Cameroon Red Dwarf (CRD) in Côte d'Ivoire

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Conservation

Cameroon Red Dwarf (CRD) is conserved in the germplasm centres of at least 12 countries, from Brazil to Vanuatu, representing 22 accessions and totalling more than 5000 palms.

History

CRD was collected in the region of Kribi, Cameroon in 1955. People remember that it was introduced in Africa by American priests, but nobody knows from which country. Its origin is probably the Pacific Ocean region, based on recent molecular biology studies.

Identification

CRD palms generally have a very thin stem, about 20 cm diameter in Côte d'Ivoire, with no bole. Quite often, the stem is narrower at the base than at the upper part. But when the growing conditions are ideal, it may develop a little bole (about 30 cm diameter in the rich soil of Vanuatu islands). The youngest leaves at the top of the palm are erect and straight, very different from those of the Malayan Dwarf types. The peduncles of the bunch are quite long, and sometimes very heavy bunches may abort before full maturity. The reproductive system has been described as direct autogamy. Characterization data can be found for at least seven countries: Brazil, Côte d'Ivoire, India, Malaysia, Philippines, Tanzania, and Vanuatu. CRD is the palest of all the Red Dwarfs described in this catalogue. Its colour is generally closer to yellow-orange than a true red. This colour, however, is not very stable. It may change according to mineral nutrition or light intensity. Sometimes, within the same palm, colours of fruits from different bunches can range from intense orange to almost yellow. It is quite easy to distinguish the CRD from the Malayan Red Dwarf and other related Dwarfs. Its colour is paler, its fruits are pear-shaped, its bunches have longer peduncles, and its top leaves are more erect. Most of the other Red Dwarfs from Papua New Guinea and the Pacific Ocean region show a darker orange-red colour. DNA molecular studies have shown that the CRD and the Pemba Red Dwarf from Tanzania are probably identical. In the Comoro archipelago near Madagascar, the Red Dwarfs locally called 'mrasi' look also very similar to the CRD.

Yield and production

CRD produces medium-sized fruits of excellent composition and thin husk. The average fruit weight ranges from 447g (in Malaysia, dry zone) to 945g (in India). Inside the fruits, the nuts are spherical and weigh from 283-657g depending upon the country. In good field conditions, CRD starts to flower 2-3 years after field planting. It produces 50-90 fruits per palm per year without irrigation. CRD is mainly an ornamental palm, planted in gardens and cities. Water from young nuts is sweet and tasty. As with most of the Dwarfs, CRD is sensitive to drought and is subject to alternate bearing.

Other information

CRD is sensitive to the fruit attacks by weevil of the genus *Pseudotheraptus*. CRD was used in breeding as female parent for testing and producing hybrids in Africa. The hybrid between CRD and the West African Tall is very productive but quite sensitive to weevil attacks. The cross between CRD and the improved Rennell Island Tall (RIT) has been released to farmers by the Marc Delorme Research Station in Côte d'Ivoire.

Reference

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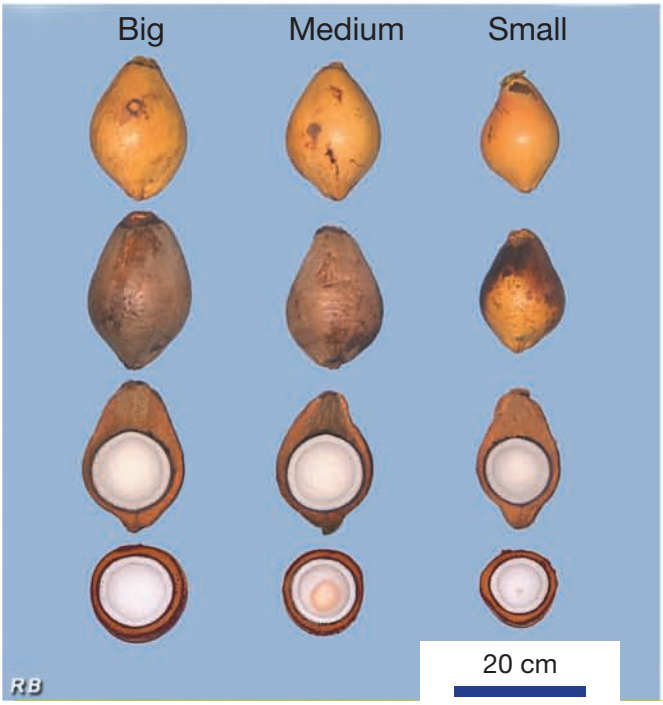
Cameroon Red Dwarf (CRD)

photographed in Côte d'Ivoire



Cameroon Red Dwarf (CRD) in India

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Conservation

Cameroon Red Dwarf (CRD) is conserved at the Central Plantation Crops Research Institute (CPCRI) in Kasaragod (Kerala), India. It is available in 13 different germplasm banks and is represented by 22 accessions in the Coconut Genetic Resources Database.

History

CRD was introduced to the germplasm collection at CPCRI from Côte d'Ivoire in 1977. This variety was described as a Dwarf characterized by a slender stem, long leaves and long rachis and pear-shaped, pyriform nuts. The nuts contain about 180g of copra with an oil content of 68.5%. There are similarities between CRD in Côte d'Ivoire and the Pemba Red Dwarf in Tanzania.

Identification

CRD is a short-statured cultivar attaining a height of 4.4 m 18 years after planting. The palm does not possess a bole and the stem is not very slender with a girth of about 76 cm. The crown is circular in appearance and contains about 34 leaves. The internodal length is very short and the length of 10 internodes is 25.3 cm. The leaves are medium-sized, with short and broad leaflets. The palm starts flowering after six years of age. The inflorescences are short with strong peduncles and a longer spikelet-bearing portion. The inflorescence contains about 35 spikelets. The spikelets are medium–sized and contain an average of 0.9 female flowers per spikelet. The number of female flowers in an inflorescence is about 29. Fruit setting is around 26.7%. Pollination is by direct autogamy, as complete overlapping of the male and female phases is observed in a spadix. The yellowish red, medium-sized fruits are oval in shape with a pointed apical end. The nut inside is also oval and medium-sized with a strong shell and thick kernel.

Yield and production

This variety starts fruiting at about seven and half years of age. The palm is not a regular bearer and produces good yields in alternate years. Generally, about 10 bunches are produced in a year. The average nut yield is 80 fruits per palm per year. The fruit weighs about 945g, with a smaller percentage of husk to whole fruit weight (27.8%). The nut without the husk weighs about 657g and produces nearly 220g copra per nut. The oil yield is 64%. The estimated yield of copra and oil under rain-fed conditions is 3.1 t per ha per year and 2 t per ha per year, respectively.

Other information

This variety is susceptible to drought, although the hybrid CRD x WAT (PB111) is slightly better adapted than the parents. It has been evaluated in the germplasm trials at CPCRI. CRD is being used in the CPCRI breeding programme for evaluation of new Dwarf x Dwarf hybrids for high yield, precocity and tender nut quality.

References

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Cameroon Red Dwarf (CRD)

photographed in Côte d'Ivoire