Indonesia comprises 17,508 islands with an estimated population of around 237 million people. The country shares land borders with Papua New Guinea, East Timor and Malaysia. Indonesia is the world’s largest producer of coconut (producing 17 million tons (FAOSTATS 2007) and thus considers the crop as a national strategic commodity.

Research on coconut palms was initiated during the Dutch colonial period and formal research institutionally started in 1911. This involved collecting some coconut ecotypes in the surrounding areas of Java. From 1926 to 1927, Dr Tammes, a coconut scientist, identified and selected 100 high-yielding Tall palms from populations in the Mapanget District of North Sulawesi. These palms were planted at the Mapanget Experimental Garden of the Indonesia Coconut and Other Palmae Research Institute (ICOPRI). After Indonesia gained independence in 1945, coconut research activities were maintained by the government.

The International Coconut Genebank for Southeast and East Asia (ICG-SEEA) is hosted by the Indonesian Agency for Agricultural Research and Development (AARD) using the field genebank in Pekanbaru, Riau Province and experimental gardens in Manado, North Sulawesi. In July 1995, a COGENT Task Force evaluated the proposed site at Sikijang Mati, Pekanbaru, Riau Province in Central Sumatra. The Task Force found it generally suitable and made some suggestions for its improvement. Due to the financial crisis in 1997 and the resulting lack of government budget, the Sikijang area was developed too slowly and the remaining areas were squatted by surrounding inhabitants and migrants. Two extension ICG areas have therefore been identified: the Paniki Experimental Garden (100 ha) located beside ICOPRI office in Manado, and the Pandu Experimental Garden (80 ha) which is about 18 km from the ICOPRI office and belongs to the Balai Pengkajian Teknologi Pertanian (BPTP).

References

Borneo Tall (BONT)

*Ratnam-bal MJ, Kumaran PM, Bashkara Rao EVV, Pillai RV*

**Conservation**

Borneo Tall (BONT) is conserved at the Central Plantation Crops Research Institute (CPCRI) in Kasaragod (Kerala) and at research stations in Konark (Orissa), Ratnagiri (Maharashtra) and Mondouri (West Bengal), India.

**History**

The variety Borneo Tall was introduced to India in 1955 from Indonesia. Borneo Island is now known as Kalimantan Island. Open pollinated progenies from these palms were planted in 1974. Sub-samples of this variety are being maintained in Konark, Ratnagiri and Mondouri. *Inter se* population was planted in CPCRI in 1997. The fruits of this palm are large and round, the unhusked nut predominantly flat bottomed with a pointed posterior, characteristic of Bali Coconut. The best nuts were reported to have extremely high copra content (450g), whereas other sources mention copra content varying from 200 to 300g.

**Identification**

The palms are very tall, reaching 11.4 m height. It has a large number of leaves - nearly 40 at 40-45 years of age. The girth of the stem at 1 m height is 94 cm, much more than the local West Coast Tall which has 79 cm girth. There are 21 leaves produced in 1 m length of the stem; leaves are about 5.7 m long with 228 leaflets. The leaflets are long (125 cm) and are very broad (6.3 cm). Flowering starts 9-9.5 years after planting. The inflorescence is long (127 cm) with about 43 spikelets. The palms are mostly cross-pollinating as there is inter-spadix overlapping of about two days. The fruits are large and round to oval in shape with greenish yellow colour. The husked nut is flat bottomed with a pointed posterior. The kernel and shell are thick.

**Yield and production**

The palm starts fruiting 11 months after planting and produces 8-11 bunches per year. In Kasaragod, the average number of nuts produced is 34-65 per palm per year; in Konark, 29; in Mondouri, 58; and in Ratnagiri, 43 nuts. The fruits are heavy, averaging 1450g. The husked nut is also heavy (987g). The proportion of husk to whole fruit is 32% of total weight and copra yield is 243.8g with 63.8% oil. The palms yield 2.2 t of copra and 1.4 t of oil per ha.

**References**

CPCRI. 1999. All India Coordinated Research Project on Palms (AICRPP) Annual Report Kerala, India.


Borneo Tall (BONT)
Java Tall (JVT)
Ratnambal MJ, Kumaran PM, Bashkara Rao EVV, Pillai RV

Conservation
Java Tall (JVT) is conserved at the Central Plantation Crops Research Institute (CPCRI) in Kasaragod (Kerala) and at the research stations in Aliyarnagar and Vappankulam (Tamil Nadu), Ambajipeta (Andhra Pradesh), Jagadalpur (Madhya Pradesh), Konark (Orissa) and Mondouri (West Bengal) under the All India Coordinated Research Project on Palms.

History
Java Tall was introduced to India from Indonesia in 1947 and planted at Pilicode (Kerala). Open-pollinated progenies of this variety were planted at CPCRI, Kasaragod in 1956 and again in 1967. Java Tall subpopulations are being maintained at Aliyarnagar and Vappankulam, Ambajipeta, Jagadalpur, Konark and Mondouri.

Identification
The JVT palm grows up to 12-13 m in height, with 42 leaves on the crown and stem girth of 92 cm at 1 meter height of the stem. Leaves are long, about 5.7 m, with 220 leaflets. Leaflets are long (129 cm) and very broad (6 cm). Fruits are oval in shape and yellowish green in colour. The husked nuts are somewhat flat at the posterior end and pointed at the bottom. The husk is more towards the posterior. The fruits have a thick kernel.

Yield and production
The palm starts bearing 9-10 years after planting. It produces 103 fruits per year in Kasaragod; 77 nuts in Aliyarnagar; 54 nuts in Vappankulam and 54 nuts in Mondouri. In Kasaragod, the fruit weighs 1154g with 388g kernel weight. The copra content per nut is 216g with 66.5% oil. This accession yields 4.2 t copra and 2.8 t oil per ha.

Other information
JVT is tolerant to drought; sensitive to root (wilt) disease; susceptible to stem bleeding; tolerant to burrowing nematodes; and sensitive to Ganoderma/Tanjavur wilt. Due to its relative tolerance to stresses, this variety is being used for the production of Dwarf x Tall (MYD x JVT, COD x JVT, GBGD x JVT) hybrids.

References


Java Tall (JVT)