

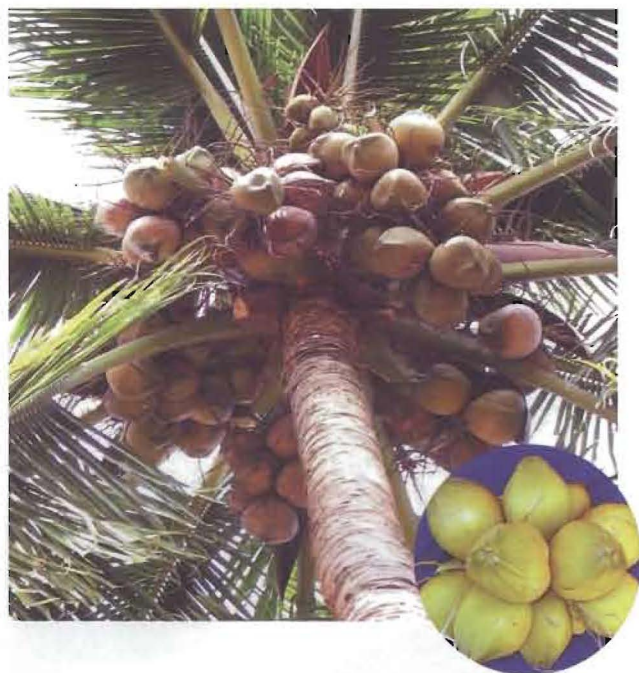
San Ramon, high copra yielding coconut variety of western ghats of Tamil Nadu

Subramanian, A., H. P. Maheswarappa and V. Sivakumar

AICRP on Palms, Coconut Research Station, Aliyarnagar, Tamil Nadu Agricultural University

Collection, conservation and utilization of plant genetic resources and their distribution are indispensable components of crop breeding programmes. Conservation of genetic diversity is crucial, because of the genetic erosion brought about through an array of causes including introduction of new coconut varieties, shift in farming systems and changing economic conditions. Being a perennial crop with a persistent capacity for sexual reproduction, coconut gene pools serve as a repository for conservation and development of new varieties. Global interests also heavily focus on the identification, collection and conservation of germplasm to safeguard the genetic diversity of the coconut palms grown in India. Field gene banks are the only viable option for ex-situ conservation of coconut largely due to recalcitrant nature of the coconut seed. With this background, under the All India Co-ordinated Research Project on Palms centre, Coconut Research Station, Aliyarnagar (Tamil Nadu Agricultural University) initiated an evaluation study of coconut germplasms during 1988. A total of 43 germplasms were planted in non-replicated trial in three sets.

Based on the evaluation studies of the germplasms, varieties have been recommended and released for cultivation based on the special traits of the cultivar. Long term study indicated that, among the germplasms, San Ramon is found to have higher copra content and tender nut quantity. The germplasm at the age of 29 years had grown to a height of 12.9 m with a girth of 108 cm and have the potential to produce 12 leaves per year. The nut is a very big size (3658 g weight) and dehusked nut weighs about 1856 g. The special character of this variety is higher copra content with 377 g/nut. In the foot hills of western ghats region of Tamil Nadu, data on nut yield for 9 years (2008 to 2016) indicated that,



on an average it produces 71 nuts per palm per year and with respect to copra out turn, it produces 26 kg/palm and it works out to 4.6 t/ha of coconut garden. The tender nut water quantity is 700 ml per nut with TSS of 6.1 oBrix, total sugar content of 5g/100ml, reducing sugar content of 3.5g/100 ml, amino acid content of 2.1 mg/100 ml, sodium content of 24 ppm and potassium content of 2648 ppm.

The higher copra content of the variety drew the road map for the scientists to recommend the variety in the name of Kalpa Shatabdi from ICAR-CPCRI Kasaragod for cultivation across the farmers' holdings in the foot hills of Western Ghats of Tamil Nadu. Further, in order to produce and supply quality seedlings to farmers in the near future, mother block of the variety has been planted at Aliyarnagar centre.

Performance of Kalpa Shatabdi at AICRP (Palms) centre, Aliyarnagar			
Nut yield an copra out turn		Tender nut quality	
Nut yield / palm / year	71	Volume of tender nut water (ml)	700
Whole nut weight (g)	3658	TSS (o Brix)	6.1
De-husked nut weight (g)	1856	Total sugars (g/100 ml)	5.0
Copra content (g/nut)	377	Reducing sugars (g/100 ml)	3.5
Copra yield (kg/palm/year)	26	Amino acid (mg/100 ml)	2.1
Copra out turn (t/ha/year)	4.6	Sodium (ppm)	24
Oil content (%)	67.4	Potassium (ppm)	2648



Growing bonsai, now made easy

Arjun N V, College of Agriculture, Kerala Agricultural University, Vellayani, Trivandrum



Home Gardens with Bonsai plants is found to fine tune the beauty concepts of modern interior designing. The miniature version of the enormously sized trees is definitely a treat for the eyes. Growing Bonsai is considered to be a tough task. But with few simple steps you can as well design a dwarf tree; interest will be more when the tree is coconut!.

For making a coconut bonsai an unpeeled dried coconut with husk is selected. Select those nuts which on shaking shows presence of water inside. Place these nuts in a container of water. Keep this in a warm place for 35 days. Change water every 5 days. After 35 days, remove water

and leave the nut in a dry place for 2-3 days for draining the water.

The nuts are taken and the husk is peeled carefully. On peeling we can see the coconut sprout. Take a pot or a suitable container and fill the container with well drained soil till half. Add same coco peat or coco coir. Now carefully place the sprouted nut such that the sprout and half of the nut is above the portion covered with coco coir. Water the pot.

Few days later we can see new roots developed. And further after 14 days we can witness leaf germination with increased number of roots. When the leaves grow upto 8 -10 cm with long roots the planting is ready to repot. The coir and soil attached to the nuts and roots is washed thoroughly and cleaned.

Take an attractive container pot and fill with stones in ½ inch thickness. Make a soil mix of garden soil (60%), sand (30%), compost, cocopeat / coco husk (each 10%) . The plantling is placed into this soil with the nut partially above the soil and cover it with white stones. Cover the below stem portion to prevent root drying. Keep in shade for 10 days. Pour water in every 4 days. The coconut Bonsai is ready to be in the home garden.