

Pungkol Tall (PGLT)

Kumaunang J, Mangindaan HF

Conservation

Pungkol Tall (PGLT) is conserved at the Mapanget Experimental Garden of the Research Institute for Coconut and Palmae, North Sulawesi, Indonesia. The accession is composed of 53 palms.

History

Pungkol Tall was first found in a plantation in Wawontulap Bahasa, Tumpaan District, Minahasa in North Sulawesi, Indonesia.

Identification

Pungkol Tall has a girth of 173 cm at 20 cm above the ground and 111 cm at 1.5 m above the ground. The length of the stem with 11 leaf scars is 129 cm. Pungkol Tall has a big-sized bole. The leaf crown is spherical. The length of the rachis is 465 cm; the number of leaflets counted on one side of the leaf reaches 115; and length of the leaflets is 144 cm. Petiole length is 170 cm, petiole width is 8.2 cm and the petiole thickness is 3.3 cm. The inflorescence has the following characteristics: length of central axis is 39 cm; the length of stalk is 40 cm and the number of female flowers per inflorescence is 16. Green is the dominant colour of the fruits, although there are a few yellowish-green and red coloured fruits.

Yield and production

The flowering of Pungkol Tall begins six to seven years after planting. Palms produce 12 to 14 bunches per palm per year. There is a range of 5 to 10 fruits per bunch. The potential of production of Pungkol Tall reaches 2.5 tons of copra per hectare per year. Whole fruit weight is 1440g; weight of meat, 455g; weight of husk, 356g; and weight of shell, 272 g.

Other information

Pungkol Tall is well adapted to its habitat, is tolerant to *Phytophthora* and has good potential to be a source of seednuts for planting. Observations are being done periodically to determine its suitability for use in the Indonesian breeding programme.

References

- Miftahorrahman, Mangindaan H, Novarianto H. 1996. Genetic diversity for fruit components of Tall coconuts of North Sulawesi. *Zuriat* 7:7-16 (Bahasa Indonesia).
- Novarianto H, Kumaunang J, Maskromo I. 1999. Morphological variance of coconut germplasm. *Bulletin Palma* 25:31-38 (Bahasa Indonesia).

Pungkol Tall (PGLT)



Raja Brown Dwarf Ternate (RBD01)

Bourdeix R, Konan JL, Ballo K

Conservation

Raja Brown Dwarf (RBD) is conserved in Côte d'Ivoire, with 70 living palms, and in Indonesia, with 84 living palms. This variety is probably closely related to the Madang Brown Dwarf, which is much more widespread, with more than 500 living palms collections in 5 countries.

History

The Moluccas is an archipelago in eastern Indonesia, north of Australia, totaling 1208 islands. This cultivar comes from Ternate, which is known for its still-active three-cratered volcano, Mount Gamalama. Worldwide, Brown Dwarf coconut palms are rarer than their Green, Yellow and Red counterparts. Genetically, the Raja Brown Dwarf is very similar to the Madang Brown Dwarf, introduced earlier from Côte d'Ivoire.

Identification

Raja Brown Dwarf is a small palm with a slender stem, and without a bole under Ivorian growing conditions. The fronds have a very long petiole and an average size rachis. It has quite a large number of leaflets for a Dwarf. The long peduncle gives the impression of a very precocious palm; the first fruits produced quite often rest on the ground. On average, flowering begins 32 months after planting (i.e., around 3 months later than the Malayan Yellow Dwarf) when planted under the same conditions. The fruits are ovoid, deep brown in colour, without prominent ridges, and clearly rounder than those of the Madang Brown Dwarf. They weigh 741g in average. In Côte d'Ivoire, the fruits have a better composition than those grown in Indonesia, with more meat (272g) and less husk content. The copra weighs 154g on average and is very rich in oil. Brown Dwarfs are susceptible to environmental variations. Caution is therefore called for when using morphological criteria for varietal recognition. In Côte d'Ivoire, the Raja Brown Dwarf Ternate produces larger, rounder and fuller fruits than those of the Madang Brown Dwarf from Papua New Guinea (but these two Dwarfs are planted in different plots, which limit the precision of the comparison). Recent molecular biology studies show that the RBD is very uniform, and very similar to the Madang Brown Dwarf from Papua New Guinea, and the so-called Raja Brown Dwarf also collected in the Moluccas.

Yield and production

In Côte d'Ivoire, RBD currently produces low yields of around 27 fruits per palm per year. This low productivity is linked to its susceptibility to attacks by a bug of the genus *Pseudotheraptus*. The plot in which it has been planted is next to a forest, from which these bugs arrive in large numbers, causing fruits abortion. However, fruit set observations suggest that this Dwarf would produce from 60 to 80 fruits per palm per year under more normal conditions.

