Credit: Ajay Das, UF/IFAS

Diseases and Pest Management

Birds, squirrels, and small mammals may damage fruit; mesh netting can deter or even prevent damage to a degree. Insect pests (aphids, scales, mealybugs, and whiteflies) are rare unless the tree is stressed or overfertilized with nitrogen. Leaves and fruit can occasionally develop rust spots during heavy rainfall or prolonged wet periods, causing cosmetic damage. Fruit remain edible with rust; however, for prevention, copper soap should be sprayed on small fruit just after development. 'Sabara' is tolerant to two common species of root-knot nematodes in Florida (*Meloidogyne incognita* and *M. javanica*); however, resistance or tolerance in other varieties is a topic that warrants further exploration (Marques et al. 2020). Healthy cultural practices minimize pest issues and disease incidence. Contact your local UF/IFAS Extension office for specific pest management advice.

Harvest and Use

Jaboticaba trees bear fruit multiple times a year, with peak harvests from February through May, and sometimes produce an off-season crop as well. The fruit have a short shelf life, lasting only one to two days at room temperature and up to three to four days refrigerated, depending on the variety. Vented clamshell containers, such as those used for blueberries, offer an excellent method for long-term storage, potentially enhancing market profitability. The fruit resemble muscadine grapes, characterized by thick, tannic skin and pleasant white, translucent interior flesh. Fruit development takes 30 to 45 days from pollination to maturity (Balerdi et al. 2006). The mature fruit (Figures 4, 5, and 6) are black (or, for selection-specific colors, red or yellow) and can be eaten fresh, juiced, or made into liquor and jams. Since the fruit have pleasant organoleptic properties and a short shelf life, processing jaboticaba fruit into other products, such as beverages and dehydrated or freeze-dried forms, offers solid economic returns from fruit yield if fresh fruit cannot be brought to market.

Figure 4. The bark, mature black fruit, and immature green fruit on a jaboticaba tree.
Credit: Ajay Das, UF/IFAS

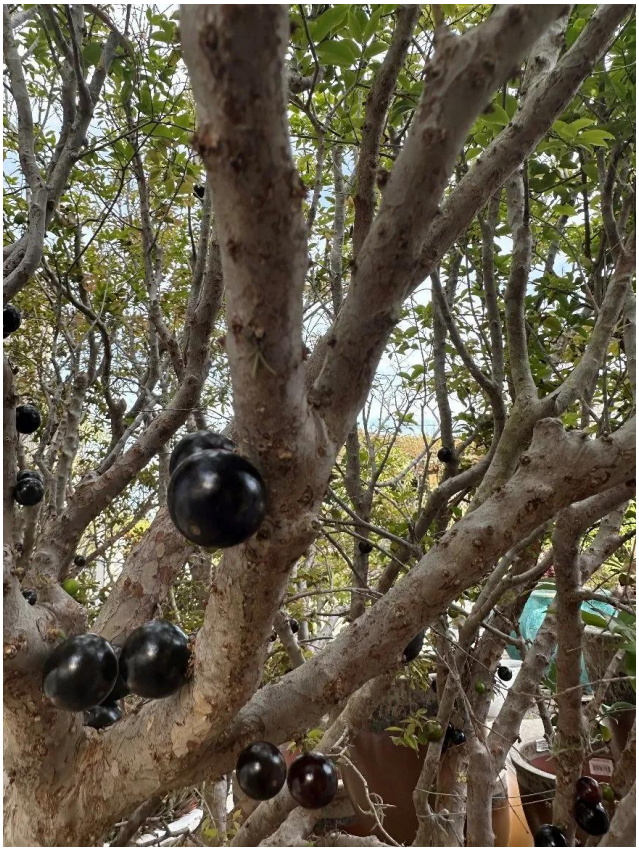

Figure 5. Close-up of mature fruit on jaboticaba var. 'Sabara'.
Credit: Ajay Das, UF/IFAS

Figure 6. Jaboticaba var. 'Sabara' summer crop in Homestead, Florida.
Credit: Ajay Das, UF/IFAS

Figure 7. Close-up of mature fruit on jaboticaba var. 'Red Hybrid' (*Plinia cauliflora x aureana*) in its 7-gallon pot.
Credit: Ajay Das, UF/IFAS

