Marinsow Tall (MWT)

Kumaunang J, Mangindaan HF

Conservation

Marinsow Tall (MWT) is conserved at the Mapanget Experimental Garden of the Research Institute for Coconut and Palmae in North Sulawesi, Indonesia. The accession is represented by 35 palms.

History

This variety was first found in Marinsow Estate, Likupang District, Minahasa in North Sulawesi.

Identification

Palms of Marinsow Tall have a stem girth of 159 cm at 20 cm above the ground and 118 cm at 1.5 m above the ground. The length of stem containing 11 leaf scars is 127 cm. This variety has a big-sized bole. The leaf crown is spherical. The leaf has the following characters: petiole length, 161 cm; petiole width, 13.6 cm, which is wider than that of other Talls; and petiole thickness, 3.2 cm. The length of the rachis is 476 cm with 112 leaflets (counted on one side of the leaf) which are 136 cm long. The inflorescence has a central axis that is 40 cm long and a stalk that is 42 cm long. There are 23 female flowers per inflorescence on average. The fruit is predominantly green although a small number may be yellowish-green or red.

Yield and production

Marinsow Tall begins to flower six to seven years after planting. It produces 12 to 14 bunches per palm per year, with fruits varying in number from 5 to 8 per bunch. The potential production of the variety may reach two tons of copra per hectare per year. Whole fruit weight is 1183g; weight of meat is 428g; weight of husk is 286g; and weight of shell, 207g.

Other information

Marinsow Tall is adapted to drought, water-logging and low temperature and is tolerant to *Phytophthora* sp. Like other Talls that are already adapted to their habitat, MWT has good potential as source of planting material. Observations are being done periodically to assess its potential for use in future breeding programme in Indonesia.

References

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JTO


JTO


JTO


Big
Medium
Small
20 cm
JTO


JTO

Palu Tall (PUT)

Tulalo MA, Novarianto H, Bourdeix R

Conservation

Palu Tall (PUT) is conserved at four coconut germplasm centres, three in Indonesia and one in Côte d'Ivoire, Africa. In Indonesia, it is located at Mapanget, Pakuwon, and Sikijang, in Sulawesi, Java and Sumatra islands. A total of 262 palms are conserved in the germplasm centres according to the 2002 Coconut Genetic Resources Database.

History

From 1973 to 1975, vast surveys of coconut germplasm were carried out in selected areas of 11 provinces of Indonesia. Palu Tall was collected at Bangga-Palu District, in the central part of Sulawesi Island. This variety was described as high yielding by the local farmers.

Identification

Palu Tall is one of the Tall varieties from Southeast Asia producing big round fruits and having a thick straight stem with large bole at the base. It is difficult to differentiate the related varieties coming from the same region such as, for instance, the Tenga Tall (TGT) or Tagnanan Tall (TAGT) from the Philippines. The stem is thick and begins with a well developed bole (girth of 179 cm and 171 cm in Indonesia and Africa, respectively). The leaf is very long (7.3 m) with large and thick petiole at Mapanget Experimental Station in Indonesia. PUT big round fruits have very low husk content. The colour of the fruit is mainly green but brown to yellow-brown tints can also be found.

Yield and production

In Indonesia, the first inflorescences open five years after planting and first fruits are harvested on the sixth year. Normally, at an adult age, production of fruit ranges from 80 to 100 per palm per year depending on environmental factors and cultural practices. The fruit weighs 1703g and the nut 1334g. Meat weight is 537g, with 303g copra per nut having an oil content of 69%.

Other information

Palu Tall is resistant to drought because of its high content of epicuticular wax and leaf oil. It is also resistant to bud-rot diseases. PUT was recommended as a high yielding Tall variety. It has been planted in some provinces by smallholders and private and government estates. Based on the chemical characteristics of its meat and water, PUT can be used to produce coconut milk, copra and oil. PUT has a low phospholipid content, high carbohydrate, protein, reduced sugar and low galactomanan content. PUT has been used as a male parent in hybridization with Nias Yellow Dwarf to produce the coconut hybrid Khina-3.

