FIRST OR SECOND BUNCH NUTS?

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A discussion of the relative merits of first and second bunch nuts for seed purposes.*

IT is normal on coconut estates to harvest the nuts once in every two months. The coconut palm produces one inflorescence or fruiting branch every four weeks; so that at each harvest two bunches are usually collected from a tree, one of which is approximately a month older than the other. The older bunch is referred to as the first bunch and the other as the second bunch.

For many years there has been acute controversy as to which bunch will give better seed nuts; some maintain that the progeny derived from nuts of the second bunch are superior to those of the first bunch, and *vice versâ*.

Performance of Seedlings

From a normal estate pick 200 first bunch nuts and 200 second bunch nuts of uniform size and shape were collected and planted out in the nursery. First bunch nuts and second bunch nuts being planted alternately in long trenches, six inches deep and secured with soil in the usual manner.

After nine months, the seedlings were uprooted and examined, and the data collected were as follows:—

	% Germinations.	Avr. period taken for germination.	Avr. No. of leaves per seedling.	Avr. No. of roots per seedling.
First bunch nuts	91	103 days	4.0	11
Second bunch nuts ...	89	101 days	4.0	11

Thus there are no significant differences either in the germination or other characters of seedlings, between first and second bucnh nuts. This is rather surprising because the embryos (germination points) of the first bunch nuts are older than those of the second bunch nuts; yet, in both cases, the embryo lies dormant for about three months and then awakens into activity, more or less at the same time.

Performance of Adult Palms

Data from 147 first bunch nut palms and 145 second bunch nut palms are now available. These palms were planted at random in a five-acre block and the manurial treatments were identical for all.

*This is a popular edition of an article by the same author which is being submitted for publication in the *Tropical Agriculturist*.

As is usual, the time of reaching maturity varied for individual palms, but there were really no marked differences between the two classes of palms as the following figures show :—

Age.	Number of palms in flower	
	First bunch nut palms.	Second bunch nut palms.
5 years	21	... 25
6 years	103	... 104
7 years	142	... 143
8 years	147	... 145

The yields of these palms were recorded from the sixth year onwards after planting and the annual crops were as follows :—

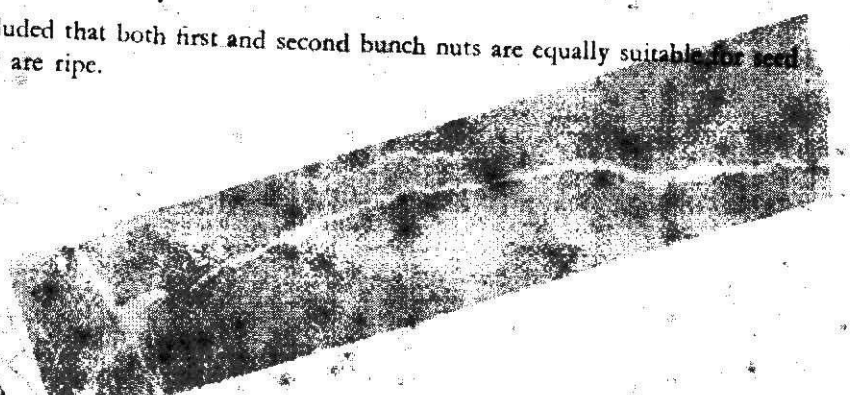
Yields.	Nuts per Year						
	6th	7th	8th	9th	10th	11th	12th
First bunch nut palms ...	41	... 1,089	... 5,616	... 7,623	... 7,671	... 6,012	... 6,440
Second bunch nut palms	150	... 1,351	... 5,704	... 7,857	... 7,739	... 5,823	... 6,356

During the first three years of bearing, the second bunch palms yielded more than the first bunch palms, but from the 8th year onwards these differences have evened out. Between the 8th and 12th years the total crops were :—

	Total crop.	Avr. per palm per year	Copra per palm per year.
First bunch nut palms ...	33,362 nuts	... 45.4 nuts	... 18.1 lbs.
Second bunch nut palms ...	32,873 nuts	... 45.3 nuts	... 18.4 lbs.

These palms are now sixteen years old and up to now no differences are apparent in the vigour of the palms or any other associated characters between the two groups. Heavy leaf drooping and immature nut-fall occur with every drought and analyses of figures show that the affected palms are divided equally between the two groups. A few palms show signs of tapering and here again it is common to both groups.

Thus it can be concluded that both first and second bunch nuts are equally suitable for seed purposes as long as they are ripe.



(These experiments were initiated in 1914 by Mr. W. V. D. Peiris, former Geneticist, Coconut Research Scheme).