

Philippines

Genebank

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The Philippines are a country in Southeast Asia comprising 7107 islands in the western Pacific Ocean. It is the world's 12th most populous country, with a population of about 90 million people. There are more than 11 million overseas Filipinos worldwide, about 11% of the population. The Philippine's coconut area is estimated at 4.09 million ha, with most areas comprised of small landholdings with an average farm size of 3.6 ha.

Like other countries, Tall varieties dominate the areas planted to coconut (Carpio et al. 2005). The Philippine Coconut Authority (PCA) genebank in Zamboanga is considered to be one of the most important germplasm repositories of local and foreign coconut ecotypes in the world.

Currently, the Philippines have 224 coconut accessions listed in the CGRD of COGENT. The Research, Development and Extension Branch of the Philippine Coconut Authority (RDEB-PCA) reported that there are 16 coconut varieties registered with the Philippine National Seed Industry Council (NSIC), while there are 15 registered coconut hybrids. Eleven accessions are of foreign origin, such as the West African Tall (WAT), Rennel Island Tall (RIT), Gazelle Peninsula Tall (GPT), Markham Valley Tall (MVT), Vanuatu Tall (VTT), Karkar Tall (KKT), Malayan Red Dwarf (MRD), Malayan Yellow Dwarf (MYD), Equatorial Guinea Green Dwarf (EGD), Sri Lanka Green Dwarf (SGD) and Aromatic Green Dwarf (AROD). A recent addition to the PCA genebank is a rare coconut called 'Tutupaen' or 'Tupa', whose shell is so thick that it's almost as thick as its meat. Nuts from the 'Tutupaen' are not consumed due to superstitious belief that once eaten, the shell will become brittle. Debris from the 'Tupa' tree is also buried for the same reason (Calub 2002). *Cadang-cadang* is a fatal disease of coconut caused by a viroid and found mainly in the Bicol Peninsula, Masbate, Catanduanes, Samar and in isolated areas in Quezon. Economic losses arise from the cessation of nut production on diseased palms. The presence of the disease has also caused problems in international trade of coconut products from the Philippines

References

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Aguinaldo Tall (AGDT)

Rivera RL, Santos GA, Emmanuel EE, Rivera SM

Conservation

Aguinaldo Tall (AGDT) is conserved at the field genebanks at the Philippine Coconut Authority Zamboanga Research Centre in San Ramon, Zamboanga City where 99 seedlings were planted in 1983. A duplicate collection was also established in the Coconut Breeding Trials Unit in Mambusao, Capiz in Panay Island.

History

Aguinaldo Tall was collected from a farm in Aguinaldo, Naga, Zamboanga del Sur (now Zamboanga Sibugay). The progenitor palms have relatively close leaf scars and elongated fruit configuration. The palms were interplanted with rubber trees.

Identification

Considered a good nut yielder, the fruit of Aguinaldo Tall is characterized by multiple ridges encircling the nut which are more prominent towards the stem end. Fruit colour may be brown or green. The husked nut is almost round in shape. Spikelets range from 43 to 61 cm long. The long fronds with numerous leaflets (115 counted on one side of the leaf), contribute to the overall spherical appearance of the crown. The fronds have yellow/green petioles.

Yield and production

At 10-21 years this variety has an average whole fruit weight of 1428g of which the husk weighs 383g, the shell 276g and the meat 459g. It produces 87 fruits per palm per year and 276g copra per nut. It yields 3.3 t of copra per ha per year under suitable environmental conditions. The average number of bunches per year is 14. It has an average number of 51 female flowers in an inflorescence and a fruit set of 50 to 80 fruits per palm counting from fist-sized to mature fruits. Fruit length average is 24.4 cm while fruit width is 18.8 cm.

