

# Glimpses of Coconut Cultivation in Andrott Island of Lakshadweep

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Lakshadweep is a group of Islands (numbering above thirty) in the Arabian Sea scattered between 8° and 12° 30' north latitude and 71°-74° east longitude, with a total area of 32 sq. km. Among the Islands only ten are inhabited. Andrott is the largest one with a population of about 6812 (1981 census) and area of 4.84 sq.km. of which 464 hectares are under cultivation. This is the only island that lies in east-west direction whereas all other islands lie north-south. Coconut is the major crop being grown there in about 450 hectares of the cultivated area. Rest of the area is under vegetable cultivation, viz. tomato, brinjal, chillies, pumpkin, cowpea, lady's finger, snake gourd, bitter gourd, ash gourd, cluster beans, sword beans and both green and red amaranthus. Apart from coconut, neem, breadfruit, guava, citrus, papaya, banana, mango, sapota, cherry, pomegranate, curry leaf and drumstick are also grown. *Ficus* spp., *Thespesia* and *Erythrina* too are found in the region.

Coconut cultivation in Andrott is practised at a very high density of about 100-200 palms planted in an acre so much so that the leaves of the adjacent palms intermingle with each other giving an impression of a coconut jungle rather than a coconut garden. This does affect the yield of the palms. However, Laccadive ordinary and Laccadive micro, the two widely grown varieties/cultivars of coconut in Andrott give an average yield of 100-140 nuts and 280 nuts/yr, respectively. Though yield from Laccadive micro is high, its alternate bearing tendency and low market value compared to that of Laccadive ordinary

grown as a rainfed crop and to preserve moisture coconut husk is used as mulch



Densely planted coconut garden

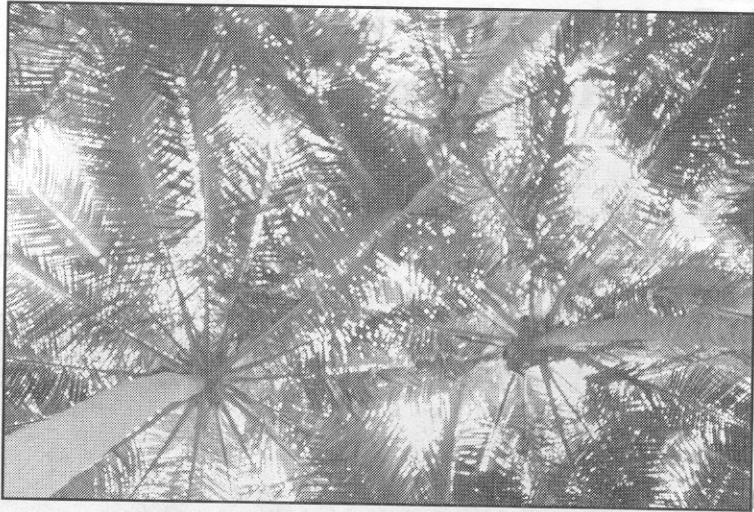


A vegetable garden in Andrott Island

prompts the farmers to cut them down. This could lead to a situation of loss of this variety from the existing biodiversity of the Island. Besides these, Green Dwarf and Yellow Dwarf are the other cultivars, which are planted. Coconut is

in the basins of the palms. The use of chemical fertilisers is banned in Lakshadweep as it causes ground water pollution. Hence, the emphasis is on organic manuring of coconut palms for which cowdung, poultry manure and neem oil cake are utilized. The various products of coconut which find their way in daily life of an Islander are coconut oil, jaggery, vinegar, copra and of course, sweet toddy.

