

Laccadive Micro Tall (LMT) in Côte d'Ivoire

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Conservation

Laccadive Micro Tall (LMT) is represented by 4 accessions totalling 332 living palms in the collections of Côte d'Ivoire, India and Tanzania. It was sent from India to Côte d'Ivoire in 1977, then from Côte d'Ivoire to Tanzania in 1989.

History

The terms 'Laccadives', 'Laquedive' and 'Lakshadweep' refer to the same Indian archipelago. It is located in the Sea of Oman, about 100 km west of the mainland, and comprises 27 coral islands. The Laccadive Micro Tall is one of a few Tall coconut varieties that produce a large number of tiny fruits. Palms of this type seem to be very infrequent in the archipelago, and dispersed among 'ordinary' coconut plantations with fewer, larger fruits. All these 'micro' and 'ordinary' palms cross with each other naturally. An Indian researcher suggested that there might be possible intermediate stages between the 'micro' and 'ordinary' types within the natural population. Observations in Africa suggest a different explanation. In fact, some previously 'ordinary' palms start producing many tiny fruits for a few months, and then resume their normal behaviour. For instance, in Côte d'Ivoire, a coconut palm of this variety produced fruits weighing from 203-1100g, depending on the period. The fewer the fruits, the larger they are. The same coconut palm could therefore be successively of the 'micro' and 'ordinary' type.

Identification

The abundance and small size of the fruits are the main criteria for recognizing this Indian variety. The inflorescences are also special: they bear a large number of thin spikelets, which bend substantially on opening, whilst the petiole remains straight. In the Pacific Ocean, particularly in the Fiji and Tuvalu islands, other Tall varieties also give a large number of small fruits. The elongated fruits vary in colour and have a tough epidermis. They vary considerably in weight, reaching 562g on average, in both India and Côte d'Ivoire. The bigger the fruit, the more oval the inner nut becomes; in the smallest fruits it is perfectly round. The nut contains small amount of water and weighs 156 to 184g on average. The kernel gives thick, oil-rich copra.

Yield and production

This variety produced flowers 5.5 years after planting in Côte d'Ivoire and 2.5 years later in its country of origin. In India, production only began at nine years; depending on the years, LMT produces 90-320 fruits per palm per year. In Côte d'Ivoire, production begins at six years, with 42 fruits per palm per year; it reaches 120 fruits per palm by the seventh year, fluctuating between those limits thereafter.

Other information

The small fruits of this variety are traditionally used to make 'ball copra'. Once the husk has been removed, the nuts are placed to dry, usually on the roofs of houses. A year later, the kernel has dried without rotting. The white meat takes on a slightly translucent appearance and becomes rubbery, sweet and scented.

References

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Laccadive Micro Tall (LMT)



Laccadive Micro Tall (LMT) in India

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Conservation

Laccadive Micro Tall (LMT) is conserved at the Central Plantation Crops Research Institute in Kasaragod (Kerala), India.

History

Laccadive Micro Tall was introduced from the Laccadive Islands to the Indian mainland in 1940. This cultivar was planted in a replicated trial in 1972 at Kasaragod. About 90 seedlings were planted in 1997 at the International Coconut Genebank for South Asia. It was exported to Marc Delorme Station, Côte d'Ivoire in 1978. LMT is found, though sparsely distributed, in Androth, Amini, Agathi, Kadmat, Kavaratty, Kiltau, Kalpeni and Minicot Islands of Lakshadweep. LMT palms are distributed among the dominant Laccadive Ordinary palms, which are also freely outcrossing, resulting in intermixed forms.

Identification

This is a profusely bearing Tall cultivar. The stem girth at 1 m height is 8.3 cm. The palm has a distinct bole. The leaf petiole is long with 232 leaflets, which are 121cm long and 6 cm wide. The palm produces 12 inflorescences in a year. The bunches are heavy with a large number of small and closely packed nuts. The nut is oblong in shape; its colour varies from green to different shades of brown. The occurrence of barren nuts is a character usually associated with this cultivar.

