**Family:** Arecaceae  
**Taxon:** Butia capitata  
**Synonym:**  
- Butia bonnetii (Linden ex Chabaud) Becc.  
- Butia capitata var. delicosa Prosch.  
- Butia capitata var. elegantissima (Chabaud) Becc.  
- Butia capitata var. erythrospatha (Chabaud) Becc.  
- Butia capitata var. lilaceiflora (Chabaud) Becc.  
- Butia capitata var. nehrlingiana (L. H. Bailey  
- Butia capitata var. odorata (Barb. Rodr.) Becc.  
- Butia capitata var. pulposa (Barb. Rodr.) Becc.  
- Butia capitata var. pygmaea Prosch.  
- Butia capitata var. subglobosa Becc.  
- Butia capitata var. virescens Becc.  
- Butia leiospatha (Barb. Rodr.) Becc.  
- Butia nehrlingiana L. H. Bailey  
- Cocos bonnetii Linden ex Chabaud  
- Cocos capitata Mart. (basionym)  
- Cocos odorata Barb. Rodr.  
- Cocos pulposa Barb. Rodr.  
- Syagrus capitata (Mart.) Glassman  

**Common Name:**  
- jelly palm  
- pindo palm  
- South American jelly palm

<table>
<thead>
<tr>
<th>Questionnaire</th>
<th>Status</th>
<th>Assessment</th>
<th>Assessor</th>
<th>Data Entry Person</th>
<th>Designation</th>
<th>WRA Score</th>
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<tbody>
<tr>
<td>Is the species highly domesticated?</td>
<td>y=3, n=0</td>
<td>n</td>
<td>Patti Clifford</td>
<td>Patti Clifford</td>
<td>L</td>
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<td>Has the species become naturalized where grown?</td>
<td>y=1, n=-1</td>
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<tr>
<td>Does the species have weedy races?</td>
<td>y=1, n=-1</td>
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<tr>
<td>Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute &quot;wet tropical&quot; for &quot;tropical or subtropical&quot;</td>
<td>(0-low; 1-intermediate; 2-high) (See Appendix 2)</td>
<td>High</td>
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<tr>
<td>Quality of climate match data</td>
<td>(0-low; 1-intermediate; 2-high) (See Appendix 2)</td>
<td>High</td>
<td></td>
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<tr>
<td>Broad climate suitability (environmental versatility)</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>Native or naturalized in regions with tropical or subtropical climates</td>
<td>y=1, n=0</td>
<td>y</td>
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<td>Does the species have a history of repeated introductions outside its natural range?</td>
<td>y=-2, ?=-1, n=0</td>
<td>y</td>
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<tr>
<td>Naturalized beyond native range</td>
<td>y = 1*multiplier (see Appendix 2), n= question 205</td>
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<tr>
<td>Garden/amenity/disturbance weed</td>
<td>n=0, y = 1*multiplier (see Appendix 2)</td>
<td>n</td>
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<td>Agricultural/forestry/horticultural weed</td>
<td>n=0, y = 2*multiplier (see Appendix 2)</td>
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<td>Environmental weed</td>
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<td>Congeneric weed</td>
<td>n=0, y = 1*multiplier (see Appendix 2)</td>
<td>n</td>
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<tr>
<td>Code</td>
<td>Description</td>
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<tr>
<td>401</td>
<td>Produces spines, thorns or burrs</td>
<td>y=1, n=0</td>
<td>y</td>
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<td>402</td>
<td>Allelopathic</td>
<td>y=1, n=0</td>
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<td>403</td>
<td>Parasitic</td>
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<tr>
<td>404</td>
<td>Unpalatable to grazing animals</td>
<td>y=1, n=-1</td>
<td>n</td>
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<tr>
<td>405</td>
<td>Toxic to animals</td>
<td>y=1, n=0</td>
<td>n</td>
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<td>406</td>
<td>Host for recognized pests and pathogens</td>
<td>y=1, n=0</td>
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<tr>
<td>407</td>
<td>Causes allergies or is otherwise toxic to humans</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>408</td>
<td>Creates a fire hazard in natural ecosystems</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>409</td>
<td>Is a shade tolerant plant at some stage of its life cycle</td>
<td>y=1, n=0</td>
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<tr>
<td>410</td>
<td>Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)</td>
<td>y=1, n=0</td>
<td>y</td>
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<tr>
<td>411</td>
<td>Climbing or smothering growth habit</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>412</td>
<td>Forms dense thickets</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>501</td>
<td>Aquatic</td>
<td>y=5, n=0</td>
<td>n</td>
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<tr>
<td>502</td>
<td>Grass</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>503</td>
<td>Nitrogen fixing woody plant</td>
<td>y=1, n=0</td>
<td>n</td>
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<td>504</td>
<td>Geophyte (herbaceous with underground storage organs — bulbs, corms, or tubers)</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>601</td>
<td>Evidence of substantial reproductive failure in native habitat</td>
<td>y=1, n=0</td>
<td>n</td>
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<tr>
<td>602</td>
<td>Produces viable seed</td>
<td>y=1, n=-1</td>
<td>y</td>
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<tr>
<td>603</td>
<td>Hybridizes naturally</td>
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<tr>
<td>604</td>
<td>Self-compatible or apomictic</td>
<td>y=1, n=-1</td>
<td>y</td>
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<tr>
<td>605</td>
<td>Requires specialist pollinators</td>
<td>y=-1, n=0</td>
<td>n</td>
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<tr>
<td>606</td>
<td>Reproduction by vegetative fragmentation</td>
<td>y=1, n=-1</td>
<td>n</td>
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<tr>
<td>607</td>
<td>Minimum generative time (years)</td>
<td>1 year = 1, 2 or 3 years = 0, 4+ years = -1</td>
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<tr>
<td>701</td>
<td>Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)</td>
<td>y=1, n=-1</td>
<td>n</td>
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<tr>
<td>702</td>
<td>Propagules dispersed intentionally by people</td>
<td>y=1, n=-1</td>
<td>y</td>
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<tr>
<td>703</td>
<td>Propagules likely to disperse as a produce contaminant</td>
<td>y=1, n=-1</td>
<td>n</td>
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<tr>
<td>704</td>
<td>Propagules adapted to wind dispersal</td>
<td>y=1, n=-1</td>
<td>n</td>
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<tr>
<td>705</td>
<td>Propagules water dispersed</td>
<td>y=1, n=-1</td>
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<tr>
<td>706</td>
<td>Propagules bird dispersed</td>
<td>y=1, n=-1</td>
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<tr>
<td>707</td>
<td>Propagules dispersed by other animals (externally)</td>
<td>y=1, n=-1</td>
<td>n</td>
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<tr>
<td>708</td>
<td>Propagules survive passage through the gut</td>
<td>y=1, n=-1</td>
<td>y</td>
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</table>
801 Prolific seed production (>1000/m2)       y=1, n=-1
802 Evidence that a persistent propagule bank is formed (>1 yr) y=1, n=-1  n
803 Well controlled by herbicides       y=-1, n=1
804 Tolerates, or benefits from, mutilation, cultivation, or fire y=1, n=-1
805 Effective natural enemies present locally (e.g. introduced biocontrol agents) y=-1, n=1