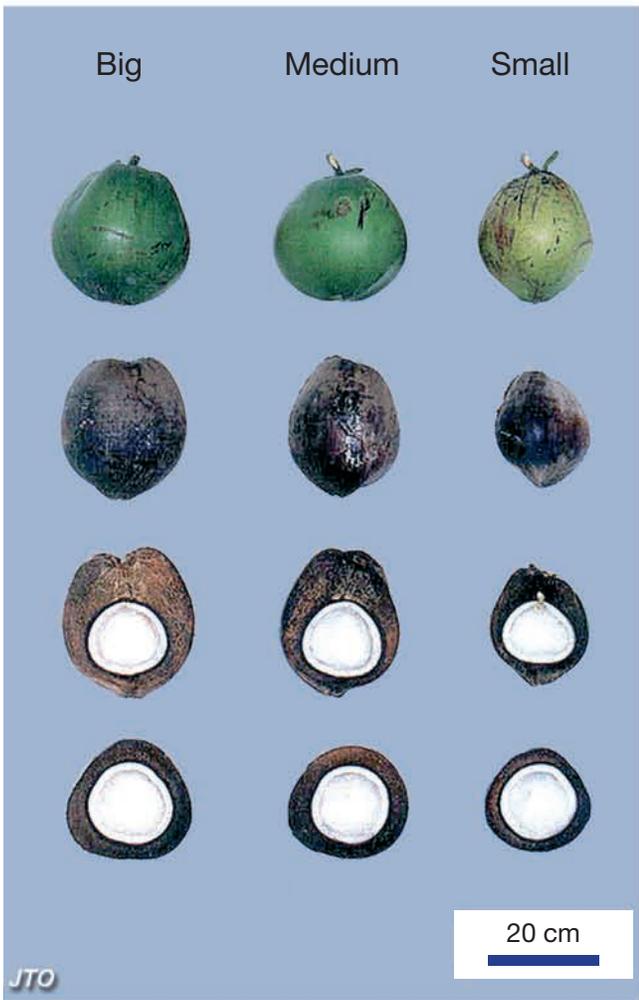
Other information

Aguinaldo Tall cultivar has shown good adaptability to the distinct wet and dry climatic condition of the Zamboanga Peninsula. This cultivar could be utilized as an alternative planting material for the current replanting programme in the Philippines considering its high copra yield and nut production as well as its adaptability to adverse climatic conditions. The potential of this cultivar as possible breeding material in the future is still being evaluated.

References

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Aguinaldo Tall (AGDT)



Antique Tall Mapatag (ANTT01)

Rivera RL, Santos GA, Emmanuel EE, Rivera SM

Conservation

Antique Tall Mapatag (ANTT01) is conserved at the field genebanks of the Philippine Coconut Authority (PCA) Zamboanga Research (ZRC) in San Ramon, Zamboanga City, at the Coconut Breeding Trials Unit in Mambusao, Capiz in Panay Island; and in farms in Mapatag, Hamtic, Antique, Philippines. The materials were planted at the field genebank at the PCA Zamboanga Research Centre in 1987.

History

Antique Tall Mapatag was collected in April 1983 from a 20-ha plantation in Mapatag, Hamtic, Antique. The palms were estimated to be 33 years old at the time of collection. The palms were located in areas at the foot of a hill and partly in the shoreline. Zero tillage was practiced for coconuts grown in the hilly portion while those planted in the shoreline are occasionally tilled. The water table within the plantation ranged from 3 to 6 m.

Identification

The crown shape is spherical to semi-spherical. The average girth at 20 cm above the ground is 200 cm and is 106 cm at 1.5 m above the ground. The average length of 11 leaf scars is 98 cm. The number of female flowers in an inflorescence is 36 on 46 spikelets in average. The petiole colour is green, while the fruit colour is either green or brown. Fruit shape in polar view is round to oblong while in equatorial view is either round or egg-shaped. Husked nut shape is almost round. Fruit set from fist-sized to mature fruits numbered from 20 to 80 fruits per palm.

Yield and production

Antique Tall Mapatag palms are estimated to start bearing at the age of six years. ANTT01 cultivar produces 11 bunches per palm per year and an average of 69 fruits per palm per year. Whole fruit weight is 1367g, with the husk weighing 386g; the shell, 253g; and the meat, 438g. The palms produce 9266 nuts per ha. The cultivar produced an average copra per nut weight of 277g and 2.6 t of copra per ha per year under fairly suitable environmental conditions.

References

Rivera RL, Rivera SM, Emmanuel EE. 2005. Compilation of fruit component characters and fruit and bunch return of coconut accessions at PCA ZRC field genebank II. Tall coconut accessions. Breeding and Genetics Division. PCA Zamboanga Research Centre, San Ramon, Zamboanga City, Philippines (Monographs).

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