Yield and production

Fruit production generally begins 9 to 10 years after planting. The mean annual bunch production is 11, with a range of 8-12. The average annual yield varies from 100 to 320 fruits per palm in Kasaragod; an average of 106 nuts in Ratnagiri (Maharashtra) and 93 fruits per palm in Veppamkulam (Tamil Nadu). Although the nuts are small, the kernel is thick with an average copra content of 90g, with a range of 80-100g per nut. The oil content in copra is 75%, the highest recorded among the cultivars studied so far.

Other information

This variety is sensitive to drought, root (wilt) disease of Kerala and to stem bleeding disease caused by *Thielaviopsis paradoxa*. The nuts of Laccadive Micro Tall are ideally suited for the production of ball copra which is considered a special grade of copra and fetches a high price in the market. The kernel is mainly used for sweets and confectionary. Due to its high oil content, LMT can be exploited in breeding programmes. This cultivar is being used for the production of Tall x Tall crosses at CPCRI, Kasaragod. At Marc Delorme Station, Côte d'Ivoire, LMT is also crossed with MYD, MRD and CRD, EGD and TAC for the production of Tall x Dwarf hybrids.

References

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Laccadive Micro Tall (LMT)



Laccadive Ordinary Tall (LCT) in Côte d'Ivoire

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Conservation

Laccadive Ordinary Tall (LCT) is represented by 5 accessions totalling 3770 living palms in the collections of 4 countries. It was sent from the Laccadive Islands to Côte d'Ivoire in 1976, and then it was reproduced and sent from Côte d'Ivoire to Tanzania and Ghana.

History

According to John and Satyabalan (1955), a collection of the main coconut varieties of the Laccadive Islands was established in the 1930s and the seedlings were planted at the Coconut Research Station at Pilicode in South Kanara District of Madras State, India. Progenies of these palms were subsequently planted in 1940 at the Central Coconut Research Station, Kasaragod. The terms 'Laccadives', 'Laquedives' and 'Lakshadweep' refer to the same Indian archipelago, located in the Sea of Oman, about 100 km from the mainland.

Identification

Within Laccadive Ordinary Tall plantations, some palms bearing many tiny fruits are known as Laccadive Micro Tall. These Ordinary and Micro palms naturally cross with each other. In fact, it seems that previously ordinary palms sometimes start producing a multitude of tiny fruits for a few months, and then resume their normal behaviour. The same coconut palm may therefore be successively of the micro and ordinary type. However, not all the coconut palms in the Laccadive Islands may behave in such a strange manner. The palm reaches around 11.6 m in height on the 30th year. The girth of the stem 1 m above the ground measures 80 cm. There are around 32 leaf scars over a 1 m length of stem. The palm produces an average of 14 fronds per year with a short, strong petiole 94 cm in length. There are about 208 leaflets per frond. Fruit colour varies from greenish yellow to brown. The fruits are oblong in shape, medium-sized, with three prominent ridges on the triangular nut. They weigh 670 to 720g in Côte d'Ivoire and India, respectively. Inside, the oval-shaped nuts weigh 370-440g. The 210-270g kernel gives 130-180g of thick, oil-rich copra.

Yield and production

Flowering starts about 4-5 years after planting. The average annual yield at Kasaragod is 100 fruits, ranging from 82 to 178 fruits per palm. Palms produce 3 t of copra annually, and 2.1 t of oil per ha. In Ratnagiri (Maharashtra), the average yield is 147 fruits per palm with 20.5 kg of copra (63.6% more than the local Tall variety); Under irrigated conditions, yields may exceed 200 fruits, depending on soil fertility. In Côte d'Ivoire, it produces 74 fruits per palm per year and around 1.3 t of copra per ha.

Other information

In 1976, a new Coconut Research Station was established in the centre of Minicoy Island, the second largest island in Lakshadweep. The Laccadive Ordinary Tall is also known as 'chandrakalpa' by Indian farmers. LCT is widely used in breeding work as a Tall parent. It is used for the production of hybrids, namely the 'Chandralaksha' (crossed with Chowgat Orange Dwarf). These hybrids yield better than either of the parents. Moreover, these hybrids are also found to be drought-tolerant.

Reference

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Laccadive Ordinary Tall (LCT)