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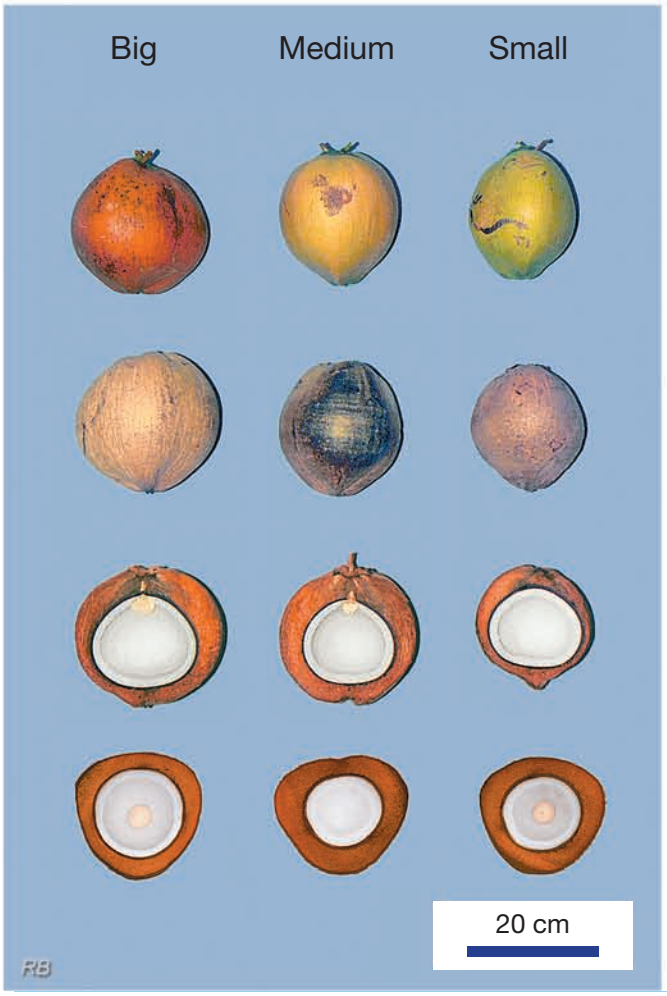
Big
Medium
Small
20 cm

Pandu Tall (PDT)

Miftahorrachman, Lengkey HG

Conservation

Pandu Tall (PDT) is conserved at the Research Institute for Coconut and Palmae in Mapanget, North Sulawesi, Indonesia.

History

In September 1980, the National Germplasm Commission gave the mandate for the exploration of coconut in North Sulawesi to the then Industrial Crops Research Institute (now the Research Institute for Coconut and Palmae). This variety was collected in 1983.

Identification

Pandu Tall is a full-sized Tall coconut. Its stem has a large bole, with a girth of 180 cm at 20 cm above the ground and 109 cm at 1.5 m above the ground. The length of the stem with 11 leaf scars is 116 cm. The leaves are medium-sized, with a petiole length of 169 cm; petiole width of 8.3 cm; and petiole thickness of 3.5 cm. The rachis is 456 cm, with the number of leaflets reaching 114 (counted on one side of the leaf). Leaflets have a length of 140 cm. Inflorescences are medium-sized. The length of the central axis is 36.5 cm on average but may range from 25 cm to 49 cm. The length of the stalk (peduncle) also varies from 31 to 52 cm with an average of 42 cm. Pandu Tall has a short female phase which begins after all the male flowers had fallen down. The number of female flowers per inflorescence is quite variable within the population. Observation on 12 palms showed that the number of female flowers per inflorescence varies from 2 to 18 (mean=7.4). The fruits are mostly green to yellowish green with a few that are brown coloured. Pandu Tall has medium- to big-sized fruits with almost round shape. The husked nuts are large and round-shaped.

Yield and production

Flowering begins five to six years after planting. This variety produces 12 to 14 bunches per palm per year, with fruits that vary in number from 5 to 8 fruits per bunch.

Other information

Based on observations from 1982 to 1996, there were no adverse effects of drought on the growth of Pandu Tall. Also, there is not record of any serious infestation or disease of the palms of this variety. This variety, being adapted to its habitat, has good potential as source of planting materials.

Pandu Tall, together with 16 Talls from North Sulawesi, was analyzed with molecular markers in a diversity study. The results showed that PDT, MPT-32, MPT-99, Aertembaga Tall and Tontalete Tall belong to the same group.

Reference

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Pandu Tall (PDT)