
Coconut Research Institute
Sri Lanka

BUD ROT DISEASE AND ITS CONTROL



Bud rot is a fatal disease of coconut. It is caused by a fungus known as *Phytophthora palmivora*, which attacks the growing point of the coconut palm. Once the growing point is attacked, the palm is beyond recovery.

Young palms are particularly susceptible to this disease. As in the case of other fungal diseases, bud rot prevails when the humidity is high as such conditions favour the growth and dispersal of the causative fungus. Thus young palms, which have clustered leaves, and underplantations in which the young plants are shaded by the older palms are susceptible to the disease. The disease is often seen in river banks subject to flooding. Normally, the disease is observed sporadically in widely scattered palms.

In Sri Lanka, this disease is not widespread, but occasionally, in the wet zone, minor epidemics have been recorded.

Symptoms

The disease is detected when the bud breaks away due to the rot. Such palms are beyond recovery.

Close examination of the bud region would reveal discoloured patches at the base of the spear leaf, which is often withered. The surrounding tender leaves may also turn yellow.

In advanced bud rot, the spear leaf can be easily pulled out and will give a very foul odour.

Control

Infected young palms, in an advanced stage, should be cut and the crown burnt to destroy the fungus. If bud rot is detected early, the bud region should be thoroughly wetted with Bordeaux mixture or 1% copper fungicide.

When older bearing palms are affected, it is possible to keep the bunches until the nuts are matured. However, in such instances, it is important to wet the bud region with Bordeaux mixture to kill the fungus.

Preventive measures

Although it is extremely difficult to cure an affected palm prevention of the spread of the disease is possible. Healthy palms surrounding affected ones should be treated as a preventive measure. Treatment can be done using Bordeaux mixture, 1% copper fungicide or, more conveniently, using fungicidal bags.

If Bordeaux mixture or copper fungicide is used, the bud regions of the healthy palms should be thoroughly wetted once in 2 – 3 weeks. The fungicidal bag is more convenient and is prepared as follows:

- (i) Take a piece of jutehessian or gunny 15 cm square
- (ii) Place a handful of coir dust on this piece and tie up to make a small bag.
- (iii) Leave these bags overnight in 1% copper fungicide solution.
- (iv) Dry the bags for a few hours on the following morning.
- (v) Place one bag in the axil of the youngest leaf.
- (vi) Check the bag monthly and shift it to the base of the newly emerged spear leaf.

If heavy rain is experienced regularly, the bags will have to be dipped in fungicide more often. In dry weather, the bags have been found to keep the fungicidal properties for 4 – 6 months.

Bordeaux mixture

Bordeaux mixture is prepared as follows: (use earthenware vessels)

Copper sulphate	– 200 g
Quick lime	– 200 g
Water	– 25 litres

Dissolve copper sulphate overnight in 5 litres of water (suspend in a bag to facilitate dissolving). Suspend lime separately in 20 litres of water, and strain through a fine cloth. Add the copper sulphate to the lime, stirring vigorously.

Use immediately after preparation.

Copper fungicides

A large number of copper fungicides are marketed in Sri Lanka. Any one of these may be used as directed by the manufacturer.

Note: Both Bordeaux mixture and Copper fungicides are toxic and should be handled with care.

Prepared by the Coconut Research Institute, Lunuwila,
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