

# PLANT PATHOLOGY NOTES :

## NO. 2 COFFEE RUST DISEASE

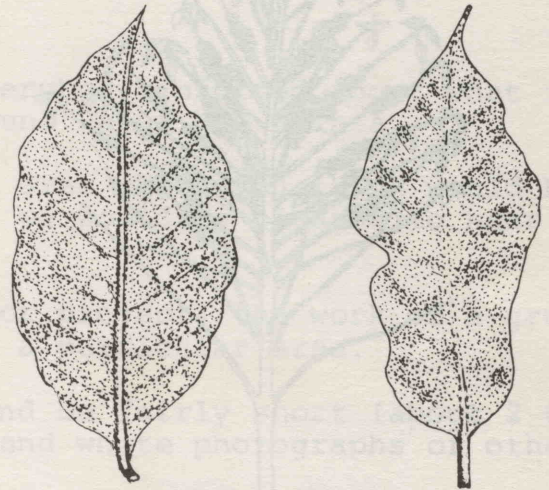
Coffee rust is the most serious disease of coffee and one of the classical plant diseases of world importance. Its appearance in Ceylon (now Sri Lanka) in 1868 caused the abandonment of plantations which had previously produced most of the world's coffee, and brought financial ruin to the growers. Coffee rust has since spread to many areas of the world causing devastation in most African and Asian coffee producing countries and in Brazil. Of the South East Asian coffee producers only Papua New Guinea is free of the disease. It is therefore essential that every effort is made by agricultural and quarantine staff within Papua New Guinea to maintain this situation.



*First symptoms of coffee rust*

### SYMPTOMS

Coffee rust is caused by a fungus called *Hemileia vastatrix*. This fungus is first visible as



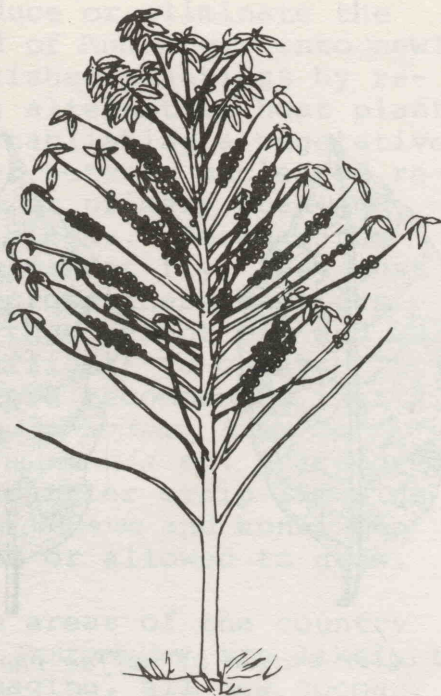
*Later stages of coffee rust*

a pale green spot on the leaf. Later, yellow-orange powdery pustules (blisters) are produced on the lower leaf surface. These may join to form irregularly shaped lesions (blotches). As the disease progresses, the centres of infected leaves turn dark brown and they die. This is followed by premature defoliation and die-back of the branches. When an attack is severe, a whole plantation may appear yellowish at a distance due to the orange rust spots on the leaves and to the general yellowing of the foliage before leaf fall starts.

### CONTROL

The most effective control is provided by spraying with copper fungicides. This, however, is an expensive procedure and in certain countries has been a commercial failure. To overcome this problem, much work is now being done on the

breeding of resistant varieties of coffee. This approach appears to provide the great hope for the future of the crop in affected countries.



*Defoliation and die-back*

PLANT PATHOLOGY  
NO. 2 COFFEE RUST

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SYMPTOMS

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