

Thailand Green Dwarf (THD)

Bourdeix R, Petchpiroon C, Konan JL

Conservation

The Thailand Green Dwarf (THD) which was collected by the Sawi Research Station in southern Thailand was introduced into Côte d'Ivoire in 1977, then in Vanuatu in 1982. It is conserved only in collections in these 2 countries, with 3 accessions totalling 212 living palms, according to the 2002 Coconut Genetic Resources Database.

History

The Thailand Green Dwarf is greatly appreciated in Asia for the flavour of its drinking nuts. In fact, there are several forms of this Dwarf, the most familiar being known as 'aromatic', due to the pleasant aroma of its water. The variety in the photo comes from the town of Thung Kled, in Muang district. It is not the aromatic form, of which, unfortunately, only few palms exist in Africa. However, the two forms look alike and the main difference is the taste.

Identification

Various other Green Dwarf varieties described in this catalogue easily stand out from the THD. Most other Green Dwarfs do not produce such round small fruits. Some Malayan Green Dwarfs, not described in this catalogue, also have fruits that are as round. It is virtually impossible to tell them apart from the THD. In any case, the two countries of origin (Malaysia and Thailand) have a common border and these two types of Green Dwarf are probably related. Even on a certified 'aromatic' Green Dwarf, not all the fruits have the special flavour. It depends on the type of pollen used to fertilize the female flower from which the fruit develops; pollen should come from an aromatic coconut.

Yield and production

The fruits are of average size, very round and deep green in colour. A fruit weighs approximately 650g on sandy soils in Côte d'Ivoire and in the Philippines; 800g in Thailand; and more than 1200g in Vanuatu. These variations are solely linked to differences in growing conditions. These data provide a good idea of the potential that could be reached with irrigation and regular fertilization. Fruit composition is good, with high meat content when ripe. Under good conditions, this Dwarf starts bearing three years after planting. Its frond and bunch emission is rapid. Yields on adult palms reach around 60 nuts per palm per year under the coastal conditions in Côte d'Ivoire. In other more favourable ecologies, production is probably greater.

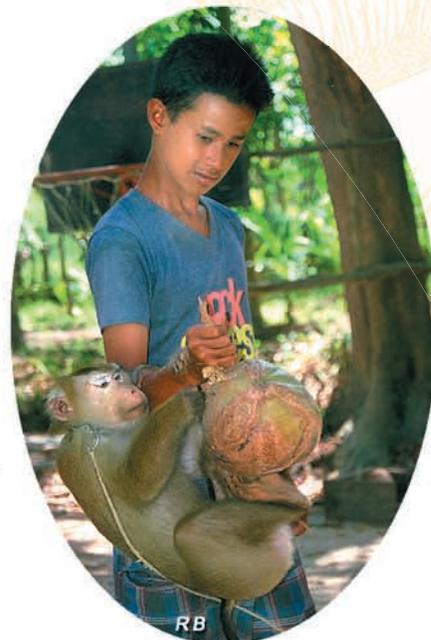
Other information

The aromatic forms of the Thailand Green Dwarf have water that stands out because of its unique flavour, having a delayed and long-lasting effect in the mouth. When appreciating tastes, cultural specificities need to be taken into account. For instance, in Vanuatu, a drinking nut tasting-test gave surprising results. The tasters were blindfolded and asked to compare the Thailand Aromatic Green Dwarf, the Brazilian Green Dwarf and the Vanuatu Tall. The tasters easily detected the special aroma of the THD, but almost all of them preferred the taste of the other two varieties. If an Aromatic Green Dwarf is crossed with another non-aromatic variety, the first generation progeny will be non-aromatic. However, in the second generation, this trait will reappear in some of the progenies. In Thailand, the Chumpon Horticultural Centre is studying aromatic Green Dwarfs in order to determine whether there are any qualitative and quantitative differences in the flavour depending on the palms. In Côte d'Ivoire, the THD was also crossed in 1993 with nine other Dwarfs and one Tall variety.

Reference

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Thailand Green Dwarf (THD)



Thailand Tall Sawi (THT01)

Thirakul A, Petchpiroon C, Bourdeix R

Conservation

According to the 2002 Coconut Genetic Resources Database, the Thailand Tall Sawi (THT01) is represented by 3 accessions with 1265 living palms in the collections of Thailand and Côte d'Ivoire.

History

This Thailand Tall variety was collected in the 1970s near the Sawi Horticultural Research Centre, located in Chumphon province, southeastern Thailand.

Identification

The Thailand Tall Sawi, also called 'Maphrao Yai', is characterized by palms bearing a small number of large round to oblong fruits, with thin to moderate husk, high water content and a relatively thin kernel. It is like the typical Southeast Asian varieties, with a thick straight stem beginning with a large bole, slowly increasing its fruit yields up to at least the 20th year. From the 3rd to 12th year, it grows about 80 cm per year. On the average, a fruit weighs 1890g (in Thailand) to 1990g (in Côte d'Ivoire). The inner nut is oblate in shape with a somewhat flat bottom weighing 1300-1400g. The 560-610g kernel gives 300-320g of thin copra when dried.

The THT01 is viviparous; fruits begin to germinate high in the palms before falling naturally to the ground. This condition is not commercially desirable. To avoid spoilage of fruits through germination, it is necessary to pick the ripe fruits from the top, often using trained monkeys.

Yield and production

Thailand Tall Sawi does not start bearing until about six years after planting in Thailand. In farmers' fields, average yields are low at 20-25 fruits per palm, although individual palms may give 60 to 90 fruits. Yields at maturity rarely exceed 1.5–2 t copra per ha. Copra oil content is about 60-62%. In Côte d'Ivoire, production has only been recorded at the research centre. It began on the 6th year with 31 fruits per palm. Production then fluctuated between 30 and 60 fruits up to the 12th year. Later production ranged from 78 to 111 fruits per year.

Other information

A genetic improvement programme was launched by the Sawi Horticultural Research Centre in 1960. Thailand's seed gardens produce at least 250,000 hybrid seednuts annually, under the names of SAWI 1 and SAWI 2. These hybrids are PB121 (Malayan Yellow Dwarf x West African Tall) and PB132 (Malayan Red Dwarf x West African Tall) initially created in Côte d'Ivoire. The fruits of these two hybrids are sometimes considered too small by growers. Hence, distribution of a hybrid with large fruits started in 1984. A seed garden was established to supply Thailand Tall Sawi x West African Tall seednuts. This was the first use of a Tall x Tall hybrid in a development programme. In Jamaica, the Thailand Tall Sawi proved to be relatively resistant to lethal yellowing disease, with 32% mortality compared to 89% for the Jamaica Tall variety.

References

- Dootson J, Thirakul A, Petchpiroon C, Rattanapruk M. 1988. Early yield of coconut varieties in Thailand. *Oléagineux* 43:445-451.
- Thirakul A, Harries HC. 1982. Description of four different coconut populations in Thailand. Papers presented at a seminar on plant genetic resources, 2-5 September 1982, Bangkok, Thailand.

