DISEASES OF SOME PLANTS IN TRINIDAD

With Notes on certain Aspects of the Biology of Curvularia lunata (Wakker) Boedijn.

INTRODUCTION

The aim of this project, at the outset, was to investigate the incidence of disease on weed species in Trinidad with a view, possibly, of making a survey of pathogens endemic in the island; or at least to gain some information on the prevalence of infection in certain plant populations. In the event, however, the collection is inadequate to allow any comparison of infection levels between communities, or of the frequency of any pathogen in a particular area. Attention was focused on Curvularia lunata when it was found that identifying and isolating a large number of fungi was becoming excessively time-consuming, and a detailed study of certain aspects of the biology of a single pathogen seemed more profitable.

The description of C. lunata on Ischaemum aristatum (L.) is believed to be a new host record and some notes on the host range of the species has been prepared both from personal observations and published literature. Curvularia is an important and widespread genus in the tropics and its pathological significance is briefly discussed.

This paper is presented in two parts: The first is devoted to descriptions of pathogens collected between October 1961 and March 1962 and in this respect a collection of herbarium specimens has been lodged with the Botany Department, I.C.T.A.

In the second section investigations on the biology and mechanisms of infection of C. lunata are described. There was a particular interest in the possibility of strain differentiation within the species but results from this work suggest that it is unlikely. The paper concludes with a trial comparing absolute alcohol and mercuric chloride as surface sterilants and assessing whether there are any other fungi associated with C. lunata in the leaf lesions on I. aristatum.