PHILIPPINES ORDINARY - A HIGH YIELDING COCONUT CULTIVAR

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Introduction

The Central Plantation Crops Research Institute, Kasaragod, Kerala is maintaining the world's largest coconut germplasm assemblage of 132 accessions comprising of 46 indigenous and 86 exotic culivars. The exotic collections from 22 countries of South and South-East Asia, Caribean Islands, Indian Ocean Islands, Pacific Ocean Islands and African countries, consists of 70 Talls and 16 Dwarfs. The indigenous collection comprises of 34 Talls and 12 Dwarfs.

Performance of Philippines Ordinary Under Indian Condition

The performance of four exotic types viz., Java, Cochin China, Philippines and New Guinea at Coconut Research Station, Nileshwar, Kerala was evaluated by Nambiar in 1971. The cultivar Philippines produced 94 nuts and 23.4 kg copra/palm/year as against 88 nuts and 12.9 kg of copra in Local Tall. Santhamalliah *et al* (1981) reported that out of 19 accessions (both exotic and indigenous) planted at Arsikere (Karnataka), the cultivars Philippines, Gangabondam and Laccadive Ordinary are regular and high yielders than other cultivars. Nair *et al* (1991) reported that Philippines Ordinary has high yield potential even during the in l years of bearing i.e., 10-15 ye after planting and during 17 years gives 33.3 per cent increase number of nuts over West Co tall. With respect to copra yie i.e., copra/nut and copra/palm ar, Philippines Ordinary was perior with 48.5 and 66.0 per ce increase respectively over We oast Tall.

The recent obser tions on the performance of coco ut cultivars at CPCRI Kasaragod, Philippines Ordinary is found to give higher yield than West Coast Tall (Table 1). The mean yield of nuts/palm/year is 110 nuts with copra yield of 20.8 kg/palm/year thereby showing an increase of 37.5 per cent and 50.7 per cent respectively over West Coast Tall. Moreover, the increase with respect to nut ytield and copra yield over the released variety, Chandrakalpa' is 12.2 and 20.9 per cent respectively (Table 1, Fig.1(a).

The performance of Philippines Ordinary at Ratnagiri centre (Maharashtra) and Ambajipeta centre (Andhra Pradesh) under the All India Co-ordinated Research Project on Palms is superior to the other cultivars evaluated. The yield at Ratnagiri centre is 104.4 nuts/palm with a copra out turn of 22.3 kg/palm as against 91.9 nuts and 14.2 kg in West Coast Tall. More-

Table-1. Performance of Philippines Ordinary at CPCRI, Kasaragod in comparison with `Chandrakalpa' and West Coast Tall

Cultivars	*No. of nuts/palm /year**	*Copra/ nut(g)*	*Copra/ palm/ year(kg)*	*Copra/ ha(t)*	*Oil content (%)*	*Oil/ palm/ year(kg)*	*Oil/ ha (t)*
1. Philippines Ordinary	110 (25.9)	189	20.8	3.6	66	13.7	2.4
2. `Chandrakalpa' (Laccadive Ordinary)	98 (30.85)	176	17.2	3.0	70	12.0	2.1
3. West Coast Tall	80 (41.03)	172	13.8	2.4	68	9.4	1.6
Percentage increase over `Chandrakalpa'	12.2	7.4	20.9	20.0	-	14.2	14.3
Percentage increase over West Coast Tall	37.5	9.9	50.7	50.0	-	45.7	50.0

* *Average of 10 years.* *Figures in parenthesis indicates CV(%)*

Table-2. Performance of Philippines Ordinary at Co-ordinating Centres

Name of the centre	Name of cultivar	No. of nuts/palm /year	Copra/nut (g)	Copra/ palm/ year(kg)	Copra/ ha (t)	Oil content (%)	Oil/ palm/ year(kg)	Oil/ ha (t)
	Philippines Ordinary	104.4*	213.7	22.3	3.9	69.6	15.5	2.7
	'Pratap'	144.1	151.6	21.8	3.8	68.4	14.9	2.6
Ratnagiri	West Coast Tall	91.9	154.6	14.2	2.5	68.2	9.6	1.7
(Maharashtra)	% increase over 'pratap'	--	41.0	2.3	2.6	--	4.0	3.8
	% increase over West Coast Tall	13.6	38.2	57.0	56.0	-	61.5	58.8
Ambajipeta	Philippines Ordinary	117.7**	194.0	18.1	3.2	-	-	-
(Andhra Pradesh)	East Coast Tall	98.3	180.0	14.4	2.5	-	-	-
	% increase over East Coast Tall	19.8	7.8	25.7	28.0	-	-	-

