

Extension Folder No. 2

Arecanut Yellow Leaf Disease



LEAF SYMPTOM

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DISTRIBUTION AND SPREAD

Yellow Leaf Disease of arecanut known as 'Kattuveezhcha', 'Chovaked' etc., in Malayalam and 'Chandiroga' in Kannada is prevalent in Kerala, central regions of Maharashtra, certain parts of Tamil Nadu and Shimoga, Koppa, Sagar and Sringeri areas of Karnataka State. In Kerala, the disease is more severe in Idukki and Kottayam districts. About 80% of the palms become diseased within a period of four years from the appearance of the first symptom. The disease occurs in all types of soils and spreads without any specificity. Reduction in yield upto 50% over a period of three years after the expression of visible symptoms has been observed.

SYMPTOMS

The main symptom of the disease is yellowing of leaves. The yellowing starts from the tips of the leaflets of the outer leaves gradually extending along the margin to the middle of the lamina. The affected leaves often develop necrosis from their tips. In advanced stages, the leaves become smaller, stiff and pointed. The crown gets reduced and the palm is stunted giving very few or no nuts at all. Root tips become dark and they gradually rot. Kernel of affected nuts shows discolouration and later turns blackish. Such nuts are unfit for chewing and fetch only a lower price.

CAUSE OF THE DISEASE

Mycoplasmal Like Organisms are found to be constantly associated with the disease.

DISEASE MANAGEMENT

Since the disease is not amenable to control by conventional plant protection measures, other means of containing the disease have to be adopted. Yield of palms in the disease affected garden can be increased by adopting the following recommended management practices.

- Regular fertilizer application at the rate of 100 g N, 40 g P_2O_5 and 140 g K_2O per palm per year.
- Application of additional dose of superphosphate (1 Kg/palm) alone or in combination with lime (1 Kg/palm).
- Manuring with green leaf and compost @ 12 Kg each/palm.
- Irrigation at four days interval during summer months.
- Soil application of Blue Copper 50 + Thimet 10 G (100 g each/palm).
- Improving drainage and growing cowpea or cover crops in the interspace.
- Removal of diseased palms to prevent the spread of disease.

In disease affected areas, spindle bug is also a serious menace. This can be controlled by keeping polythene packets containing 2 g of phorate (Thimet 10 G) in the top most two leaf axils. The packets should be transferred to the youngest leaf axils as and when new leaves are produced. One phorate packet can be used continuously for eight months.

Though no variety or hybrid is resistant to the disease, *Mangala* variety is found to be less susceptible. Individual palms which do not contract the disease have also been identified. These can be used as source for planting material which are tolerant to Yellow Leaf Disease. Collection of seed materials may preferably be made from palms in disease free areas.

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