

Thailand

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The Kingdom of Thailand is a country of Southeast Asia, bordered to the north by Laos and Myanmar, to the east by Laos and Cambodia, to the south by the Gulf of Thailand and Malaysia, and to the west by the Andaman Sea and Myanmar. Thailand has a population of about 63 million people and a surface area of approximately 513,000 km².

Coconut is an important subsistence crop in Thailand. Over 200,000 farm families are directly or partially dependent on the coconut industry for their livelihood. The total area under coconut is about 376,000 ha, which are predominantly planted with local Talls even though high yielding coconut varieties have been released to farmers since 1982. Coconut research in Thailand started in 1960 with the establishment of the Sawi Horticultural Experiment Station in Amphoe Sawi, Chumphon Province, and later renamed Chumphon Horticultural Research Centre (CHRC). This is the main Thailand's coconut research centre (Carpio et al. 2005) where over 50 coconut accessions are conserved, including local and exotic varieties. The first hybrid experiment was set up in 1975. The hybrids performed very well under local conditions and a coconut seedgarden was established simultaneously to keep pace with the demand for planting materials.

In the 2000's, a survey was conducted in 10 young tender coconut growing provinces with the aim of collecting germplasm with diversified characteristics. During the survey, it was found that two groups of the Green Dwarfs, Aromatic coconut (Nam Hom) and Sweet water coconut (Nam Wan), were widely grown on a commercial scale.

References

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Aromatic Green Dwarf (AROD)

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Conservation

According to the 2002 Coconut GR Database, the Aromatic Green Dwarf (AROD) is represented by 12 accessions with 1025 living palms in the collections of Thailand, Côte d'Ivoire, Malaysia, Philippines, and Vanuatu.

History

Mr DG Cendaña, a professor of the College of Agriculture at the University of the Philippines at Los Baños (UPLB-CA), Laguna, first introduced the variety from Thailand to the Philippines in 1956. He planted two seedlings of the Aromatic Green Dwarf variety around the family's residence. These two palms became the progenitors of the AROD palms that were established at Davao Research Centre (DRC) in 1973. Out of the 85 seednuts grown, only 48 palms turned true-to-type, i.e. dwarf, small nuts, deep green, narrow-short leaflets. It bears young nuts with uniquely sweet water and the endosperm bears a distinctive nutty flavour. These characters are apparently controlled by recessive genes as they are lost in the hybridized state. These AROD palms became the source of planting materials at the above mentioned conservation sites in the Philippines. Around 385 AROD palms were planted at the field genebank in Zamboanga from January 1979 to July 2005 with 186 trees on various bearing stages.

Identification

The leaves of Aromatic Green Dwarf are short with wide leaflets; male flowers are numerous and small; immature nuts are deep green when immature; with sweet meat and water. The palms have short and thin stem, which grows less than 20 cm per year. The fronds are generally short, erect, and very deep green with equally short, wide overlapping leaflets. The bunch is borne on a short peduncle with small nuts attached on its short spikelets. The inflorescence is also short with the bunch held close to the centre of the crown. The AROD variety comes in two forms; one that smells like "pandan" hence called "pandan" while the other is just basically sweet. The endosperm of the mature nut of the "sweet AROD" is characteristically thin, smooth and endowed with a navel-like protrusion that covers the embryo. AROD is notably a late germinating Dwarf variety, bears fruits in 3-4 years, and with closely spaced leaf scars.

Yield and production

In terms of whole nut, the fruit size of Aromatic Green Dwarf is relatively bigger than the Pilipog Green Dwarf (PILD). Its meat weight (201g) and copra per nut (119g) remains significantly lower than most other Dwarfs. Moreover, average number of nuts per palm is about 93 at the adult age. This character contributed to its average copra per hectare of around two tons, but this cultivar is mainly used for drinking nuts.

Other information

Through the years, AROD has been known, and has become popular for its young tender nuts having sweet water and meat. The development of the variety for this purpose presents tremendous economic opportunities for farmers whose farms are close to urban centres, transit spots and resorts. This variety is registered with the National Seed Industry Council of the Department of Agriculture (DA-NSIC) for commercial young tender coconut production. In the Philippines, AROD is known to withstand infestations of the common coconut pests, e.g. slug caterpillars, *Oryctes*, and diseases like gray leaf spot caused by *Pestalozzia palmarum*, brown leaf spot caused by *Helminthosporium* sp., bud rot, etc. It is however, moderately susceptible to mites *Oligonychus velascoi* Rimando

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