

Panama

Genebank

No registered Coconut genebank

Contact

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The Republic of Panama is the southernmost country of Central America. Situated on the isthmus connecting North and South America, it is bordered by Costa Rica to the northwest, Colombia to the southeast, the Caribbean Sea to the north and the Pacific Ocean to the south.

Coconut was present in Panama from pre-Columbian times but its origin and introduction date is unknown (Zizumbo and Quero 1998). For centuries, agriculture was the dominant economic activity for most of Panama's population. After the construction of the canal, agriculture declined and the proportion of the labour force in agriculture dropped. As far as we know, there is no research conducted by national researchers on the coconut palm. Furthermore, the popularity of Panama Talls peaked in the 1980s, when studies conducted in Jamaica concluded that, along with their hybrids, they were among the varieties with greatest tolerance to lethal yellowing. In Jamaica, following periods of severe hurricane activity in 1903, 1904, 1912-1917, large numbers of nuts of the Panama Tall variety were imported from the San Blas Islands of Panama. Again, in 1922, there was further importation of nuts from Panama. Over the years, multipurpose variety trials have yielded useful data on windstorm damage. Following a hurricane in 1944, it was reported that 60% of 30,560 Jamaica Talls were destroyed compared with only 6% of 5120 Panama Talls (Harries 1975). In Panama, a Coconut disease of great concern is Porroca or little leaf disease. The disease recently entered an epidemic phase, spreading along the Caribbean coast and extending inland 40 km west of the Panama Canal (Gilbert and Parker 2001).

References

- Zizumbo D, Quero HJ. 1998. Re-evaluation of early observations on coconut in the New World. *Econ. Bot.* 52:68-77.
- Gilbert GS, Parker IM. 2001. Islands and connectivity in an epidemic of an invasive palm disease in Kuna Yala, Panama. Paper presented at the 15th Annual Meeting of the Society for Conservation Biology, July 29-August 1, 2001, Panama.
- Harries HC. 1971. Coconut varieties of America. *Oléagineux* 26:235-242.

Panama Tall (PNT)

Ratnambal MJ, Niral V, Krishnan M

Conservation

Panama Tall (PNT) is conserved at the Central Plantation Crops Research Institute (CPCRI) in Kasaragod (Kerala), India. There are seven recorded accessions of this variety, located at five conservation sites in India, Brazil, Tanzania, Nigeria and the Côte d'Ivoire.

History

Panama Tall was introduced to the germplasm collection at CPCRI from Panama in 1956. It is one of two distinct Tall cultivars observed in Panama. PNT is present on the Pacific coast of Central and South American countries. PNT resembles varieties of South East Asia regarding fruit appearance and composition. Based on historical evidence, it is possible that PNT was introduced into the Caribbean Islands from the Philippines in the 16th century. Recent studies, using RFLP markers, also indicate the possibility of PNT being derived from Southeast Asian Tall.

Identification

Panama Tall is a robust and medium-statured palm attaining a height of 6 m at 22 years. The average stem girth is 93 cm. It has a medium-sized bole. The palm carries about 34 leaves on the circular crown. The leaves are long with strong petioles; the 122 leaflets closely arranged in the leaf. The leaflets are medium-sized and rather broad. The palm starts flowering seven years after planting. Inflorescences are long with very strong and thick peduncles. The inflorescence bears about 34-42 long spikelets. The average number of female flowers in an inflorescence is around 29, with 31% fruit set. Cross-pollination is observed due to non-overlapping of male and female phases in a spadix. The male phase lasts for 19 days and the female phase, four days. However, inter-spadix overlapping of male and female phases is observed to some extent. The fruits are large, spherical and greenish-yellow. The nut with a thick shell is almost round, flatter at the base and contains a thick kernel.

Yield and production

Panama Tall starts yielding at the age of 8.5 years. The palm is a regular bearer and produces 8-10 bunches per year, yielding 82 fruits per palm annually. The fruits are large with 32% husk to whole fruit weight. The average weight of the nut without husk is 787g. The average copra content is 238g per nut with 64% oil content. The estimated annual yield of copra and oil under rain-fed conditions is 3.4 t per ha and 2.2 t per ha, respectively. A wide variation in the annual nut yield, from 26-144 fruits per palm, has been recorded, with the average husked nut weighing 912g (42% husk). Harries (1971) reported the average fruit weight in Jamaica to be 2.1 kg.

Other information

Panama Tall cultivar is moderately resistant to lethal yellowing in Florida. Its hybrid MAYPAN (MYD x PNT) is 86% resistant to the disease. Natural symptom remission of lethal yellowing disease was observed in some trees of the Panama Tall and Jamaica Tall hybrid. The quality of tender nut water is good, making the variety suitable for commercial exploitation for tender nuts. It is also a good copra yielder and can be used for commercial production. In India, PNT has been evaluated for yield and fruit characteristics in germplasm trials at CPCRI, but has not been included in the crop improvement programme.

References

- Donselman HM. 1979. Palms resistant to lethal yellowing for Florida. *Proceedings of the Florida State Horticultural Society* 91:99-101.
- Harries HC. 1971. Coconut varieties of America. *Oléagineux* 26:235-242.
- Ratnambal MJ, Niral V, Krishnan M, Ravi Kumar N. 2000. *Coconut Descriptors Part II*, Central Plantation Crops Research Institute, Kasaragod, India.

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