

RODENT PROBLEM IN LAKSHADWEEP

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Introduction

Rat is a serious pest of the coconut palm in Lakshadweep islands. House rat (*Ratus rattus*) and house mouse (*Mus musculus*) are the commonly found species. The rats are found in most of the houses and godowns, situated close to the palms. A decade back the rat menace was extremely serious, causing about 35% loss in production. Recent reports from Kavaratti indicate that this loss has come down to about 10%, owing to the implementation of massive rat control programmes and follow up action with warfarin blocks etc. by the Lakshadweep Agricultural Department (Verma, 1976).

Nature of damage

The rats usually enter the crowns of the palms and burrow into the immature nuts mainly to obtain the nutritive drink and rarely to eat the soft meat. Nuts at all stages of their development are destroyed by rats (Figs 1 and 2) and the maximum attack was observed on tender coconuts of 3-4 months growth.

Circular or pear shaped holes near to the perianth were found on the attacked nuts. Such attacked nuts are damaged and eventually shed. Mature nuts are also attacked, in which case no such holes could be made probably due to the hardness of the pericarp. But the visible symptoms of the attempt of the rats' attack could be observed as biting marks on the nuts and generally these does not adversely affect the yield. One peculiar feature about these rats is that they are able to complete their entire life-cycle on the crown of the palm itself. Since the trees grow over-crowded without proper spacing in these islands, it is very easy for the rats to move from one tree to another and continue their attack un-hindered. At Minicoy, the usual hiding and breeding places for the rats are thick bushes of screwpines, *Pandanus* spp. The damage due to rodents was found very high in the south Pandarum lands, where no management practice for coconut has been adopted (Singh Gautam, 1976).

Control measures

Several control measures were followed for the control of the rats. Use of wonder cage rat traps (Fig. 3), nailing of tin sheets to the stem of the palm or tying of coconut leaves, both green and dried, around the stem and tying polythene or plastic sheets to prevent the climbing up of the rats are being followed in the islands. In rat traps, occasionally even 10 rats could be trapped at a time. In some islands, white cucumber shaped stones are tied around the stem. The rats would mistake them for cats and run away. In some other islands, tin with a bell like arrangement with a stone inside will be hung over the coconut leaf with thread. Even a slight breeze is sufficient to make the bell ring, which drives the rats away.

Paraffin wax-coated blocks, soluble warfarin (Rodafarin-S) and poison baits are also used. Trials with warfarin blocks have given very encouraging results. In a trial in Androth island, the use of warfarin blocks reduced rat damage by 91.3%.

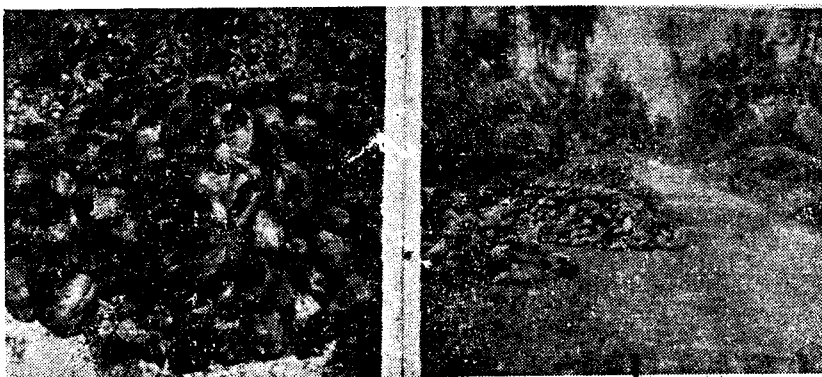


Fig. 1

Fig. 2

It was also reported that the production and export of copra from Androth increased from 244.4 tonnes in 1969-70 to 320.71 tonnes in 1970-71, even though the coverage was only for 22,000 palms against the estimated 50,000 bearing palms (Sethumadhava Menon, 1972).

Rat hunts and rat control campaigns are being conducted by the Lakshadweep Agricultural Department. In collaboration with them, CPCRI Regional Station, Minicoy has organised

rodent control campaigns at Minicoy and Kavaratti islands and an integrated control operation was also tried which helped to a very great extent in bringing down the rat population in Lakshadweep (Singh Gautam, 1977).

Conclusion

Thus the damage of coconuts due to rats is very severe in Lakshadweep and it is very essential that all the farmers / people of the islands should be

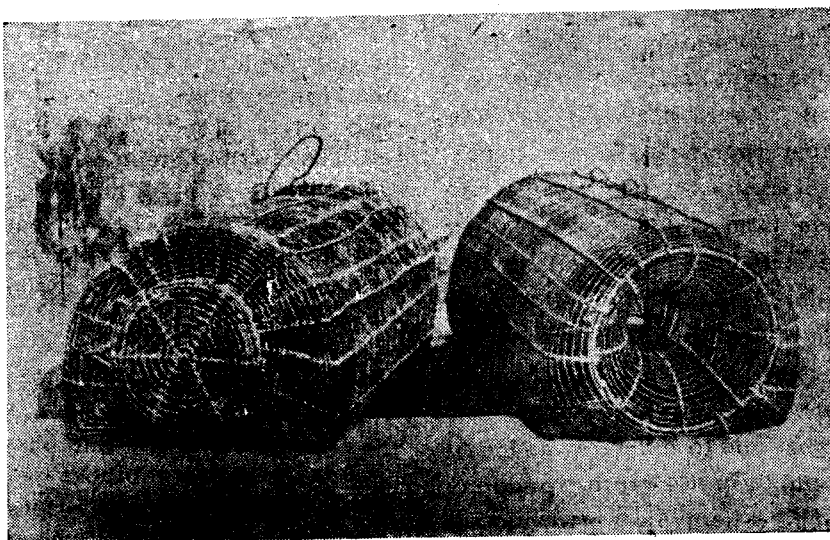


Fig. 3

given up-to-date training on the control of rats so that the loss of nuts due to rat damage can be reduced still further.

References

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