Supporting Data:
101 2012. WRA Specialist. Personal Communication. [Is the species highly domesticated? No] No evidence of domestication that reduces invasive traits.
102 2012. WRA Specialist. Personal Communication. [Does the species have weedy races? NA]
103 2012. WRA Specialist. Personal Communication. [Has the species become naturalized where grown? NA]
201 2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl [Species suited to tropical or subtropical climate(s) - If island is primarily wet habitat, then substitute "wet tropical" for "tropical or subtropical"? 2 - high] Native distribution: Brazil; Argentina [possibly]; Uruguay
USDA Zone 8a: to -12.2 °C (10 °F)
USDA Zone 8b: to -9.4 °C (15 °F)
USDA Zone 9a: to -6.6 °C (20 °F)
USDA Zone 9b: to -3.8 °C (25 °F)
204 2010. Wunderlin, R.P./Hansen, B.F./Franck, A.R./Bradley, J.M.. Plants New to Florida. Journal of the Botanical Research Institute of Texas. 4(1): 349 – 355. [Native or naturalized in regions with tropical or subtropical climates?] This report states that Butia capitata is naturalizing in Florida. No description of naturalize is given or how many plants were found.
204 2012. USDA ARS National Genetic Resources Program. Germplasm Resources Information Network - (GRIN). http://www.ars-grin.gov/cgi-bin/npgs/html/index.pl [Native or naturalized in regions with tropical or subtropical climates? Yes] Native distribution: Brazil; Argentina [possibly]; Uruguay
Butia capitata (Arecaceae)

[Produces spines, thorns or burrs? Yes] "Pindo palm is a solitary-stemmed feather palm growing 2-6 m in height. The trunk can reach about 0.5 m in diameter and remains clothed in old leaf bases for many years. The canopy consists of 18-32 arching leaves that vary from yellowish green to greyish green. Each leaf is 2.5-3 m long. The petiole is short, broad and armed with fibre spines."

[Allelopathic? Unknown]

[Host for recognized pests and pathogens?] Bruchid weevils sometimes infest the seed.

[Causes allergies or is otherwise toxic to humans?] Fruit is edible.

[Causes allergies or is otherwise toxic to humans? No] No evidence of toxicity.

[Is a shade tolerant plant at some stage of its life cycle?] Full sun; sun to partial shade.

