

Sea Tall (SET)

Mangindaan HF, Kumaunang J

Conservation

Sea Tall (SET) is conserved at the Mapanget Experimental Garden of the Research Institute for Coconut and Palmae in North Sulawesi, Indonesia. The accession has a total of 46 palms.

History

Sea Tall was found in Sea Bahasa, Pineleng District, Minahasa in North Sulawesi and seednuts were collected during the period 1980-1981. Sea is a word in Bahasa language (not the English word for 'ocean').

Identification

Sea Tall has a stem girth of 184 cm at 20 cm above ground level and 115 cm at 1.5 m above ground level. This variety has a big size bole with rather thick stem at 2 m above ground level. The leaf crown is spherical, with the following leaf characters: petiole length, 170 cm; petiole width, 8.3 cm; and petiole thickness, 3.3 cm. The rachis has a length of 469 cm and has 119 leaflets (counted on one side of the leaf), each one being 140 cm long. The inflorescence has a central axis that is 44 cm long; a stalk that is 46 cm long and on average, 24 female flowers. The fruit is predominantly green although a small number may be yellowish green or red in colour.

Yield and production

Flowering begins five to six years after planting. Sea Tall produces 12 to 14 bunches per palm per year, with 5 to 8 fruits per bunch.

The potential production of SET may reach 2.5 tons of copra per hectare per year. Whole fruit weight is 1248g; weight of nut is 910g; weight of meat is 394g; weight of husk is 322g and weight of shell, 173g.

Other information

Drought affects the yield performance of this variety. Sea Tall has potential for use as planting material for Indonesia's coconut intensification/rehabilitation programme. Observations are still ongoing to determine this variety's potential use in the breeding programme in Indonesia.

References

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- Novarianto H, Kumaunang J, Maskromo I. 1999. Morphological variance of coconut germplasm. *Bulletin Palma* 25:31-38 (Bahasa Indonesia).

Sea Tall (SET)



Tenga Tall (TGT)

Novarianto H, Bourdeix R

Conservation

Tenga Tall (TGT) is conserved in four coconut germplasm centres, three located in Indonesia at Mapanget in North Sulawesi; in Pakuwon in Java and in Sikijang in Sumatra islands, and one located in Côte d'Ivoire. The total number of palms conserved is 340. Most of the coconut seed gardens in Indonesia have also planted TGT as male parent for the production of the hybrid Khina-1.

History

Tenga is the name of a village located in Minahasa district, in the northern part of Sulawesi Island of Indonesia. Tenga Tall is one of the varieties collected during the first survey of Indonesia coconut germplasm in the early 1970s. This survey, conducted by DV Liyanage with the Research Institute for Coconut and Palmae staff, was carried out in 11 provinces. They selected TGT because of its high copra yield per palm. When the survey was conducted, the original TGT population was already about 70 years old.

Identification

Tenga Tall is one of the Tall varieties from Southeast Asia producing big round fruits and having a thick straight stem with a large bole at the base. It is difficult to differentiate all the related varieties coming from the region, such as TGT and the Palu Tall (PUT). The stem grows fast, its height reaching about 11.4 m by the 18th year in Indonesia. In Africa, it only reaches 3.9 m during the 10th year. It has a big bole at the base of the stem; girth of about 190 cm (in Indonesia) and 186 cm (in Africa). The leaves are quite long, up to 6.3 m in Indonesia. The colour of the petiole is mostly green as well as the bunches. The inflorescence is long. Reproduction is predominantly allogamous. Fruits are mostly green, but some palms are greenish brown in colour. The TGT palms carry very round fruits with low husk content. Sometimes the equatorial diameter of the fruit is even bigger than the polar area, giving a very special flat effect.

Yield and production

In Indonesia, Tenga Tall starts flowering four years after planting. In Africa, flowering begins only after six years and production after seven years. TGT produces about 16 leaves and 14-16 bunches per year at maturity. Fruit production is about 90-100 nuts per palm per year in Indonesia but less than 40 in Africa. The fruit weighs 1843g, the nut without husk 1209g, the kernel 538g, and the copra content is 250-275g per nut. The oil content of copra is 64%. In Indonesia, TGT is known as a high-yielding variety which is able to produce about 3.5 t of copra per ha per year.

Other information

Tenga Tall is tolerant to drought and bud-rot disease. Its hybrid with Nias Yellow Dwarf, known as Khina-1, is also resistant to bud-rot. TGT fruits are very suitable for copra, cooking oil and desiccated coconut production. The shell is good for charcoal production. Since 1974, the TGT has been used as a pollen source for Nias Yellow Dwarf in producing the Khina-1 hybrid. This hybrid was released in 1984, and until 2000, there are about 20,000 ha planted with Khina-1 hybrid in Indonesia.

References

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- Novarianto H. 1992. Estate Crops. Survei penyakit busuk pucuk (*Phytophthora* sp.) pada beberapa varietas kelapa di Indonesia. Jakarta, Indonesia.

Tenga Tall (TGT)

