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**Studies on the keeping quality of ripe
coconuts in storage**

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coconuts on a small scale in households**

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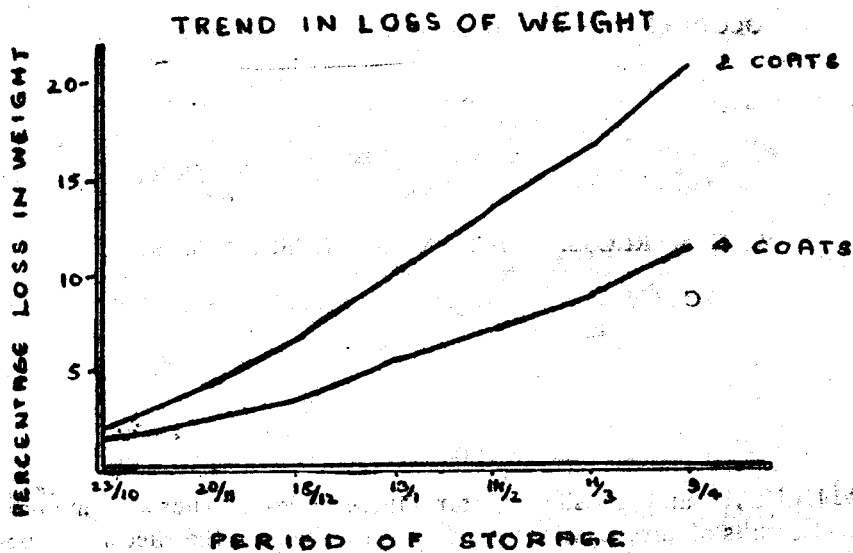
INTRODUCTION

MULIYAR and Krishna Marar (1963) in an earlier communication presented results of investigations conducted by them on the effects of repeated paraffin wax coatings to fully husked nuts. The results were in conformity with the earlier findings on the effectiveness of paraffin wax coatings in preventing quick drying of nut water during storage. The process is a simple one and could be easily adopted in any household with the facilities ordinarily available with them; but they would wish justifiably to know the cost involved in the treatment. The studies reported in this paper were done mainly with the object of gathering information on this aspect.

DETAILS OF STUDIES

One hundred fully ripe coconuts of medium size were selected from freshly harvested coconuts and they were dehusked fully. The fibres sticking out of the shell were all removed to ensure a complete, smooth and even coverage, of paraffin wax. The nuts were divided into two lots of fifty nuts each. Each nut of one lot was given two coatings with paraffin, one over the other. The nuts of

the other lot of fifty received each four successive coatings of paraffin. About three kilograms of paraffin was taken in an empty zinc drum and heated over a fire to melt it and to maintain it in that condition, till the whole lot of nuts was treated. The nuts to be treated were then dipped in the molten paraffin for a few seconds and taken out. This process was repeated over as many times as the number of coats which the nuts are to receive. Before and after treatment the weights of the nuts were taken to determine the actual quantity of paraffin used up in giving the coating to the nuts. The requirement of paraffin per nut on an average was 10 gms. for two coats and 16 gms. for four coats. The treated nuts were stored in well ventilated receptacles at room temperature. The loss of weight and drriage of nuts were recorded every fortnight for the two lots of nuts separately. The trend of loss in weight on storage is presented graphically in Figure below.



Driage was first noted in the case of nuts given two coats of paraffin after a period of 140 days and it continued progressively and after six months more than 35 nuts in the first lot were dried up. In the case of the second lot where four coats of paraffin had been given driage was first noted only after 200 days and it progressively continued and after a period of 300 days more than 35 nuts got dried up.

The nuts were cut open at the end of the experiment and kernels were examined. They were found to be in perfectly good condition and tasted quite fresh.

The results thus give further confirmatory evidence for the beneficial effect of paraffin coating in delaying the driage of nut water during storage.

The cost of paraffin treatment was worked out and is given below :

	For 100 nuts	
	For 2 coats	For 4 coats
Cost of paraffin @ 10 gms. per nut for two coats and 16 gms. per nut for four coats	Rs. Ps. 1 . 50	Rs. Ps. 2 . 50
Labour charges for dehusking, cleaning and dipping in paraffin	1 . 25	1 . 25
Miscellaneous	0 . 25	0 . 25
Total	<u>3 . 00</u>	<u>4 . 00</u>

Thus the cost of treatment works out to only 3 paise per nut for giving two coats, and 4 paise per nut for giving four coats. The cost, of course, will be much less if more numbers of nuts are treated at one time and if the paraffin used can be recovered for subsequent use. Two coats are sufficient for the normal storage requirements. This process will enable coconuts to be purchased and stored in almost fresh condition for future use, when the prices are relatively low.

SUMMARY

Trials were conducted to make a comparative study of the efficacy and cost of paraffin wax treatment of fully husked coconuts for preventing quick drying of nut water during storage. It was found that four coats of paraffin improved the shelf life more than two coats. Under the conditions of the experiment the cost of paraffin wax treatment came to only 3 paise per nut for giving two coats and 4 paise per nut for four coats. This simple treatment can be done in every household.

ACKNOWLEDGEMENT

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