

- 60. *Manilkara bidentata* (A. DC.) Chev.** - bortri
60a. *Manilkara surinamensis* (Miq.) Penn.
60b. *Manilkara huberi* (Ducke) Chev. - basrabortri
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Synonyms (60, 60a) : *Manilkara balata* (Pierre) Dubard, *Manilkara amazonica* (Huber) Chev.

Family : Sapotaceae

Vernacular names

- Suriname : Bolletrie / Balata / Paardevleeshout
 Guyana : Bulletwood / Balata / Beefwood / Iriar / Kobero / Purue
 French Guiana : Balata franc / Balata rouge / Balata gomme
 Brazil : Massaranduba / Maparajuba / Paraju
 Venezuela : Balata / Massa randu
 Columbia : Balata / Nispero / Trapichero
 Peru : Pamashto / Quinilla colorado

International trade name : Macaranduba

Occurrence : Suriname, Guianas, Brazil, Tropical South America

Tree description

- Bole length : bole 20 - 25 m; tree height 30 - 45 m
 Diameter : 0.45 - 1.50 m
 Log shape : straight, cylindrical and slender

Wood description

- Sapwood : distinct, pink beige to pale brown
 Heartwood : light to dark red brown, upon exposure to dark purple brown
 Grain : straight, occasionally wavy or interlocked
 Texture : fine

Technological characteristics

Physical properties (60)

	<i>M. bidentata</i>	
Green density	(g/cm ³):	1.30
Air dry density at 12% MC	(g/cm ³):	1.09
Tot. tangential shrinkage	(%) :	9.4
Tot. radial shrinkage	(%) :	6.3
Tot. volumetric shrinkage	(%) :	17.0

Mechanical properties (60)

	<i>M. bidentata</i>
Bending strength at 12% MC	(N/mm ²): 190
Modulus of elasticity (MOE) at 12% MC	(N/mm ²): 19300
Crushing strength at 12% MC	(N/mm ²): 87

Processing

Sawing	: difficult, power required; blunting effect: moderate
Drying	: difficult, slow and carefully; risk of distortion and checking: high; risk of casehardening. US kiln schedule T1 - B1 for 25-38 mm stock
Machining*	: power required but moderately easy; special tools recommended
Gluing	: with special precautions
Nailing	: pre-boring necessary; good holding of nails
Finishing	: good
Veneering	: slices well

Natural durability

Decay fungi	: good to very good
Termites	: very good
Marine borers	: poor

Treatability (heartwood) : poor

End uses : heavy constructions, bridges, flooring, carpentry, stairs, naval construction, violin bows, billiard cue butts, furniture components.



Log shape

Bortri - *Manilkara bidentata* (A. DC.) Chev.

* wood dust may cause skin irritation (dermatitis).