

SEEN

A DWARF ARECA PALM?

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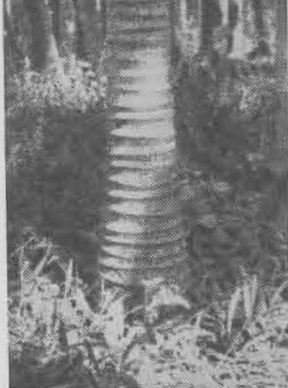
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IN A GARDEN at Hirehalli (Mysore), a dwarf areca palm, a freak, is growing. The palm is only 15 feet high, compared with the 50 to 60 feet which a normal areca palm may attain. Should it breed true, it may be used as a mother palm for raising dwarf progenies, thus solving problems of harvesting, spraying and breakage during heavy gales, which arise from the great height of areca palms.

The term 'dwarf' is generally used to describe an extraordinarily undersized individual of a race of normal stature. In Scandinavian mythology, the word connoted smallness and deformity. Dwarfs in plants are generally mutants from the common variety. In coconut, many dwarf varieties exist, though their origin has not been accurately determined. Many are supposed to be mutants of a tall variety by some change in genetic factors. The dwarf varieties are usually early bearers and yield well, but their copra is inclined to be softer and not quite of such good quality as that of the tall palms.

Areca is a tall-growing plant, consisting of a single unbranched, whitish stem, smooth, cylindrical and annulate, marked with scars of the old fallen leaves regularly throughout their height and surmounted by a crown of pinnate leaves.

During 1959, while I was engaged in intensive and detailed study of the gardens in the Maidan areas looking



Close-up of the stem structure



The dwarf palm amidst other palms



Crown of the dwarf, showing the inflorescence

out for the best-yielding gardens to select mother palms from, I came across this palm, which was apparently a dwarf. It was growing in a garden of 2½ acres side by side with others, and was the only one of its kind in the entire area. Though the owners were ill-pleased with its growth and low yield, the superstitious belief against cutting

down a live and bearing palm was responsible for its being alive till to-day. The palm, which is 40 years old, is only 15 feet high; it has suppressed internodal spaces, so that the annular scars appear as though superimposed. The general appearance of the stem is that of the coconut. The crown, leaf, inflorescence, and nuts are all normal. A

HOW THE DWARF COMPARES WITH A NORMAL PALM

| Details | Normal palm | Dwarf palm |
|--|-------------|------------|
| Height of the palm | 36 feet | 15 feet |
| Internodal space | | |
| (a) At bottom | 9 " | ¾ " |
| (b) At middle | 8 " | ½ " |
| Girth of the palm | | |
| (a) At the 10th internode | 15.5 " | 21 " |
| (b) At the middle | 14 " | 15.5 " |
| (c) At the top | 12 " | 10 " |
| Height of the 10th internode from ground level | 5' 9" | 10" |
| No. of leaves | 8 | 8 |
| Length of leaf sheath | 27" | 15" |
| Length of leaf | 6' 10" | 2' 9" |
| Breadth of inflorescence | 26" | 14" |
| No. of inflorescence (bunches) | 3 | 1 |
| No. of nuts in the bunch | 160 | 41 |

comparative study of the dwarf palm and a normal palm gives these interesting variations:

The inflorescence and floral characters are also normal to *Areca catechu*; the two nuts are normal and are of a medium size and slightly elongated shape. It was also ascertained that the cured product was in no way different.

The complete suppression of the internodal space is the main feature of the dwarf areca. In addition,

consequent shortening in the length of the leaves and inflorescence is also noticed. Moreover, in common with all dwarfs of such perennial plants, it is a poor bearer. All these strongly indicate that the palm is a true dwarf, having arisen as a mutant.

Unfortunately, the palm is located near the fence on the eastern side of the garden and this area is subject to heavy theft. All my efforts to collect the ripe nuts were

frustrated by the theft of the bunch. Since in this area harvest of only tender nuts is in vogue, harvesting will be over by the middle of October and no arrangements are made for watch and ward of the garden from then on. Even where bunches are retained for seed nuts no watch is posted as it will be very costly to the ryot. It is now proposed to post a watchman night and day to guard the bunch and collect ripe nuts to test whether it breeds true.

ANDHRA'S SALINE LANDS

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such a period it was observed that the salt content in both the plots approximated to each other or one exceeded the other slightly. Again, after the harvest of the main crop in November-December, the plots were left fallow till January-February, when transplantation of the second crop was taken up. During this interval, the same phenomenon was repeated, thereby showing that continuous cropping with rice under flooded condition was necessary to keep the salt content from rising.

ECONOMICS OF RECLAMATION MEASURES

The most economical reclamation measure consists in raising a crop of *dhaincha* (*Sesbania aculeata*) and its incorporation before transplantation. The cost works out to about Rs. 15/- per acre. The net profit was Rs. 89.

The cost of paddy-straw or molasses at 5000 pounds per acre, and one ton per acre, respectively, works out to about Rs. 90/- per acre. The yields under the paddy-straw treatment have been uniformly high throughout; the net profit was Rs. 26/-, as compared to the control. The molasses treatment was the least economical and resulted in a loss of Rs. 1.00 nP.

To sum up, for successful crop production on these soils on a permanent basis the following measures have to be adopted:

Application of paddy straw, or green manure (*dhaincha*) at 5000 pounds per acre may be grown and ploughed *in situ*;

Raising a saline-resistant variety of rice and transplanting the seedlings after the incorporation and decomposition of the organic manures;

Adequate manuring; and

Continuous cropping with good-quality irrigation water, provision for adequate drainage for leaching of the salts, and keeping the water table low.

SPARE-TIME OCCUPATIONS

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| Expenditure | | Income | |
|--|---------------|--|---------------|
| | Rs. | | Rs. |
| Cost of hens & cockerels | 50.00 | Sale proceeds of 2,150 eggs @ 0.12 nP per egg | 268.00 |
| Sitting houses, feeding troughs, chicken box, water pots, etc. | 30.00 | Sale proceeds of 20 hens each @ Rs. 2/- | 40.00 |
| Recurring expenditure | 100.00 | Sale proceeds of about 20 cockerels each @ Rs. 1.50 per cock | 30.00 |
| Other sundries | 20.00 | Other income | 12.00 |
| Total | 200.00 | | 350.00 |
| Net Income | 150.00 | | |

LEAF PLATTERS

The making of leaf platters is also another useful spare-time occupation which however is not as remunerative as the other cottage industries. Leaf platters are used by one and all, irrespective of caste or creed; in fact, many orthodox families use only leaf platters.

The raw materials needed for this industry are leaves and broom-sticks. The leaves used for this purpose are cashewnut, *murukkan*, etc. The leaves are joined together by means of broomsticks. Usually, the leaves, as also the broomsticks, are available on the farmer's land.

A bundle of leaves, with which 75 to 100 platters can be made, costs about 0.25 nP., and broomsticks cost about 0.06 nP.—a hundred leaf platters fetch Rs. 1.00. The net income is 0.69 nP.

Ordinarily, a man can stitch about 150 leaf platters a day. However, this type of work is mainly carried out by womenfolk, as it does not require any skill or hard labour.