Coconut palms though organically grown and irrigated by nature, do not escape the wrath of pests and diseases. Common pests, which are observed on coconut, are rhinoceros beetle (*Oryctes rhinoceros*), mealy bugs (*Pseudococcus* sp), nut crinkler (*Paradasynus rostratus*), leaf and nut scales (*Aspidiotus* sp) and rats. Rhinoceros beetle had posed a major problem about a decade back but release of *Baculovirus oryctes* successfully controlled the pest population in Andrott to such an extent that farmers



*Overlapping leaves of closely growing coconut canopy*

are now finding it difficult to obtain this adult beetle which is used for baiting rat. Currently rat infestation is a menace. They damage tender nuts thereby causing severe crop losses in many areas. These rodents make small holes (about 5 cm diameter) near the perianth region of nuts (3 to 6 months old) and feed on the inner contents, resulting in shedding. Shed tender nuts with characteristic holes can be located at the base of the affected palms. Unopened spathes, female flowers and leaf stalks are also attacked.

For controlling rodents, use of live or death traps is the safest method, even though labour intensive. Removal

of dried leaves, spathes and matrix regularly from the crown exposes the resting places of these arboreal rodents to predators.

In the wake of the extensive damage done by rats in Andrott, a community effort is now

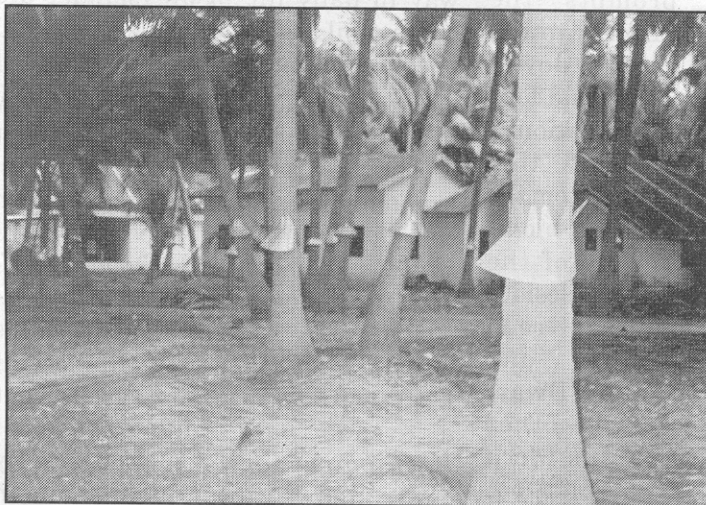
being organised to control this rodent problem by providing mechanical barriers in the form of inverted funnel shaped G. I. sheet bands, about 30-40 cm wide, fixed around the trunk of palms at a height of 2 m from the ground. Since the rats move from palm to palm through the fronds, for which conditions are ideal because of the dense coconut stand, it is imperative that all the palms should be fixed with the barrier. The rats can also be killed by poison baiting using either single dose acute poisons like zinc phosphide or multiple dose anticoagulants like bromodiolone. Wax blocks of 0.005% bromodiolone (10g) are kept on palm crowns two times at an interval of 12

days at the rate of one out of every five palms.

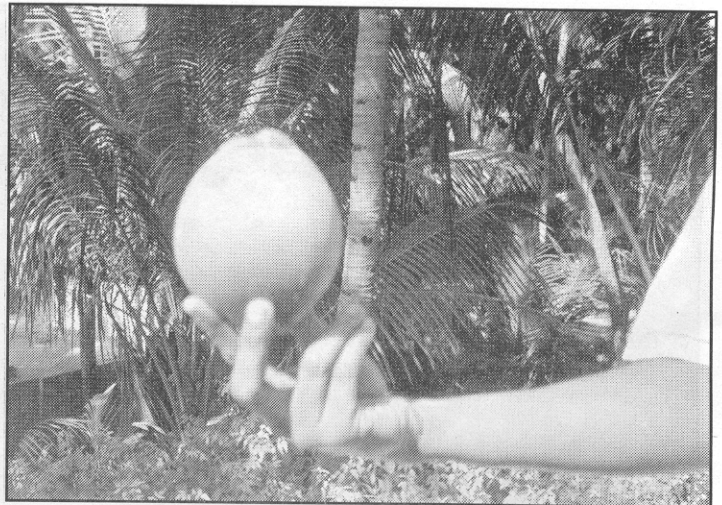
Apart from these pests, the coconut palms are also inflicted by diseases like bud rot and stem bleeding. During a recent visit of the author to Andrott revealed that the incidence of bud rot disease is on the rise especially in the case of Laccadive ordinary cultivar of coconut.

