

COCONUT RESEARCH INSTITUTE



Leaflet No. 33

STEM BLEEDING IN COCONUT PALMS

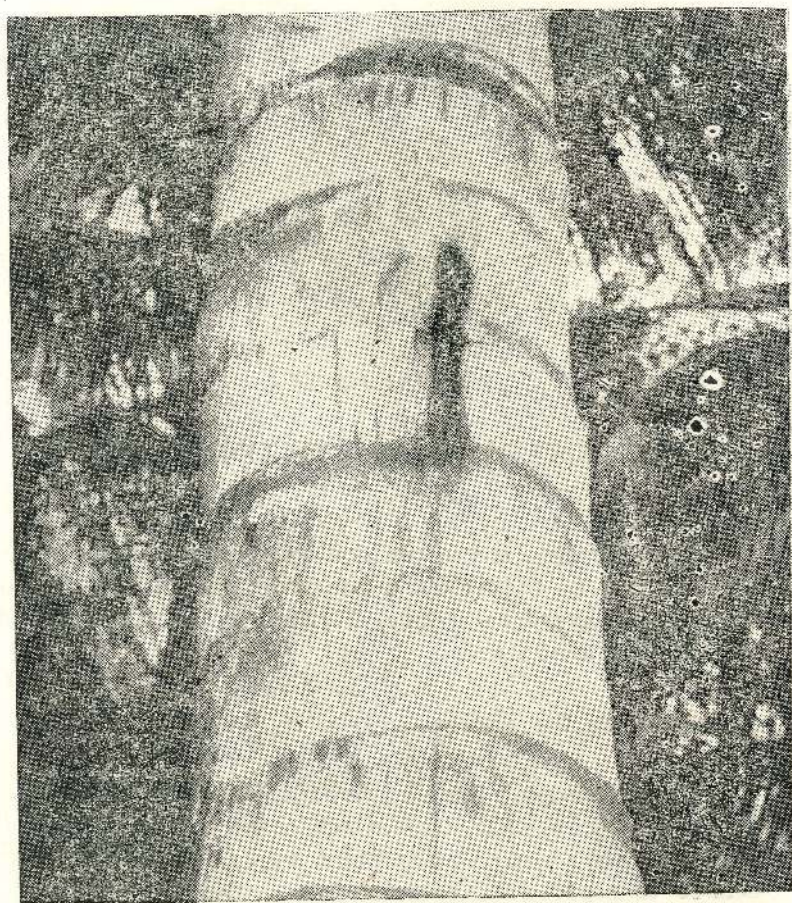
Stem bleeding can occur due to several causes. When the bleeding is the result of an infection of the fungus *Ceratocystis paradoxa* (Dade) Moreau, it is a disease of considerable importance.

Symptoms of the disease.

The presence of the disease is indicated by the reddish brown or rust coloured liquid which oozes out of longitudinal cracks in the stem. One or more patches of infection may coalesce to produce a large affected area. Old lesions cease to ooze and the dark brown fluid dries up and turns black. On cutting into the stem below the bleeding lesion, the tissue will be found to be rotted and yellow in colour, which latter turns black. Infection may occur anywhere but in young palms it is usually on the lower part of the trunk where cracks may develop. Young palms with bulbous bases with the large volume of soft tissue are more susceptible than palms with narrow thin trunks.

Distribution

The disease is present in all coconut growing districts. In the Batticaloa district, where the climate is drier the disease is less prevalent.



A primary bleeding spot which is a typical symptom of 'Stem bleeding'.

Effects of the disease.

The cracking of the 'bark' can be a normal feature of the coconut stem. The indication of the presence of the disease is the flow of sap from cracks. This exudation is viscous and makes a patch of perceptible thickness which later turns black. Should the stem bleed from other causes, the exudation is sappy and makes a reddish brown stain. These bleeding spots are numerous and found close together.

Control of stem bleeding disease.

There is only one practical method of control. The affected portions should be scooped out with the aid of a chisel. A slice of the apparently healthy tissue underlying the decayed portions should also be sliced off for the purpose of removing the advancing fungal matter that may be lodged therein.

After the scrapings are thoroughly done, the wounds should be painted with the fungicide, Bordeaux paste. After few weekly applications, when the bleeding is found to have ceased, the wounds could be dressed with a coal tar application.

In areas where the Red Weevil pest is present heavily, it is advisable to make only fewer applications of Bordeaux paste and apply the tar coating, early.

Bordeaux paste is prepared thus - dissolve one pound of copper sulphate in $\frac{1}{2}$ gallon water. Separately mix one pound of quick lime in $\frac{1}{2}$ gallon of water. Mix the copper solution and lime mixture, together.

Other causes of bleeding.

Bleeding can occur as a result of lightning, heavy manuring, heavy rains or floods, red weevil attack and fire as well. Stem bleeding has also occurred in plantations where a generally high water table keeps fluctuating.

The remedial measures are then relative to each condition that has to be corrected or eliminated, whereas in the case of lightning, a draining out of the flow through holes cut into the stem, has been found to be beneficial.

Reprinted - July, 1968.

