

Interplanting tender coconut varieties for better returns

R. Jnanadevan

Dy. Director , Directorate of Cashew & Cocoa Development, Kochi -11

Tender coconuts are used in large numbers in all the coconut producing countries. In India, annual consumption of tender coconut is about 15% of total production. Tender coconuts are valued both for sweet water which is a refreshing drink and its gelatinous kernel which is a delicious food. Moreover, the tender nut water has a number of medicinal properties and it is an essential component in many of the ayurvedic preparations. Increasing awareness among the consumers about the medicinal properties and health benefits of tender coconut water has increased the demand for tender coconuts. Though, Kerala is a major coconut growing state, consumption of tender coconut was at a very low level. But in recent times due to development of tourism industry in the state, large number of outlets selling tender coconut arriving from the neighboring Tamil Nadu State have come up. More and more farmers even in Kerala has now started the practice of harvesting seven month old tender nuts and its marketing. Consumption of tender coconut has now increased as the people are now realizing its health benefits and harmful effect of artificial drinks. Besides, the promotional activities taken up by Coconut Development Board also help to increase the consumption of tender coconut considerably. According to an estimate, about 6 to 8 million tender coconuts were in demand in Kolkata market alone. The approximate per day consumption of tender coconut in the Kasaragod

district was estimated to be ten thousand and eighty two nuts.

It is a common practice in many places to grow few dwarf palms in coconut garden. Planting tender nut varieties in the interspaces and selling seven month old tender nuts makes coconut farming more profitable in the present situation. It is one of the ways to earn additional income from coconut without making any change in farming practices and help to arrest the wide fluctuation prevailing in the price of mature coconut in the country. Under normal conditions, tender nut varieties start flowering in about 3 to 4 years when the trunk is just above the ground and a fully grown tree rarely exceeds 5 m height. It does not live as long as tall and its yield decline after 25 years of production. Although the dwarf has got certain distinct advantages over the tall it has not yet become popular among the growers in the major coconut growing states. High yielding dwarf coconuts suitable for tender nuts are now available for cultivation. These varieties are characterized by short stature which solves the problem in harvesting. It has a thin trunk with swollen base compared to tall palms and the size of the fully developed frond is small compared to tall to a maximum of four meter only. So it can be planted in widely spaced tall coconut gardens as an intercrop.

While selecting interspaces for planting dwarf tend nut varieties care should be taken to ensure distance

from the tall palm a minimum of 5 meter and ensure that the dwarf plant receives sufficient sunlight for its growth and development as coconut is a sun loving plant. Now the dwarf varieties have received much attention because of the growing demand of tender coconut and use of it as a female parent in evolving high yielding DXT hybrids released for cultivation among the farming community. Hence it is advisable to interplant a few dwarf tender nut palms in the existing tall gardens. Moreover, this will help in increasing the dwarf germ plasm material in the country with a wider genetic base for future breeding programmes to produce coconut hybrids. Distinct types of dwarf varieties suitable for inter planting in all coconut gardens are Chowghat dwarf and Malayan dwarf varieties. Characteristics of some dwarf tender nut varieties suitable for cultivation in the interspaces of tall palms are described below

Chowghat Dwarf Green (CDG)

This type is characterized by dark green coloured nuts and petioles. It flowers early, three years after planting, under ideal conditions. Prolong nuts with tapering end-often are ridged with a beak at the end. The stem is thin with a narrow base. Girth of the stem is approximately 51 cm. The crown is compact with 20-26 short and delicate leaves. It comes to flowering in about two years after planting and gives high



Chowghat Dwarf Green

annual yield per tree(120 nuts) as compared to the ordinary tall. A tender nut of this variety contains tasty kernel and 200-250ml sweet water. This palms also show tolerance to root(wilt)disease and it is suitable for replanting the inter spaces of tall palms after the removal of disease advanced plams. It is a common practice in many places to grow few dwarf palms in coconut garden. CDG was used as female parent for production of high yielding DXT hybrid (Kalpasankara) released by CPCRI.

Chowghat Dwarf Orange (COD)

This is one of the most popular tender nut varieties released by CPCRI for large scale cultivation. The palms are comparatively short stature, thin stem with close leaf scars with a small compact crown suitable for cultivation in tall garden like an intercrop. It flowers early i.e, three years after planting. Leaf is with short orange petiole and narrow leaf blades. Nuts are spherical and orange coloured . The early bearing and high-yielding characteristics of



these palms with its ornamental value are welcomed by the coconut growers. Average annual yield is 80 tender nuts/palm/year with an optimum of 200 tender nut per tree under good management. Tender nuts contain 350 ml. of sweet water. This dwarf palm was also used as female parent for production of high yielding DXT hybrid (Chandrasankara) released by CPCRI.

