

GROWING *Licuala grandis* IN PALM BEACH COUNTY

Submitted by Charlie Beck

Licuala grandis is a tropical palm native to Vanuatu and the Solomon Islands. Both islands are located in the South Pacific. Vanuatu is found midway between New Caledonia and Fiji at a tropical latitude of 17°S. Another Vanuatu locational reference is 1400 miles East of Cairns, Australia. The Solomon Islands are closer to the equator at a tropical latitude of 7°S, 800 miles east of Papua New Guinea. Annual rainfall of native habitat is about twice that we have in Palm Beach County.

Geologically, both Islands have a limestone base covered with varying amounts of rich volcanic soil. *Licuala grandis* is most often found growing on moist, well-drained soil at low to moderate elevations. It is typically an understory palm found in primary and secondary forests, but can also survive in disturbed sites or open coastal forest with a thinner layer of soil.

L. grandis is a small, solitary palm with pleated, entire, palmate fronds. Occasionally, a specimen might display fronds with a few splits, but it is rare. One of its common names is Ruffled Fan Leaf Palm, due to its showy undulating leaf contour. Maximum height is about 12' and stems measure less than 2-1/2" in diameter. Expect mature fronds to measure 30" across and be displayed on armed, 2' long petioles. Leafbases are persistent but release from the lower portion of the stem with age.

L. grandis is a monoecious palm which can produce seed from a single plant. Pendulous infructescences hold copious amounts of bright red fruit. In its native range, fruit is eaten by birds and fruit bats.

We have fifteen specimens of *L. grandis* planted in our garden. They are planted in several locations with different elevations and soil types.

Our oldest specimen was part of a group of five which was planted 20 years ago. All were planted in heavy shade. Four specimens of that group did not survive the record cold winter seasons of 2009-2010. This grouping was planted in pure sugar sand in a low area in the garden which floods after repeated heavy rainfall. All of that group grew well prior to 2009. I added seven additional *L. grandis* to that area 5 years ago and they all are growing well in that situation.

Twelve years ago we planted three specimens close to our home. Shell rock was brought in to create a solid base for our home's foundation. This area is 3' higher than the rest of the garden, so it has excellent drainage at all times. The higher elevation also allows cold air to drain away, so cold spells are less likely to damage cold sensitive plants. All three *L. grandis* survived 2009-2010 with little lasting effect. These palms are planted under a deciduous tree which is leafless for several months over the winter. Winter sun is less direct, so these palms showed little effect to the direct sunlight. For some unknown reason the shade tree did not leaf out this year. This exposes these 3 palms to direct sunlight through May and into June. The older leaves sun burnt a bit but the new leaves seem to be adjusting to this exposure. The fronds are not as green as they would be in the shade.

These 12 year old palms, planted in highly alkaline, shell rock, have outgrown the 20 year old survivor planted in a low, sugar sand. The younger palms vary between 6' and 8-1/2' in overall height whereas the older palm is only 64" tall. The tallest 12 year old palm has bloomed for the first time this year and is now loaded with seeds. The 20 year old specimen has never bloomed.

Another *L. grandis* was planted 2 years ago on a mound of hardpan soil which was excavated from the bottom of our drainage ditch. This soil is dark brown and has a much finer texture than sugar sand. This soil seems to have a much higher level of moisture and nutrient retention. I've used this soil before and many *Licuala species* seem to prefer it. Our *L. grandis* planted on this mound is very healthy and very dark green. If you want to experiment with this type of soil, many garden centers sell it by the truckload. They call it fill and it's usually excavated from swimming pool construction sites.

L. grandis occasionally requires additional iron to look its best. Not all specimens, but some individuals seem to be genetically inclined to this deficiency. Our palms on shell rock with excellent drainage have never shown this deficiency, so drainage and soil PH might be a factor. Most *L. grandis* prosper with recommended fertilization and regular irrigation. In our garden *L. grandis* outperforms the larger, more exotic *Licuala peltata* var. 'sumawongii' (entire leaf form), which suffers greatly from iron deficiency when grown in sugar sand. In contrast, I have found that *Licuala peltata* var. *peltata* (split leaf form) grows well in sugar sand without additional iron supplement.