The bud rot disease, which is common in East and West coasts (Tamil Nadu and Kerala) of India, is sporadically seen in Kavaratti and Minicoy Islands. The disease is more frequent in young palms of age below 10 years, although palms of all ages are found to be infected. The disease is mainly concentrated in low lying areas like Chemmacherry and Keecherry of Andrott Island. It is imperative to carry out detailed investigation on the aetiology of bud rot in Andrott Island considering the magnitude of this malady.

If the disease is detected at the early stage of infection, it can be controlled by removing the affected spindle and all the affected tissues. The wound should be treated with 10 per cent bordeaux paste and covered with a polythene sheet or bucket or mudpot to prevent entry of rain water into the



*G.I. Sheet band fixed on palm to prevent rat damage*



*Fully matured Laccadive Micro coconut*



*A bud rot affected palm amongst healthy ones wound, till the next normal shoot emerges.*

As a prophylactic measure, all the healthy palms surrounding the diseased palm should be sprayed with 1 per cent bordeaux mixture on the spindle and at the base of 2-3 innermost leaves. Root feeding and stem injection of Akomin (16.8ml) and Calixin (21ml) were also found to be effective in protecting the palms. By adopting measures like weed control and wide spacing, in view of dense planting of coconut palms in the Island, the disease incidence and spread can be prevented.

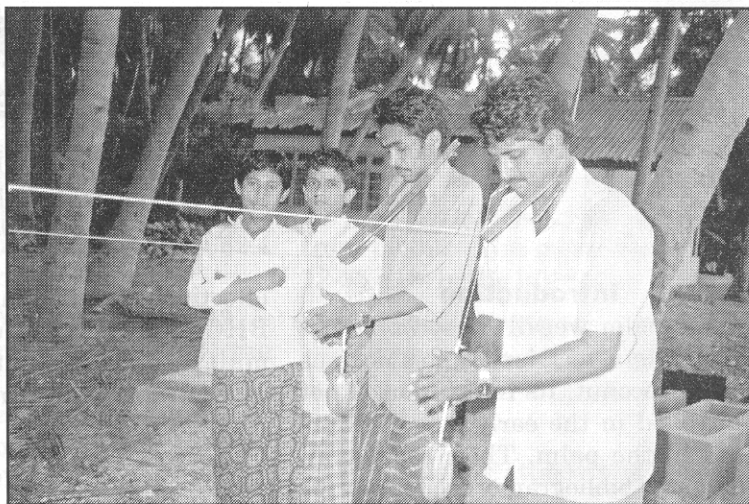
Control of bud rot disease is of utmost importance in the island because the occupation of the Islanders is mainly based on coconut cultivation and fishing. With the improvement in transport facilities and uncontrolled movement of planting material from mainland (Cochin, Calicut and Mangalore) to the islands of Lakshadweep, there is every possibility of introducing new disease/pest of coconut which may later attain

epiphytotic proportions. In this context one should be very cautious about the newly reported alarming pest of coconut, the eriophyid mite, which is posing a threat to coconut production in different parts of Kerala like Ernakulam, Thrissur and Calicut.

Therefore, it becomes mandatory that strict quarantine checks should be done at the ports of the islands otherwise the revenue generated by the islanders from the coconut could come under threat. Hence, a strict vigil is the need of the hour if the fragile ecosystem of Lakshadweep is to be preserved in its originality.

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*A traditional Island method of coir yarn spinning*

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