* *Average of 16 years* ** *Average of 13 years*

over the increase in yield of copra/palm/year is 2.3 and copra/ha is 2.6 per cent over the released variety 'Pratap' which was recommended for commercial cultivation for the coastal Maharashtra, during 1987 by the Konkan Krishi Vidyapeeth, Dapoli (Table 2, Fig 1(c)). At Ambajipeta centre Philippines Ordinary gave a higher yield with 19.8 per cent increase with number of nuts/palm and 25.7 per cent increase with respect to the copra yield/palm over the local variety - East Coast Tall (Table 2, Fig 1(b)).

Rajgopal *et al* (1990) observed that Philippines Ordinary ranks sixth among 23 cultivars evaluated for drought tolerance, with stomatal resistance of 7.3 sec/cm, transpiration rate of 2.8 µg/cm, leaf water potential of 13.2 bars and epicuticular wax content of 113.4 µg/cm^2.

Under the varietal resistance screening trial against root(wilt) disease in 33 Talls, 6 Dwarfs and 6 Hybrids, the cultivars Philippines Ordinary had the disease incidence of only 41.6 per cent as against 61 per cent in West Coast Tall, 100 per cent in Andaman Giant, Andaman Ordinary and Malayan Green Dwarf (Jacob and Rawther, 1991).

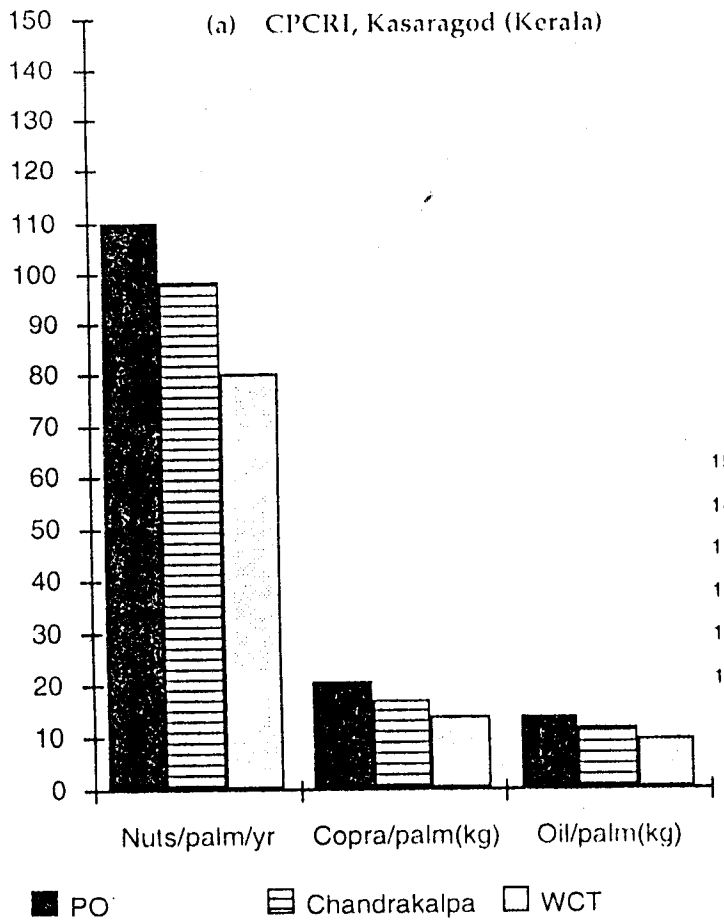
Among 61 coconut cultivars screened against burrowing nematode, *Radopholus similis* the cultivar Philippines Ordinary had significantly lesser population i.e., 51/gm root, than West Coast Tall and Chandrakalpa with 150 and 306/gm root respectively.

