

THE FIELD DAY AT LETCHEMY ESTATE, NATTANDIYA

A DELIGHTFUL Field Day at Letchemy Estate, Nattandiya, arranged by the Coconut Research Institute under the auspices of the Chilaw-Negombo Planters' Association and by kind permission of the Proprietors of Noorani Estates, Ltd., was very well attended. The purpose was to inspect the progress of the manurial experiments on underplanted young palms which have been carried out for the past 11 years by Dr. M. L. M. Salgado, Soil Chemist, and also to see the results of replanting under estate conditions by removing the old palms in various ways.

It was shown conclusively that underplanting in a soil on which coconuts have been grown for over 60 years is futile unless the condition of the exhausted soil is improved by manuring; it was also shown that if the old palms are left in, the young palms do not yield for many years and then are not very productive.

Manurial Experiment on Underplanted Young Palms at Letchemy Estate

The experiment consists of the following six treatments :—

1. o ... No manure—No cover.
2. o ... No manure—Cover present.
3. NK ... Nitrogen and potash only—No cover.
4. NK ... Nitrogen and potash with cover.
5. NPK ... Complete mixture—nitrogen, potash and phosphoric acid—No cover.
6. NPK ... Complete mixture, with cover.

There are 30 plots arranged in five blocks of six plots each, *i.e.*, each treatment is repeated five times; each plot consists of 18 palms separated by guard rows, *i.e.*, there are 540 plot palms under experiment.

Date of Planting of Seedlings.—November, 1939.

Manuring.—The first application of manure was carried out in December, 1940, and subsequently annually. The manure was applied round the seedlings up to a distance of two feet and lightly forked. Subsequently the manure circle was extended up to four feet.

Rates.—	1940-1942	1943-1950	1951
	Per palm	Per palm	Per palm
N as sulphate of ammonia	$\frac{1}{2}$ lb.	1 lb.	$1\frac{1}{2}$ lb.
P as saphos phosphate	$\frac{1}{2}$ lb.	1 lb.	1 lb.
K as muriate of potash	$\frac{1}{2}$ lb.	1 lb.	$1\frac{1}{2}$ lb.
Total ...	$1\frac{1}{2}$ lbs.	3 lbs.	4 lbs.

Results

The first palm came into bearing in 1945 in the 6th year after planting. In 1948 there were 200 palms in flower (out of a total of 540) and at the end of 1950 this increased to 389 and was distributed as follows :—

Cover v. No Cover, Palms in Flower

(Each treatment below consists of 90 Palms)

	O	NK	NPK	Total
No Cover	56	76	67	199
Cover	63	53	74	190
	<u>119</u>	<u>129</u>	<u>141</u>	<u>389</u>

Yield of Nuts

In 1950, the crop of 4,705 nuts was distributed as follows :—

	O	NK	NPK	Total
No Cover	584	1,031	1,102	2,717
Cover	392	607	989	1,988
	<u>976</u>	<u>1,638</u>	<u>2,091</u>	<u>4,705</u>

Manurial Results

(a) Palms in Flower from 1945 to end of 1950—

	1945	1946	1947	1948	1949	1950
O	—	12	43	68	99	119
NK	—	16	49	77	97	129
NPK	1	12	41	75	117	141
	<u>1</u>	<u>40</u>	<u>133</u>	<u>220</u>	<u>313</u>	<u>389</u>

(b) Yield of nuts from 1949 to December, 1950—

	1946	1947	1948	1949	1950
O ...	—	92	325	864	976
NK ...	—	87	668	1,630	1,638
NPK ...	15	191	650	1,785	2,091
	—	—	—	—	—
	15	370	1,643	4,279	4,705

It will be seen that the complete mixture (NPK) gives the highest yields of nuts

(c) Yield of copra from 1946 to December, 1950 (lbs.)—

	1946	1947	1948	1949	1950
O ...	—	44	111	269	501
NK ...	—	45	281	497	878
NPK ...	11	120	272	605	1,158
	—	—	—	—	—
	11	209	664	1,371	2,537

The complete mixture gives the highest yield of copra

(d) Copra out-turns from 1946 to December, 1950 (nuts per candy)—

	1946	1947	1948	1949	1950
O ...	—	1,171	1,175	1,122	1,091
NK ...	—	1,083	1,158	1,084	1,045
NPK ...	764	821	945	1,051	1,011
	—	—	—	—	—

The complete mixture gives the largest nuts

The old stand of palms was removed as shown below :—

1948	118 palms
1950	100 palms
1951	135 palms

There yet remain 524 palms of the old stand which have to be removed.

