1. GENERAL INTRODUCTION

Cladosporium fulvum (Cooke) - leaf mould - is reported to occur wherever the cultivated tomato, Lycopersicon esculentum (Mill.) is grown. Where atmospheric conditions are suitable, the fungus occurs in epidemic proportions and can result in complete loss of crop.

In temperate climates the tomato crop is frequently grown under glass and without proper control of watering and ventilation, leaf mould can be a serious limiting factor to tomato production.

In Trinidad in the wet season, the high humidity allows the fungus to spread rapidly and it may easily become epidemic. This is no doubt one of the reasons why the more common cultivated tomatoes are not grown entirely in the wet season. During the dry season the fungus is less likely to be serious although in periods of abnormal rainfall outbreaks may occur. Overhead watering may also lead to serious infection by the disease.

In temperate regions, where tomatoes are grown under glass, copper fungicides may give adequate control, but spraying operations must be undertaken frequently to be effective and this inevitably adds to the expense of producing the crop. In Trinidad, the efficacy of spraying as a means of control in the wet season is greatly reduced due to the frequency of showers which remove the fungicides shortly after application.

Resistance to the disease is found in other species of the genus Lycopersicon - notably in L. pimpinellifolium (Mill.) and L. peruvianum (Mill.). In general, the former has proved a more suitable parent for the production of disease resistant tomatoes and many crosses have been

made with L. esculentum varieties which have yielded useful resistant progeny.

Possibly some of these varieties might be suitable for growing in Trinidad but there are obvious advantages in breeding such varieties in the locality in which they will be grown. In the earlier generations from such a cross there will be a wide range of polygenic characters affecting yield etc., which, with appropriate selection should give a variety with a better adaptation to Trinidad conditions.