

# WATCH OUT FOR THESE COCONUT DISEASES

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Coconut, like all other crops, is subject to a number of diseases. Many of these diseases are simple with known causes and easy to control. But there are others more complex. These diseases cause a considerable loss to the crop. Here is a description of these diseases and the ways to check them.

## DISEASES OF THE CROWN

**Bud rot** : This widely spread disease normally occurs during monsoon and attacks mostly young palms. It is difficult to make out the disease in the early stages. Generally, the central spindle becomes pale, droops down and breaks followed by dull yellow colour of the surrounding leaves. Gradually the portions below the spindle start rotting emitting a foul smell.

The disease is primarily caused by a fungus, *Phytophthora palmivora*. Watch out for the first symptoms of the disease by carefully observing the palms in the early stages during the monsoon. Cut out all rotten parts and destroy and apply Bordeaux paste. Better mix 1 per cent BHC or DDT with the Bordeaux paste to check beetle attack. Spray the surrounding trees with 1 per cent Bordeaux mixture or any other copper fungicide to prevent spread of the disease.

**Leaf rot** : It is an important disease that affects coconut trees in the central and south Kerala. This is found along with the complex root (wilt) disease which is a major disease of palms in this area. The disease is caused by a fungus called *Helminthosporium halodes* which attacks the central spindle. The spindle leaves become black and shrivel up, especially at the tip. On drying, the rotted portion flies off in the wind, giving a fan-like appearance to the remaining portions of the leaf. This

is a characteristic look of a tree affected with the leaf rot disease. If the disease is unchecked, each successive young leaf meets the same end. As a result the tree becomes less productive. The disease is very severe during the monsoon when humidity is high.

Cut off the affected portions of the leaf and burn. Spray one per cent Bordeaux mixture or any other copper fungicide like Fytolan, Blitox, etc. at 0.5 per cent concentration or organic preparations like Dithane M-45 at 0.3 per cent three times a year — in January, April and September. Since the young leaves of the spindle get easily infected see that the spray fluid reaches the spindle.

**Grey leaf spot or blight** : A disease found commonly in all the coconut growing areas of the world, it causes grey specks or larger grey spots on the older leaves of the palm. The casual agent is a fungus *Pestalotia palmarum*. The disease is, however, not a serious problem. Improving drainage conditions, application of potassic fertilizers and spraying with Bordeaux mixture are the recommended control measures.

## DISEASES OF THE STEM

**Stem bleeding** : This disease is characterised by the oozing of a brownish, gummy fluid from cracks in several places in the stem. Underneath the bleeding patch, tissues are often seen rotting. The disease occurs mostly due to inadequate drainage, soil conditions unfavourable for good root growth and accumulation of salts in the root region. A fungus, *Thielaviopsis paradoxa*, also causes this disease.

Good management practices and timely application of manures helps in the control of the disease. Slicing away the bleeding

patches and applying Bordeaux paste or coal tar also helps in checking the spread of the disease.

### DISEASES OF THE ROOT

**Ganoderma wilt :** This disease occurs in Tamil Nadu, Andhra Pradesh and Karnataka. The early symptom of the disease is the exudation of reddish brown bleeding patches from the basal parts of the trunk. This may slowly proceed upward. The leaves start wilting from the outer whorl and then from the inside. The symptoms become more severe in summer. The tree finally dies.

You can control the disease to a large extent by applying systemic fungicides like Aureofungin and Vitavax in the early stages.

### DISEASES OF COMPLEX ETIOLOGY

**Root (wilt) disease :** This is the most important disease of coconut in Kerala resulting in the loss of about 30 crore nuts a year. It has spread over 2.5 lakh hectares and is found in south and central Kerala. Although it occurs in hilly areas, plains and the sea coast, it spreads very fast in the soils subject to periodical flooding. It thus fast spreads along river banks and in low lying areas.

Abnormal bending and drooping of leaves and leaflets, a blackening of flower spathes and nut fall are the early symptoms. Extensive root rot also is seen. Yellowing of older leaves is a major symptom that accompanies this disease. The palm becomes weak and the yield goes down to 10-80 per cent, but the tree never dies. The disease is caused due to a number of factors. Imbalance in the nutrition, especially calcium and magnesium and some minor elements play a major role in the disease incidence. Soil fungi, nematodes, bacteria and a virus-like organism also contribute to cause the disease.



No control for the disease has yet been found, but good management practices, including a rigorous manurial schedule and intercropping, can improve the yield even in the diseased garden. Highly diseased palms should be removed and healthy and

high yielding hybrid seedlings planted. This would help to take good yield. Growing fodder grass and maintaining small dairy units also help to get economic returns from such disease affected plantation.

**Thatipaka disease :** This disease is prevalent in Andhra Pradesh. The trees which suffer from this disease first show profuse growth and bear heavily for 2 to 3 years. The leaves become darker green, fasciated and more nuts are produced. Gradually the size of the crown gets reduced, the nuts become smaller, atrophied and barren. The tree finally goes completely barren. The spread of the disease is slow. The cause of the disease is still unknown.

By taking timely and prompt disease control measures, better and more nuts can be obtained from the palms. Effective plant protection measures will, no doubt, more than compensate for the expenses incurred on them.

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