Cold sensitivity is an important consideration when growing *L. grandis* in Palm Beach County (PBC). Considering its tropical origin, that's not surprising. The 1989 freeze when nighttime lows dipped to 26°F on two consecutive nights, likely killed every *L. grandis* in PBC. We had a healthy specimen planted in a protected area next to our home in Jupiter. It died without any sign of recovery. Freezes of that magnitude do not occur often, and with our warming trend may be a thing of the past. The 2009-2010 winter repeated low temperatures killed 10 out of 15 specimens in our garden.

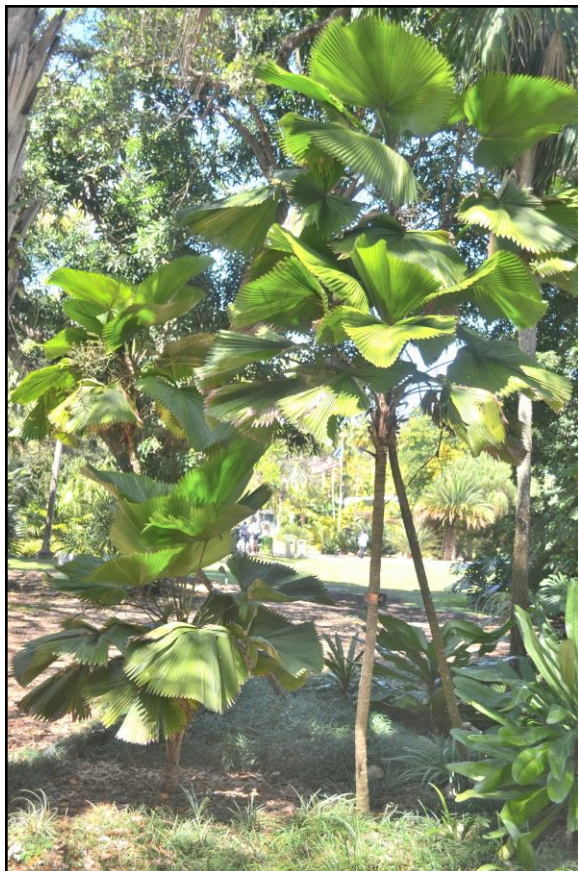
I don't think cold sensitivity should deter us from planting *L. grandis*. It's a reasonably priced palm that is readily available and it looks great from a young age, especially when planted in large groups. The past two major cold snaps, 1989 & 2009, were 20 years apart. So if that trend continues, you have 20 years to enjoy the beauty of this exotic little palm.

Let's review my observations in our garden and throughout South Florida. *L. grandis* looks best when planted in the shade, but it can be grown with more exposure to the sun. *L. grandis* seems to excel when planted in alkaline soil. Consider planting it near a home foundation where lime leaches from the concrete and raises the soil PH. *L. grandis* also seems to prefer heavier soil such as hardpan over sugar sand. If your palm's fronds begin to turn light green, supplement your palm fertilizer with extra iron.

I have a hard time identifying a more beautiful, tropical looking palm that grows so easily in PBC. I know it is not a rare palm in South Florida, but it should not be taken for granted. There are many palm enthusiasts around the world that wish they could grow this little gem. Our high humidity in PBC works to our advantage. It's difficult to grow in arid climates. Many of us have large expanses in our garden where it's too shady to grow grass. Consider *L. grandis* as the ultimate groundcover plant. Space several of them 4-5' apart and stand back and watch it become more beautiful every year.



Licuala grandis at Flamingo Gardens, Davie FL



Licuala grandis at Fairchild Garden, Coral Gables, FL



Licuala grandis at Page Garden, Palmetto Bay, FL



Licuala grandis in full sun at Beck Garden, 12 years old



Licuala grandis at Beck Garden Split leaf form, 11 years old



Licuala grandis with salmon colored peduncle at Beck Garden



Licuala grandis in heavy shade at Beck Garden
20 years old (left), 7 years old (right)



Licuala grandis inflorescence at
Beck Garden (12 years old)



Licuala grandis showing effects of repeated
low temperatures in 2010 in Coral Gables, FL



Same palm as shown on left
fully recovered in 2016



Licuala grandis grown on hardpan mound
2 years old at Beck Garden