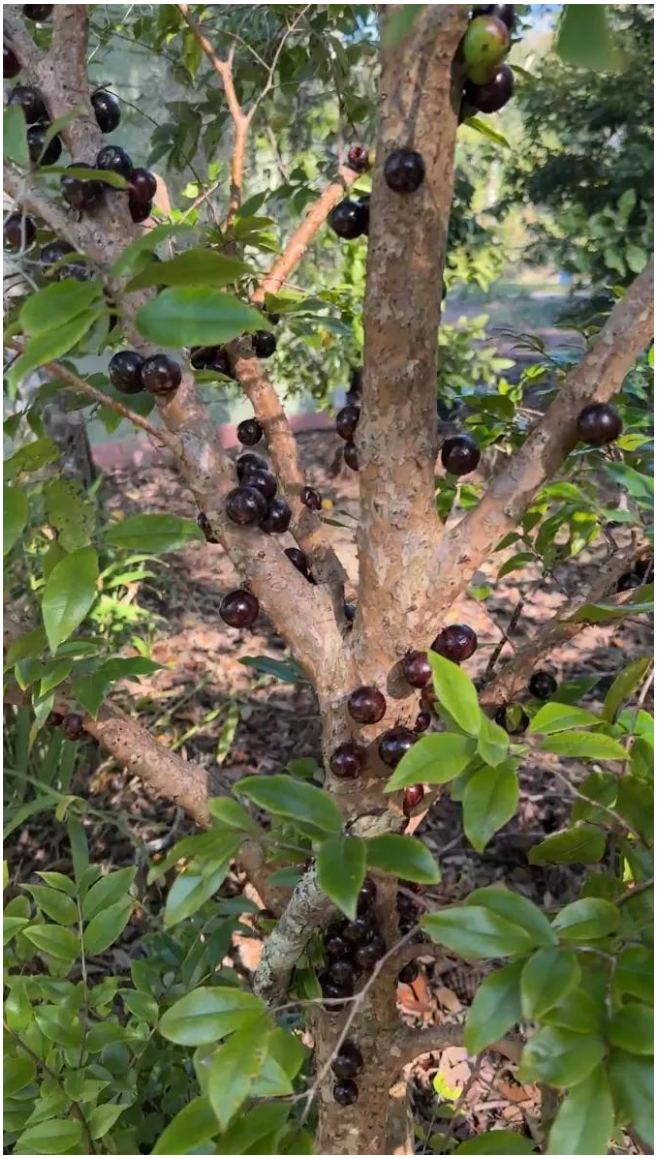

Figure 8. In-ground jaboticaba var. 'Red Hybrid' (*Plinia cauliflora x aureana*) bark and fruit. Credit: Ajay Das, UF/IFAS

Nutraceutical Uses

Jaboticaba fruit have high nutraceutical and pharmaceutical value, which varies by tree species and variety (Nascimento et al. 2025). A study on the nutritional and bioactive compounds of jaboticaba peel flour (JPF) was conducted in Brazil for the cultivar 'Honey Drop', also known as 'Pingo de Mel'. The JPF was shown to be a valuable source of nitrogen, carotenoids, flavonoids, and phenolic compounds. The flavonoids most present in the peel include anthocyanins, such as cyanidin 3-glucoside and delphinidin 3-glucoside, with a total anthocyanin concentration of 121.83 mg/100 g of JPF. Anthocyanins are widely recognized for their health benefits, including anti-inflammatory, anti-viral, and antioxidant properties that help fight free radicals and prevent cell damage from oxidative stress. 'Pingo de Mel' JPF is a rich source of polyphenols, specifically having catechin and ellagic acid in concentrations of 607.38 mg/100 g and 41.40 mg/100 g, respectively (Oliveira et al. 2025).

Catechins have been extensively studied in tea and have been shown to lower cholesterol, improve cognitive function, and boost metabolism. Ellagic acid shares health benefits with catechins, including antioxidant activity, antiproliferative effects, and angiotensin-converting enzyme inhibition, which may lower cholesterol. In high-fat-fed aging mice, administering the jaboticaba peel extract improved HDL cholesterol levels and prevented weight gain, dyslipidemia, and hyperglycemia. This could potentially aid in treatment for disorders such as diabetes, obesity, and aging (Lamas et al. 2018). Additionally, quercetin, rutin, and myricetin are also identified at lower concentrations and provide potent antioxidant activity. It is important to note that levels of nutritional compounds can vary significantly between different fruit on the same tree and, especially, between different cultivars of jaboticaba. This is due to the complex interrelationships among environmental growth conditions, stress, cultural care, secondary metabolite production, and cultivar differences. For example, peel thickness can vary significantly by cultivar, and thicker peels can contain more tannins than thinner ones (Oliveira et al. 2025).

Summary

Jaboticaba is a slow-growing, ornamental fruit tree suited to Florida's climate (USDA zones 9a–11). It thrives in acidic, consistently moist soils under partial shade. The species is valued not only for its fruit, which possess nutritional and medicinal benefits, but also for its ornamental features, including cauliflory and attractive flaking bark. These characteristics make jaboticaba a distinctive addition to home landscapes. Moreover, once established, the tree is relatively low maintenance. Its cultivation may also promote pollination activity and increase biodiversity in residential gardens, while providing fresh fruit with health benefits.

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