Cultivation.—Weeding round palms was done at least twice a year. The soil was turned in alternate rows this year.

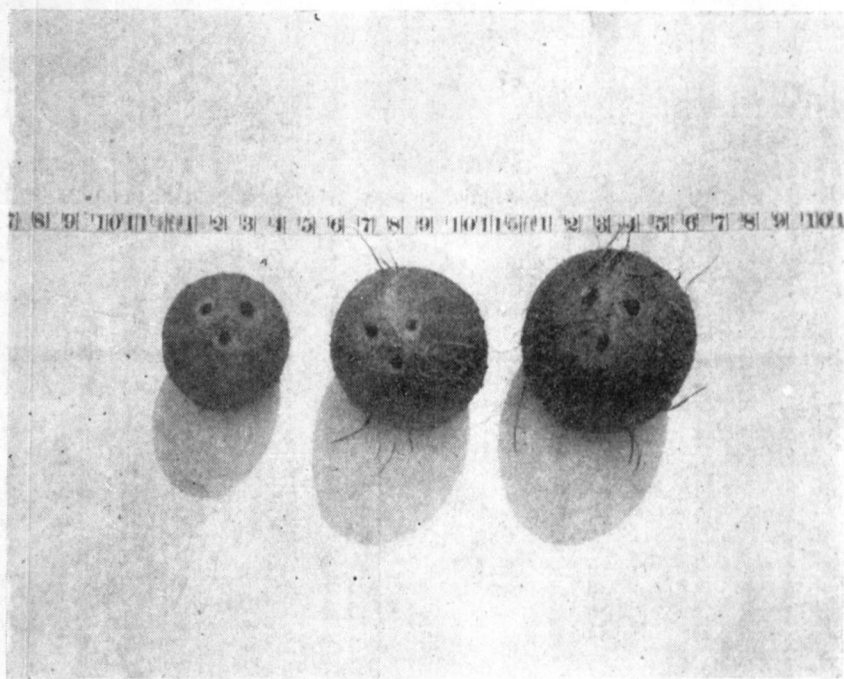
Special Note.—*The poor condition of palms that have not been manured is outstanding. Underplanting without manuring is futile.*

A paper was read by Dr. Salgado and speaking subsequently the Chairman of the Association Mr. Roland Pandittesekera, said that he was glad to see that the Association was getting away from political planting and getting down to practical politics and he expressed his gratitude to Messrs. Ekanayake and Jayasuriya for the very able manner they arranged the first of a series of

Field Days it proposed to hold. He expressed his appreciation of the *Ceylon Coconut Quarterly* and recommended it to all members. Mr. Cooke, Director of the Coconut Research Institute, wished to dispel a popular notion that "nothing was being done to rehabilitate the industry." He said that anyone who motored through the Low-Country could see for himself that thousands and thousands of acres had been replanted, and he added that the Coconut Research Institute had been responsible for the issue of thousands and thousands and thousands of seedlings from the 25 nurseries which have been established in various parts of the Island. He emphasised that the most urgent need was to make a good job of replanting because the future of Ceylon requires a progressive increase in crop from the existing areas and if the job is not done conscientiously the reverse would happen.

A hearty vote of thanks to the Management of the Noorani Estates Company, Ltd., and to all concerned in the very successful organisation of this field day was moved by Mr. X. Jobin of Palugaswewa Estate.

MANURING AND SIZE OF NUTS



Left unmanured; middle NK only; right—complete mixture—NPK