LEAF BLIGHT OF JOWAR (SORGHUM VULGARE L.)
CAUSED BY CURVULARIA PENNISETI (MITRA)
BOEDIJN VAR. SORGHI FROM INDIA *

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(with 2 figs.)
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INTRODUCTION

Of the 42 million acres under jowar (Sorghum vulgare L.) in India, Maharashtra state claims 14 million acres both under Kharif and Rabi jowars. JOWAR forms one of the most important cereal food crops of India and Maharashtra. Although jowar is affected by a variety of major diseases, it also gets affected by other diseases including Curvularia blight, which occasionally causes serious damage.

PETCH (1921) probably was the first to report Acrothecium lunatum (= C. lunata) on Sorghum from Ceylon. KULKARNI (1922) reported Acrothecium sp. for the first time in India. Later BUNTING (1927) from Gold Coast, WALLACE (1930) from Tanganyika, GOIDANICH (1939) from Italy, PORTER & RICE (1943) from U.S.A., PADWICK (1948) from India, LUTTRELL (1950) from Georgia, SACCAS (1954) from French Equatorial Africa and SWARUP (1955), from Kansas State, U.S.A. also reported Curvularia on Sorghum. NIGAM (1936) studied the effect of light and temperature on this fungus. Most of these authors considered this fungus as C. lunata.

SYMPTOMS

The disease incited infection on leaves and ears. It manifested in form of irregular yellow spots, becoming brownish and coalescing together to form patches and blight. Affected leaves became dry.

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Ears were small and on grains mouldy growth which distorted grains into bluish powder, and at times abnormal development could be noticed.

**Fig. 1.** Affected leaves showing irregular spots which resulted into blight symptoms.

### Morphology of Pathogen

The fungus could easily be isolated from the affected parts. The mycelium, when young, appeared as pale, irregularly branched, later becoming light to greyish brown and its width being 3—7 μ. Chlamydospores were intercalary, terminal or in chains, occasionally developing into micro-sclerotia. Conidiophores were rigid, straight, slightly bent, septate, dark brown but light brown at the tips which were rounded or having small projections for bearing conidia 3—8 on each conidiophore. They measured 75 μ (58—189 μ) × 3 μ (2—5 μ). Conidia were mostly clavate, elongated, straight or bent at the terminal cell, with 2—3 septa. The third cell from the base was broader and darker. Conidia were olive brown and measured 24 μ (13—34 μ) × 13 μ (9—17 μ) from P.D.A. and 22 μ (18—32 μ) × 12 μ (9—15 μ) from the host.

### Host range

The fungus was pathogenic on *Crotalaria juncea* L., *Trigonella foenum-graecum* L., *Dolichos lablab* L., *Zea mays* L., *Pennisetum typhoideum* STAPF., besides *Sorghum* and non pathogenic on a variety of other hosts reported by the authors in their earlier paper on *Curvularia* from *P. typhoideum*. 