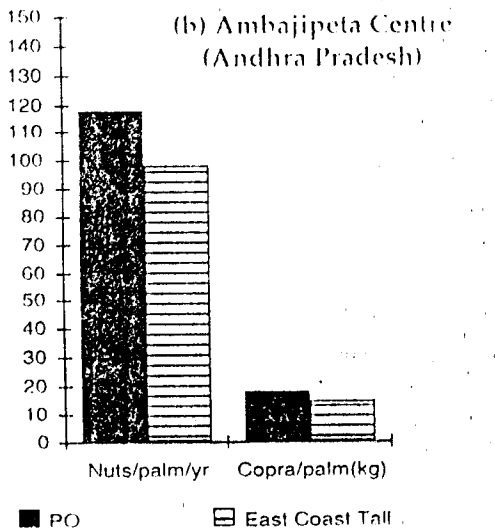
The descriptor of the cultivar Philippines Ordinary is given in Table 3 (Fig. 2 a & b).

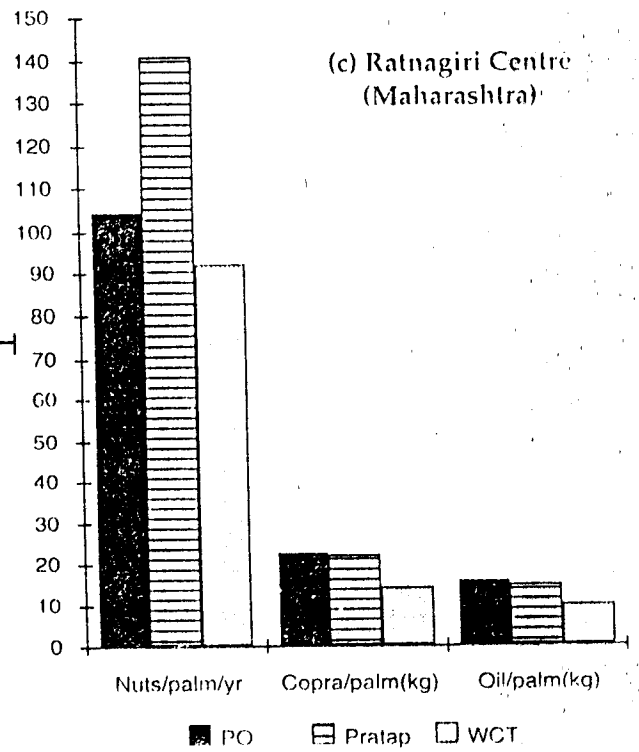
Table 3. Description of Philippines Ordinary

	Characters	Range	Mean
1.	Height of stem (cm)	1064 - 1432	1194.5
2.	Girth of stem (cm)	72 - 101	85.0
3.	No. of Leaf scars	28 - 36	29.7
4.	No. of leaves	30-41	38.6
5.	Length of petiole (cm)	82 - 128	118.7
6.	Length of leaflet	336 - 422	372.7
7.	No. of leaflets(on one side)	107 - 122	114.5
8.	Length of leaflet (cm)	110 - 129	123.0
9.	Breadth of leaflet (cm)	5 - 7	5.7
10.	Time taken for flowering (months)	60 - 102	80.5
11.	Length of inflorescence (cm)	92 - 122	112.4
12.	Length of inflorescence with spikelets(cm)	45 - 62	58.0
13.	Length of inflorescence without spikelets(cm)	25 - 38	35.4
14.	No. of spikelets	34 - 41	37.0
15.	Length of spikelet (cm)	30 - 45	42.5
16.	No. of female flowers	10 - 42	26.0
17.	No. of bunches	9 - 17	13.7
18.	Nuts/palm/year	100 - 141	110.2
19.	Copra/nut (g)	-	189.0
20.	Copra/palm/year (kg)	-	20.8
21.	Copra/ha (t)	-	3.6
22.	Oil (%)	-	66.0
23.	Oil/palm/year (kg)	-	13.7
24.	Oil/ha (t)	-	2.4
25.	Fruit shape	-	Round

Fig.1 PERFORMANCE OF PHILIPPINES ORDINARY







Because of the high and consistent yield potential, the cultivar Philippines Ordinary has been recommended for release as a National Variety during the 12th Workshop of All India Co-ordinated Research Projects on Palms, held during 21-23, December 1995, at CPCRI, Kasaragod, for commercial cultivation in the West Coast Including Konkan region, East Coast of Andhra Pradesh and West Bengal.

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