

INTRODUCTION.

The fungus diseases affecting cover crops is a subject to which little attention has hitherto been paid, at any rate in the West Indies. In his book "Fungi & Disease in Plants", E.J. Butler gives an account of several of the Indian cover crops, some of which are grown throughout the tropics. Apart from this book, references to cover crop diseases are confined to isolated papers published by Agricultural Stations etc., or to a few lines in general textbooks on plant diseases.

Although certain diseases may accompany a crop wherever it occurs, others may be confined to a relatively small locality, due either to the diseases originating in this area, or to the conditions necessary for infection being more favourable than in other countries.

Concerning the cover crops in use in Trinidad, no regular study of their diseases has yet been made. By growing the principal crops under observation, however, a few years should be sufficient to discover the organisms or conditions causing the more important diseases, and to indicate any possible means of control.

The chief cover and green manure crops grown in the island are:-

<u>Stizolobium aterrimum.</u>	Bengal or Velvet Bean.
<u>Canavalia ensiformis.</u>	Sword Bean.
<u>Cajanus indicus.</u>	Pigeon Pea, (chiefly var. bicolor).
<u>Crotalaria juncea.</u>	Sunn Hemp.
<u>Tephrosia spp.</u>	
<u>Phaseolus mungo.</u>	Woolly Pyrol.

The first four of these, together with ^{Cow pea} Vigna catjang, have been studied during the past eight months. Bengal beans, which are used especially on the larger estates, form an excellent cover crop and a cattle-food. Crotalaria juncea has been introduced only recently, and as a cover crop it is very quick growing. Cajanus indicus is used for green manure, for a cover crop, for producing shade for young cocoa trees etc., and the seed are eaten as a vegetable. Canavalia ensiformis is grown for green manure and to produce

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cover, especially under cocoa and coconut trees. Vigna catjang forms a good cover crop, and a green manure crop, and the pods are used for human consumption.

For the purpose of carrying out observations on these crops, they were grown in a field on the Imperial College of Tropical Agriculture farm. In the first instance the percentage germination of the seeds sown was estimated, comparing the field results with those obtained in the laboratory. However, owing to the poor nature and extreme variability of the soil in the field, and the bad quality of the seed used, the results obtained were of no great significance. As the crops developed, observations were made on the different diseases as they occurred, and those found were investigated as far as their importance seemed to warrant, and as time allowed. Certain suggestions have also been made as to further lines of enquiry, which might be followed up next season.