

Mozambique

Genebank

No Coconut genebank in Mozambique

Contact

Country not member of COGENT
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The Republic of Mozambique is a country in southeastern Africa bordered by the Indian Ocean to the east, Tanzania to the north, Malawi and Zambia to the northwest, Zimbabwe to the west and Swaziland and South Africa to the southwest.

Coconut in Mozambique is mostly grown along the coast. Coconut production is mainly a family based enterprise with more than 60% of the stands located in small landholdings. It is estimated that about 14% of the Mozambican population depends on the crop as their main source of income and nutrition or food. The country's total production is about 60 000 tonnes of copra-equivalent, of which 50% is consumed locally. Revenue from coconut exports was about US\$ 10 million annually in 2004 (Cumbi 2005). Coconut production in Mozambique is mainly affected by the following: lack of improved germplasm; high incidence of pests and disease, particularly the lethal yellowing disease (LYD). Outbreaks of this disease now threaten the industry and the livelihood of over 1.7 million people in Zambézia and Nampula Provinces.

The extent of coconut germplasm diversity in Mozambique has not yet been fully investigated. Most of the local cultivars are of Tall types that fall under the general category of Mozambican Tall. Therefore, there is an urgent need to characterize and conserve the country's local germplasm. Some germplasm was introduced into the country in the early 1980's by the Madal Company in Zambezia Province. Some of the introduced varieties included Brazilian Green Dwarf, Brazilian Yellow Dwarf, Malaysian Red Dwarf and Malaysian Yellow Dwarf. These materials were used in the production of hybrids by the Madal Company, primarily for new plantings and rehabilitation of old stands. Mozambique has yet to have a national coconut research programme.

In the framework of the Millennium Challenge Corporation, the « Farmer Income Support Project » with a budget of US\$17.4 millions, was developed in order to reduce the spread of LYD, to improve productivity of coconut products, and to encourage diversification into other cash crop production. This project will eliminate biological and technical barriers that hinder economic growth among farms and targeted enterprises while supporting diversification into other cash crops and improved farming practices to assist smallholders and producers recover lost income. In conjunction with tree removal and replacement, this activity will assist farmers in adopting new cropping systems and developing alternative sources of cash income during the time required for new coconut trees to reach productive age. This component will also provide technical support to introduce better practices aimed at increasing crop yields.

Reference

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Mozambique Tall (MZT)

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Conservation

Mozambique Tall (MZT) can be found in Mozambique, but up to 2009, there was no recorded coconut germplasm bank in this country, where the lethal yellowing disease is quite active. The only other country where MTZ can be found is Côte d'Ivoire, where 147 palms have been planted in 1981 from the rejuvenation of an older accession surveyed in Mozambique.

History

Coconut contributes directly or indirectly to the subsistence of a great number of smallholders in Mozambique. The coconuts grow along the coastal areas but the main area dedicated to this crop is between the river Zambeze and Lighonha. In the 1950s, the organization of coconut groves was based on four plantations which occupied about 50 000 ha. In 1958, Carvalho Mendez reported for the first time the occurrence of an unknown disease of coconut in northern Mozambique. In 1999, this disease, identified as lethal yellowing, was confined in the Cabo Delgado province. In 2002, it remains only in one big plantation, the Sociedad Agricola da Madal, which has about 23 000 ha.

Identification

According to Harries (1978), the coconut palm was introduced from Mozambique to Cape Verde Islands and West Africa by Portuguese sailors, at the beginning of the 16th century. However, the MZT conserved in the Côte d'Ivoire germplasm bank is significantly different from the West African Tall type. Its stem is more bulky, its flowering is slower, its fruits are more round-shaped. The MZT looks quite similar to some Asian coconuts, while the West African Tall seems closely related to Indian types. Anyway, there exist various types of coconut in Mozambique. A systematic survey of coconut cultivars needs to be conducted in this country. Fruits are oblong to round-shaped, quite variable in shape and size, and weigh 1000-1200g. The equatorial section is often triangular. Fruits have a high husk ratio (37 to 44%) and low free water content. The nuts are almost round, sometimes wider than longer, and weigh 600 to 650g. Copra is very rich in oil (69%).

Yield and production

In the Côte d'Ivoire germplasm bank, Mozambique Tall flowers 63 months after field planting, which is 5 months later than the West African Tall. MZT produces 60 to 70 fruits per palm per year, and about 1.7 t of copra per ha per year.

Other information

Despite the recent decrease in production, Mozambique remains the largest producer of copra in Africa. Coconut palms cover a surface of about 100 000 ha, which produce an average of 600-700 kg of copra per ha. Almost all the planting material is Mozambique Tall. With the support of CIRAD, hybrids between Malayan Dwarfs and MZT have been planted, representing 4 to 6% of the total area of coconut plantations. In Côte d'Ivoire, MZT was crossed with seven other Tall varieties. The performances of these crosses are generally lower than the equivalent progenies using the West African Tall as parental material. In Jamaica, the pollen of MZT has been crossed with the Malayan Yellow Dwarf and six other Tall varieties as female parents. These experimental hybrids are all quite sensitive to lethal yellowing disease with mortality ranging from 30 to 53%.

References

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Harries HC. 1978. Evolution, dissemination and classification of *Cocos nucifera* L. Botanical Review: 44:265-320.

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