

Research Note.

The Male Coconut Tree (*Cocos nucifera* Linn.) *

The ordinary coconut palm. The coconut palm belongs to the family Palmae and the flowers are always unisexual, i. e., they are either male or female, but monoecious, i. e., both the male and the female flowers are borne by the same tree, and they are in the same inflorescence called the spadix (Fig. 1). Each branch of the spadix is an androgynous spike with one or more female flowers towards the base of the spike, the rest of it being covered with a large number of male flowers. Thus the ordinary coconut palm has both the sexes represented in the same inflorescence.

The male coconut palm. In the Kudlu village of the Kasaragod Taluk in the South Kanara District there are three rare coconut trees which are pure males, i. e., they always produce only male flowers and never any female flowers. Though they are about forty years old, they have never been known to have produced even a single female flower or nut in their life. To all outward appearances these palms are quite similar to the ordinary or the Tall variety of coconut palm. But the inflorescence (Fig. 2) is more robust with more spikes or branches and very many more male flowers than in the ordinary coconut palm. These flowers are larger in size than those of the ordinary palm, but the pollen grains are normal.

The most important feature of these trees is the complete absence of female flowers. The trees are, therefore, called male coconut trees. It will be waste of time and money to have the male trees in any garden, in view of the fact that plenty of pollen is available from the ordinary trees for purposes of normal pollination.

• These barren trees may not be confused with the young palms of the ordinary variety which usually produce very few or no female flowers in the early years of flowering, but bear nuts normally as they advance in age.

Cocos nucifera Linn. var. *spicata*. In this connection, mention may be made of the new variety of coconut, viz., *Cocos nucifera* Linn. var. *spicata* described by

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Jacob, K. C. (*J. Bombay Nat. Hist. Soc.* 41, 906–907; 1940). This variety is quite distinct from the ordinary coconut palm in having no branches or spikes in the inflorescence (Fig. 3) and comparatively large number of female flowers and few male flowers. This variety clearly shows a greater expression of femaleness than the ordinary coconut palm. But no pure female coconut tree is as yet known to exist.

The following table gives the average number of male and female flowers in the coconut varieties mentioned above.

Number of flowers in the coconut varieties in one inflorescence.

Variety.	No. of spikes in the inflorescence.	No. of male flowers.	No. of female flowers.	Ratio—male flowers: female.
Ordinary Tall	25–40	7,000	25	1 : 0036 (normal)
Male coconut trees	200–350	14,000	Nil	1 : 0
Var. <i>spicata</i>	Nil or rarely one	150	600	0.25 : 1

From the above it is clear that there is tendency for the sexes in the coconut to develop towards dioecia, the sexes being confined to different trees. As dioecia may be considered higher in evolution than monoecia, and as plants have a tendency to advance higher in evolution, the occurrence of the male, or the female coconut tree like var. *spicata* may be considered natural.

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