THE OCCURRENCE OF LEPTODISCUS TERRESTRIS GERDEMANN IN THE TEA GARDENS OF ASSAM

Very often, in the field on dead seedlings of Cajanus cajan and Centrosema pubescens, a Melanconiaceous parasite was observed in tea estates around Tocklai Experimental Station. The fungus was identified as Leptodiscus terrestris Gerdemann.

The fungus was first described ten years ago as a new genus from United States of America causing damping off and root rot of various Leguminosae.

The present account, as far as the author is aware, is perhaps the first report on the occurrence of Leptodiscus from the old world.
The following is a brief description of the fungus from a composite local collection:

The fungus appears as a yellowish-green growth on the surface of incubated roots and the imperfect form is produced abundantly in the field as well as under laboratory conditions. The sclerotia which are deep fuscous brown and fusiform are produced rather tardily in the field.

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FIGS. 1-3. Leptodiscus terrestris Gerdemann. Fig. 1. Spores borne on the surface of the stroma. Fig. 2. Showing the plate-like stroma. Fig. 3. Conidiophores.

The fruit body is entirely superficial, olive green or deep citron yellow to dilute brown in colour, developing as a thin plate-like structure somewhat reminiscent of the peltate scutellum of the Microthyriaceae. The plates are rather irregular in outline and measure up to 1 mm. in diameter. Conidiophores are obsolete, conidia are produced on the upper surface of the stromatic cells. The conidial mass is pale yellowish-brown in colour and is somewhat gelatinous. The conidial wall is hyaline, smooth, the contents are granular, pale yellow, when mature turn dilute brown. Conidia are 2-celled when old, allantoid, with a thin filamentous seta at either end. The conidia measure 30-34 (-36) × 4-6 (-7) μ and the setae 8-20 μ long.

The fungus was found pathogenic to seedlings of Cajanus cajan and Centrosema pubescens which are grown as green crop and cover crop respectively in tea estates of Assam.