[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)? Yes] Soil tolerances: clay; sand; loam; slightly alkaline; acidic; well-drained

[Tolerates a wide range of soil conditions (or limestone conditions if not a volcanic island)?] Soil pH: 6.6-7.5 (neutral).

[Is a shade tolerant plant at some stage of its life cycle?] Full sun, partial sun, partial shade.


[Creates a fire hazard in natural ecosystems? No] No evidence of the rapid accumulation of fuels or volatile oils that would increase fire hazard.


[Unpalatable to grazing animals?] Deer resistant.

[Unpalatable to grazing animals?] No evidence of toxicity.

[Is a shade tolerant plant at some stage of its life cycle?] Palm, 2-6 m in height.

[Climbing or smothering growth habit? No]
Forms dense thickets? No] No evidence of thicket formation.

Aquatic? No Terrestrial; palm.

Grass? No Arecaaceae; palm.


[Geophyte (herbaceous with underground storage organs -- bulbs, corms, or tubers)? No] Palm.

[Evidence of substantial reproductive failure in native habitat?] Butia capitata shows serious regeneration problems which jeopardizes its continuity in the future, in Uruguay (part of its native range).

[Produces viable seed? Yes] Propagation is by seed which take many months for germination.

[Requires specialist pollinators? No] "There is more information on the Cocoeae than for any other group of palms, including the four most rigorous studies, those of Anderson (1983), Beach (1984), Sholdt and Mitchell (1967), and Syed (1979). Cocos and the closely related Butia exhibit mellitophily. All other genera studied are cantharophilous." [bee pollinated]

[Self-compatible or apomictic?] "Butia capitata a is monoecious and protandric species, characteristics that suggest outcrossing. Systematic studies on its mating system have not been conducted. Rivas and Barilani (2004) found high levels of phenotypic variability in its largest population as expected."

[Requires specialist pollinators?] "Pollination is likely to be entomophilous, though anemophilous pollination can not be disregarded."

[Reproduction by vegetative fragmentation? No] Reproduction by vegetative fragmentation? No] Propagation is by seed which take many months for germination.

[Reproduction by vegetative fragmentation? No] [Reproduction by vegetative fragmentation? No] Reproduction Methods: From seed; direct sow outdoors in fall From seed; germinate in a damp paper towel From seed; germinate in vitro in gelatin, agar or other medium

[Minimum generative time (years)? ] Slow growth rate.

[Propagules likely to be dispersed unintentionally (plants growing in heavily trafficked areas)? No] No evidence of accidental dispersal. [palm is a popular ornamental]


Butia capitata (Arecaceae)
Butia capitata (Arecaceae)

- Pragules dispersed intentionally by people? Yes
- Butia capitata is a popular ornamental palm used for landscaping in Florida.
- Pragules likely to disperse as a produce contaminant? No
- No evidence.
- Pragules adapted to wind dispersal? No
- Cerdocyon thous, Procyon cancrivorus are dispersers of Butia capitata. [This species is documented as dispersed by mammals; no adaptation for wind]
- Pragules water dispersed? No research on buoyancy for this species.
- Pragules bird dispersed? Unknown
- Pragules adapted to other animals (externally)? No
- No means of external attachment.
- Fruit shape: round
- Fruit length: .5 to 1 inch
- Fruit covering: fleshy
- Fruit color: yellow, orange
- Fruit characteristics: attracts squirrels/mammals
- Pragules survive passage through the gut? Yes
- "Seed dispersal is performed by frugivorous mammals, particularly foxes, reaching a dispersal range of 0.5-2 km.
- Prolific seed production (>1000/m2)? Unknown
- Palms are from tropical, subtropical and warm temperate areas of the world. Conditions in these climatic areas do not lend themselves to long-term storage. Under natural conditions, most palm seeds remain viable for only a few weeks. Only under special storage conditions as developed and described by Broschat and Donselman (1986 and 1987) can seeds be successfully stored for a year or longer. With few exceptions, a rest or storage period is not beneficial. The key seems to be that the more seasonal the native habitat, the greater the low temperature storage tolerance. Butia capitata actually germinates following a period of dry storage in temperatures as low as 5.5°C for 150 days. This is not a recommended procedure for any species of palm, including Butia capitata. However, most tropical palms stored below 15°C will lose viability."
Summary of Risk Traits

**High Risk Traits:**

- Native to subtropics.
- Naturalized in Florida (possibly).
- Leaves have sharp spines.
- Wide soil tolerance.
- Hybridizes with other palm genera.

**Low Risk Traits:**

- Not a weed in temperate, subtropical or tropical environments.
- No invasive weeds in the genus.
- Non-toxic to humans and animals.
- Does not create a fire hazard.
- Slow-growing.
- Does not develop a persistent seed bank.