commencement of flowering. The colour of the fruit is yellow, oval shape with a fruit length of 37cm and fruit breadth of 16.5cm. The tender nuts contained more sweet water ranging from 250 to 340ml per nut (Average 290ml) with average TSS of about 6.7º brix.

Cultivation Practices: The palms of Chowghat Yellow Dwarf can be grown with the regular recommended package of practices with summer irrigation for sustained yield. It can be grow in all coconut growing regions for conservation and further utilization.

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12. IND 221 – Andaman Horned Cocos (IC0598221; INGR13063), a Coconut (*Cocos nucifera*) Germplasm with Distinct Character of Horny Nuts

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Horned cocos is a unique coconut type developed through selection from the original population collected from Andaman islands during 1999 and conserved at National Gene Bank at CPCRI research centre, Karnataka. The palms in the gene bank were developed through the nuts collected from the original mother palms available at natural coconut populations of South Andaman district followed by seedling selection at CPCRI. After evaluation of the said accession for inheritance of the trait, the selection was made for the unique trait of presence of multiple ovaries female flowers which results in horn like structures over the matured coconut fruits. The trait is unique and not present in any other accession in the gene bank. The extent of genetic diversity in the accession was evaluated using 14 highly polymorphic microsatellite markers. The observed heterozygosity was 0.19, while the observed heterozygosity was 0.25. This indicated a tendency towards inbreeding within the population. It had a fixation index (FST) of 0.25 indicating a high level of genetic differentiation. It come handy as a marker in breeding programmes.

Morpho-agronomic Traits: Coconut produces female flowers with one ovary without any appendages over the set fruits. The candidate accession *viz*., Horned cocos produces female flowers with three or more divided part of ovary (multiple ovaries) which result in the horn like appendages over the fruits making it unique. The inheritance of the traits is also confirmed as the second generation palms at the field genebank of CPCRI also exhibited the trait. The original mother palms are identified with this unique trait among the natural coconut populations at South Andaman district collected during 1999. Subsequently the seedling progenies were planted and evaluated at National Field Gene Bank of coconut under CPCRI Research Centre, Kidu, Karnataka. Hence the performance is known at two locations i.e. Andaman and Karnataka

The number of fruits per bunch ranged from 10 to 21 in the initial years of flowering fruiting from 2009 to 2011. The palms belong to tall type of coconut with a stem girth of 85 cm at 1 m height and an average leaf length of 3.6 m at the age of nine. The bunch production is regular and ranged from 7 to 10 bunches per year after commencement of flowering. The setting percentage of fruit is about 30 percent. The colour of the fruit is green with oval shape. The husked fruit is round with a hard shell measuring an average of 4 mm thick. The cavity volume ranged from 120 to 140 ml.

Cultivation Practices: The palms of Horned cocos are normal in all other morphological traits similar to other coconut accessions. They can be grown with the regular recommended package of practices with summer irrigation for sustained yield. It can grow in all coconut growing regions.

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13. IND 331-Laccadive Mini Micro Tall (IC0598222; INGR13064), a Coconut (*Cocos nucifera*) Germplasm with Distinct Character of Extremely Small Nuts with Very Low Copra Content, not found in any other Coconut Variety

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Mini Micro Tall is a unique coconut type present in Minicoy Island of Lakshadweep, known for its smallest fruits. This unique type was collected through selection from the original coconut population of Minicoy Islands and conserved at National Gene Bank at CPCRI research centre, Karnataka. The palms in the gene bank were developed through embryo culture of nuts collected from the original mother palms available at CPCRI Regional station, Minicoy. The trait of smallest nuts in all bunches of the palms is unique and not present in any other accession in the gene bank. The nuts of this type do not germinate under natural conditions. The germplasm has academic and scientific value besides the potential for ornamental planting. This could be of interest to breeders trying to increase the number of nuts per bunch.

Morpho-agronomic Traits: This type is a tall coconut type with morphological traits similar to other coconut accessions but differing in the nut component traits. The female flowers develop into small fruits recording lower values for most nut component traits. The average fruit weight was about 31 g with copra content of 5 g. The accession was observed with lowest husk content also. The colour of the fruits in this accession is green or greenish brown with round shape. The kernel sometimes fills the entire cavity with the embryo completely embedded in the kernel. The cavity has very less water of about 1.1 ml and the copra has 73% oil.

Cultivation Practices: As the Mini Micro nuts do not germinate under natural conditions owing to the less nut water and quick drying of nuts, they need to be multiplied through embryo culture. The vegetative growth of Mini Micro Tall palms is normal with similar morphological traits compared to other coconut accessions. They can be grown with the regular recommended package of practices with summer irrigation.

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