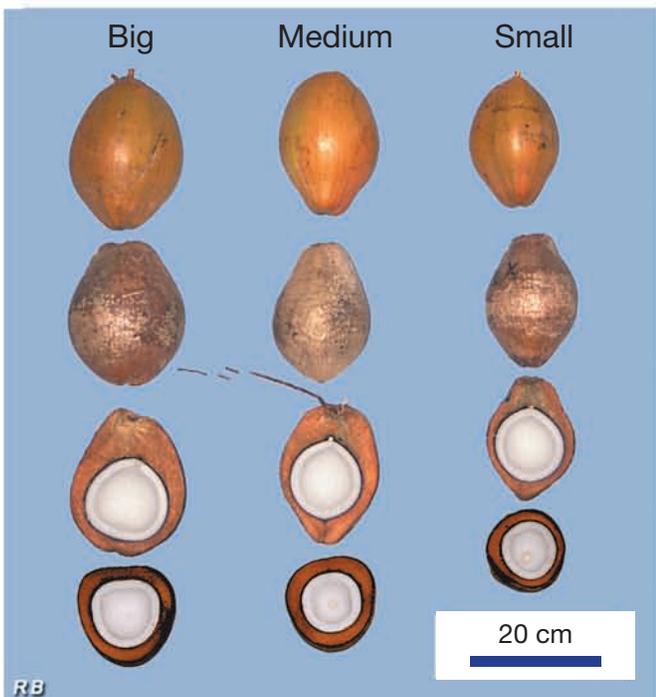
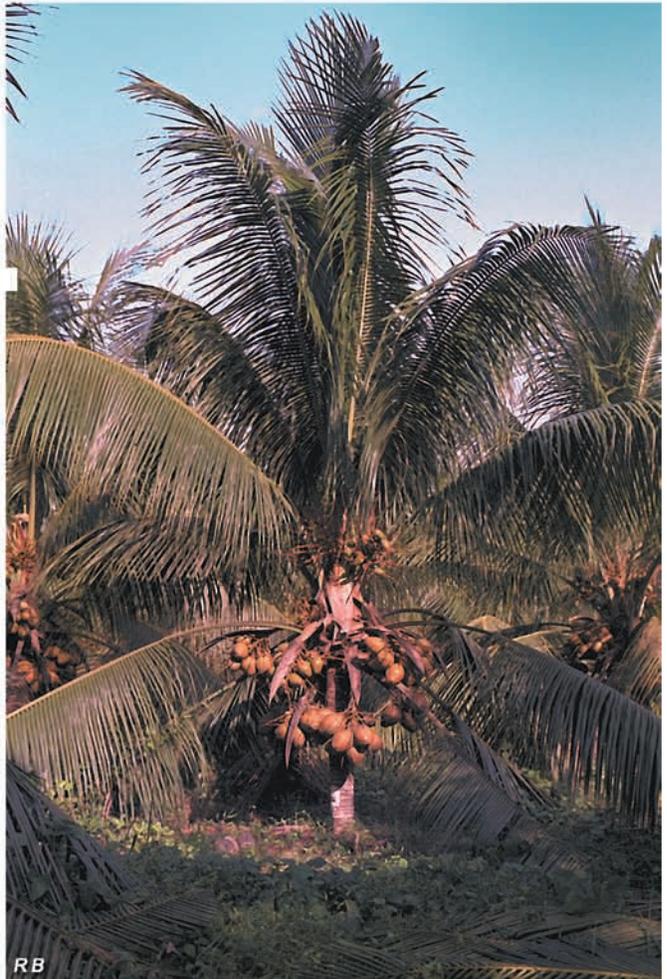
Other information

In Côte d'Ivoire, RBD was crossed in 2000 with ten other varieties, two Talls and eight Dwarfs. The hybrid progenies are currently being assessed for their agronomic and yield performance.

Reference

Konan JL. 2005. The International Coconut Genebank for Africa and Indian Ocean (Côte d'Ivoire). In: Status of coconut genetic resources. Batugal P, Ramanatha Rao V, editors. IPGRI-APO, Serdang, Malaysia. pp 111-112.

Raja Brown Dwarf Ternate (RBD01)



Santongbolang Tall (SNTT)

Tenda ET, Kumaunang J

Conservation

Santongbolang Tall (SNTT) is conserved at the Research Institute of Coconut and Palmae (RICP) in Mapanget, North Sulawesi, Indonesia. The site located at 80 m above sea level and receives 3500 mm of annual rainfall.

History

This variety is named after Santongbolang village, located about 125 km from Manado. Santongbolang Tall was found only in a very small farm; a hundred SAGT palms were planted in RICP.

Identification

Santongbolang Tall has a stem that is rather thin for a Tall coconut. The inflorescences have long stalks and central axis. The spikelets are large and bear a high number of female flowers. The number of female flowers per inflorescence varies from 60 to 110. Fruits are mostly green colour; they are small to medium in size with a round shape.

Yield and production

Flowering generally begins at six years after planting. The palms produce 12 to 14 bunches per year. The number of fruits varies from 50 to 64 fruits per palm per year, and may reach up to a hundred or more. Santongbolang Tall has a potential annual production of 2.5 tons of copra.

Other information

Santongbolang Tall, with its small to medium size but large number of fruits, has potential as parent material in a hybridization programme to increase productivity. Medium-sized fruits are ideal for tender coconuts which are preferred by consumers. This variety is not yet used in the breeding programme in Indonesia.

References

- Miftahorrachman, Mangindaan H, Novarianto H. 1996. Genetic diversity for fruit components of Tall coconuts of North Sulawesi. *Zuriat* 7:7-16 (Bahasa Indonesia).
- Novarianto H, Kumaunang J, Maskromo I. 1999. Morphological variance of coconut germplasm. *Bulletin Palma* 25:31-38 (Bahasa Indonesia).

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