

# Old adage comes true in coconut cultivation

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It is well recognized that coconut plays a vital role in the economic, social and cultural activities of millions of people in our country. India ranks first in the world map of coconut productivity and second in production. In Tamil Nadu, coconut is cultivated over an area of 8.93 lakh acres with an annual production of 40,970 tons of nuts. In coconut cultivation, from time immemorial the emphasis has been on such agronomic activities like the selection of nuts from selected mother palms, planting, irrigation, manuring and cleaning of the crowns. The saplings were planted wide apart and as the old adage goes, "a farmer could lead a princely life with a thousand coconut trees, planted wide apart that even a squirrel cannot leap from tree to tree". Herein the focus was on providing maximum sunlight to the tree and also adequate air circulation in the garden. Somehow these vital aspects have escaped the attention of growers who had resorted to high density planting viz. 80 trees/acre. Farmers in Gobichettipalayam

realized the wealth of knowledge behind the saying and have gone in for planting trees in double rows 30 feet apart with 50 trees/acre.

Shri. K.S.A.Sembanan, a coconut farmer (Address: 43, Pongi Annan Street, Kasipalayam Post, Gobi Taluk, Erode, Pin 638 454) has raised 3 acres of coconut planted at 30 x 30 feet spacing so as to accommodate 50 trees per acre, with sugarcane as the inter crop. Wider spacing, says Shri. Sembanan, has helped him not only in realizing higher yield of quality nuts but also facilitating the raising of intercrops. The trees come to bearing in 6 years and give yield as high as 175 nuts per tree. Farmers begin to reap profits from the 6<sup>th</sup> year onwards while it takes about 8 years to realize profitable income from traditional orchards which is corroborated in the table below.

As can be seen from the table, the initial investment in the double row of planting was lower than the conventional planting of 80 trees/acre by Rs.9,900. Each tree produced

Expenses	80 pits/ acre under traditional planting (Rs.)	50 pits/ acre in double row of planting (Rs.)
Digging @ Rs. 20/- pit	1600	1000
Seedlings @ Rs.30/- per seedling	2400	1500
Planting of seedlings @ Rs. 10/- per plant	800	500
Manuring @ Rs. 20/- tree	1600	1000
Expenses for 5 years	20000	12500
Total expenses	26400	16500
Number of years to come to bearing	7	6
Nuts/ tree	80	175
Yield/acre	6400	8750
Gross Income	19200	26250
Net income	-7200	+ 9750



about 175 nuts/year as against 80 nuts in the traditional plantations that were reflected in higher yield and profit as shown in the table. The trees come to bearing in 6 years i.e. one year earlier than the traditional plantations.

Another farmer Shri. Raju alias Paliniswamy (Address: Dasan Koil, Akkarai Kodiveri village, Gobi Taluk, Erode District) has raised 400 coconut trees under wider spacing and earns an annual income of Rs.1.4 lakhs.

Wider spacing also facilitates production of quality nuts fit for raising seedlings. Farmers like Shri. Venkataswamy Gounder (Pacham palayam, Kurichi Post, Gobi Taluk, Erode district) have specialized in raising nurseries from quality nuts of selected mother palms for distribution to farmers.



Fig 1. Double row coconut trees planted at 30 feet apart with 50 trees per acre

resources such as soil and sunlight in the garden. Wider spacing permits the cultivation of intercrops in the inter space on the ground by cultivating seasonal, biennial and perennial crops. Crops of various canopy

irrigated coconut plantations favours luxuriant growth of several crops throughout the year due to favourable micro climate of high humidity and favourable soil temperature. Hence it is worthwhile to go in for intercrops in such conditions rather than to invest in labour in clearing the plantation of weeds and other vegetative growth. Some of the popular intercrops that are grown include tuber crops like tapioca, rhizome, spices like ginger and turmeric, cash crops like sugarcane and groundnut, fruits like banana and pineapple and tree spices like nutmeg and cinnamon.



Fig 2. Tree showing bumper yield in the double row method of cultivation

### Advantages of wider spacing

Coconut is predominantly cultivated in small and marginal holdings as a monocrop that neither generates gainful employment opportunities for family labour nor sufficient income to meet the family requirement. Coconut as a monocrop does not fully utilize the basic

heights are planted to utilize maximum vertical air space below and between the coconut canopies. Cultivation of other crops under coconut brings additional income and employment opportunities. It can also cushion the fluctuating income from coconut because of market fluctuation. The environment in

In Karnataka, farmers raise West Coast Tall at a spacing of 9 m x 9m as against normal spacing of 7.6 m x 7.6 m facilitating the raising of intercrops under a multi tier planting system. Two banana plants are planted in the interspace between two coconut trees. Between the banana plants shade loving crops like pineapple, turmeric, ginger, yam and elephant foot etc. are planted. When banana is not planted tapioca is grown along with fodder grasses. Farmers also go in for intercropping with maize, ragi, soyabean, black gram and pigeon pea.