Malayan Dwarf Yellow (MYD)

The Malayan Dwarf yellow unlike the other dwarf, they produce comparatively larger yellow nuts. This palm is characterized by their thin stem and earliness in flowering. The leaf of this palm is also smaller about 3.5 m from the base to the tip with yellow petiole. Average annual yield is 80-90 tender nuts/palm/year with an optimum of 150 tender nut



per tree under good management conditions. Tender nuts contain 350 ml. of sweet water. Among the tender nut varieties MYD is more susceptible to drought and irrigation is necessary under such conditions. This dwarf palm was also used as female parent for production of high yielding DXT hybrid (Kalpasamrudhi) released by CPCRI.

Gangabondum

This is a dwarf variety seen in coconut growing tracts of Andhra Pradesh, which comes to bearing in about 4 years. The nuts are medium



sized and have elliptical shape, with good sweet water content. The average yield is about 70-80 nut per palm/year with 350 ml of sweet water. It is also suitable for inter-planting in tall garden where sufficient space is available and for hybridization for production of high yielding hybrids.

The tender coconut has a good market throughout the country as a health drink. A substantial share of coconut production could be traded as tender coconuts, if an integrated approach is adopted for marketing of tender coconuts with the active participation of various stake holders. This would in turn help in reducing the dependence of coconut price being decided by trends in coconut oil market. The demand will increase manifold in future and to meet the growing demand, inter-planting dwarf tender nut varieties in the existing tall garden is one of the approaches advisable for increasing the tender nut production and also for getting better returns to farmers. With the present emphasis on productivity increase and increase d income per unit area through integrated approach, it is economical to plant the most promising dwarf tender nut types like an inter crop in tall gardens where sufficient space is available and water is not a limiting factor. It is one of the ways to earn additional income from coconut without making any change in farming practices which will help to arrest the wide fluctuation in price of

mature coconut prevailing in the country.

Tender coconut production and its marketing can be a welcome source of income for smallholders, especially in situations where copra prices are low. Tender coconut has economic value than normal coconut. The coconut price at farm gate varies between Rs.8/- to 10/- depending on the size and market demand where as the price of tender coconut at farm gate varies between Rs.15/-to 18/-. Besides the traders will

also meet the harvesting charges of tender nuts. In general the economic value of tender coconut is almost double than the normal coconut. Therefore coconut farmers will have a higher income, if they plant tender-coconut varieties in the interspaces of tall palms. More and more dwarf varieties inter-planted coconut gardens suitable tender nut harvesting should be established at suitable location by the coconut farmer collective's and those palms are to be demarcated for tender nut harvesting.

Since the leaf size canopy coverage of dwarf tender nut palms are compared to tall palms more number of palms can be accommodated per hectare if inter-planting with dwarf is adopted. Like other fruit crops a high density planting system with dwarf palms in the interspaces can also be adopted in suitable locations to meet the increasing demand of tender nuts. However more studies on planting density and yield with different dwarf varieties need to be conducted.

Quench your thirst with Anu Coco

Anu Coco Food Products (P) Ltd. is a member venture of the popular Anu Group a business conglomerate with over three decades of proven expertise in diverse fields like manufacturing, trading, marketing, imports and exports, electronic and software. Anu Coco Food Products Private Limited is the first venture of its kind that marks a breakthrough in food technology, set up in technical collaboration with Defense Food Research Laboratory through Coconut Development Board.

Anu's 45,000 sft production facility is situated at Tadepallygudem, West Godavari District, Andhra Pradesh. The factory is equipped with latest and sophisticated machinery, and also having full-fledged micro biology lab. The production capacity of the plant is 50,000 bottles per day. The factory conforms to 100% hygienic standards and is managed by an expert team of highly qualified personnel.

By means of a simple and innovative preservation technique Anu Coco Food Products makes tender coconut water easily and economically available. Tender coconut water is preserved in natural form packed in Poly Bottles by innovative preservation Technology. The shelf-life of the product is 9 months under cool conditions. The product is microbiologically safe and wholesome for consumption. The group has impressive track record in successfully implementing several Turnkey projects in Middle - East. Anu Coco is also having a tie up



with Dabur India Limited for the supply of tender coconut water in PP bottles under the brand name Real Active. It has been always the mission and motto of Anu Group to offer a suitable technology and establish any project for clientele, such that it is commercially viable and technically manageable.

For further information Contact:
 M/s. Anu Coco Food Products Pvt. Ltd
 Near Indian Gas Godwon, D-48, Phase-1, I. D. A,
 Jeedimetla, Hyderabad-500055
 Andhra Pradesh, INDIA
 Ph-(off) 040-23091366, (Fax) 040-23095448
 Email : anucoco2007@yahoo.co.in/
 anucocofoodproducts@gmail.com