The Republic of the Marshall Islands (RMI) is a Micronesian nation consisting of 29 atolls each made up of many islets and 5 islands in the central Pacific located 4 to 14°N and 160 to 173°E. The atolls and islands are situated in two parallel chain-like formations known as the Ratak (Sunrise or eastern) group and the Ralik (Sunset or western) group. The total number of islands and islets in the whole Republic is approximately 1225 spreading across a sea area of over 2 million km². The total land area is about 181 km². The mean height of land is about 2 m above sea level. In 2003, the population of RMI was estimated at 56,429 inhabitants.

In RMI, there are no commercial coconut plantations and all coconut land is managed by smallholders, whose land areas vary from 0.8 to 6 ha. Various consultants estimate that 90% of land is under coconut in the outer islands and about 25% for the Majuro and Kwajalein atolls. The coconut is primarily a subsistence crop managed by family members. After meeting the domestic needs, the surplus is converted to copra and marketed for cash income. The other significant crops are breadfruit, pandanus, pumpkins and cabbages and small amounts of bananas. Coconut is very much a part of Marshallese culture and has several uses, of which the main ones are drinking nuts, cooking nuts, domestic fuel, toddy/sap of the unopened spathe (flower), syrup, sugar, vinegar, roof-thatching, baskets, and handicraft material.

The varieties of coconuts in RMI are mainly Tall with few Dwarfs planted close to dwellings. In 1960’s a Tall variety with large nuts from Yap State was introduced into a few areas. The Dwarf is used for drinking and for tapping sap/toddy (locally called jekaro). The Dwarf variety is not suitable for copra.

Coconuts are by far the most important cash crop and have sustained the economy for more than a century. The contribution of copra, however, varied enormously from atoll to atoll. The average production is 6698 tons of copra which is 47% of the potential of 14 287 tons. Copra production fluctuates due to variations in weather as well as copra prices.

From 1885 to 1979 when Tobolar Copra Processing Company was set up, copra continued to be the major export earner. Since 1979, coconut oil and copra cake resulting from copra processing became the major export earner.

Reference
Marshall Islands Green Dwarf (MIGD)

Labouisse JP, Bourdeix R Sileye T

Conservation

Marshall Islands Green Dwarf (MIGD) is conserved in the Vanuatu Agricultural Research and Training Centre (VARTC) genebank (87 trees) and in a plot of the Agriculture Department near the capital of the Republic of Kiribati on Tarawa atoll.

History

Although originating from the Marshall Islands, this variety was collected in Kiribati. The Republic of Kiribati is made up of 33 islands divided in 3 main groups (Gilbert, Phoenix and Line Islands) scattered over more than 5 million km² in the Central Pacific Ocean. The Gilbert archipelago consists of a group of 16 islands scattered on both side of equator between the 172nd and the 176th parallels. Butaritari is an atoll, made up of a number of islets totalling 12 km² of land, located in the north of Gilbert Group. In Butaritari, this Green Dwarf is called “te nii ni Matiare” which means “coconut of Marshall Islands”. This coconut originates from the Marshall Islands, located 400 km north of Butaritari where it is often found in backyards. In this country it is called “ni maroro kadru”. From the Marshall Islands, this cultivar has been widely spread in other Micronesian countries such as Tuvalu where it is called “niu masela”.

Thirty fruits of Kiribati Green Dwarf were collected in 1990 in Butaritari and sent to Saraoutou Research Station, Vanuatu. The seedlings were planted in May 1991. After flowering, they were crossed in 1995 and the progeny established in the genebank in October 1997.

Identification

In the rich volcanic soils of Vanuatu, the shiny green fruits are elongated and often with one or two constrictions up or down the middle of the fruit. Nuts are round or sometimes elongated. In Vanuatu, the whole fruit weighs 828g. The weight of the fruit components are: husk (249g), water (151g), shell (129g) and meat (299g). In the coral soils of Tuvalu, fruits are smaller and more elongated (see the oval picture taken in Tuvalu); they look like the fruits of the Sri Lanka Green Dwarf (PGD) planted in poor sandy soils of Côte d’Ivoire. Molecular analysis with 14 SSR markers showed no genetic difference between MIGD and PGD. An introduction from Sri Lanka to Marshall Islands or from Marshall Island to Sri Lanka during the colonial time is possible but not proven.

Yield and production

In Vanuatu genebank, MIGD starts to bear flowers 30 months after planting. Production is 61 fruits per palm per year with 238g of copra per nut i.e 14.5 kg copra per palm per year.

Other information

The water of the nut is particularly sweet and Marshall Islands Green Dwarf is mainly cultivated near the houses for use as tender coconut or for making toddy that is the fermented sap collected from immature inflorescence. In Tuvalu, people say: “Using this variety even an old man can make its own toddy” (no need for him to climb the coconut).

References


Marshall Islands Green Dwarf (MIGD)

Big  Medium  Small

20 cm