The problem of root disease in plants has in the past suffered from neglect. This has been due, in part at least, to its complex nature and to the technical difficulties which arise when any solution is attempted. Of recent years, however, considerable attention has been paid to those fungi which inhabit the soil. In the genus Rhizoctonia, R.bataticola (Taub.) Butler (Macrophomina phaseoli (Maubl.) Ashby) has attracted increasing attention from mycologists, especially in the tropics. The present knowledge of this fungus in many respects is scanty, and information as to its parasitism under different conditions is necessarily of interest both from pathological and agricultural points of view. From the divergence of opinion expressed in the various scientific publications, it is evident that this root disease is now a major problem in tropical agriculture. The existing literature largely contains records and observations on the wide spread nature of the disease. But little conclusive experimental work seems to have been done.

The present paper is an account of work undertaken at the suggestion of Dr. Briton-Jones, and was carried out at the Imperial College of Tropical Agriculture during the session 1928-29. The results obtained should be considered only in the nature of a preliminary investigation.