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Abstract: To study the variability in *D. maydis* sample isolates from Ranchi, Dumka and Hazaribag were studied in detail. The pathogen was collected, purified and isolated and pathogenicity of all the isolates was proved. Mycelia of the fungus were immersed, conidiophores were olivaceous, simple, branched arising singly or sometimes in groups of 2-5 and measured 55- 187x39µ. Conidia were fuliginous to light olivaceous, measured 20-21x8-18µ, straight to curved, widest in the middle and tapered towards rounded ends, 2- 11 septate. The colony colour varied from dull white to light grey and dark grey. Aerial mycelia were profused, scant and sometimes scattered. Dumka isolate had slower growth rate while rest two isolates from Ranchi and Hazaribag had comparatively faster growth rate. Conidial size of all the three isolates varied from 48-98µm X 9-17µm and number of septa varied from 4-9. Losses due to this disease has been estimated ranging from 14.4 to 28.81 per cent depending upon the comparative susceptibility of the variety. Out of 140 genotypes/varieties 97 genotypes showed resistant reaction against *D. maydis* under artificially inoculated conditions at R.A.C. farm. Minimum disease incidence of 1.95 per cent was observed on 15th June. It progressively increased and weekly increase in disease incidence on 13th July was maximum 32.45 per cent. In the year 2006 and 2007 during this period average temperature was 26.9 and 26.750C, average humidity was 83.7 and 72.2 per cent, rainfall 240.5mm and 26.8 mm and number of rainy days were 6 and 2 respectively. Minimum disease intensity of 2.35 was observed when crop was sown on 20th May. There was gradual increase in the disease severity as the sowing of crop was delayed and maximum disease intensity of 4.45 was observed when crop was sown on 22nd July. Plant spacing 75cm X 20cm with plant population of 66.7 thousand/ha was found to be best. It showed resistant reaction against disease and gave maximum grain yield. Dual culture proved antagonistic potential of bioagents *Gliocladium virens*, *Trichoderma harzianum* and *T. viride*. Against Ranchi and Hazaribag isolate *T. harzianum* was best while against Dumka isolate *T. viride* was best. Amongst botanicals *Azadirachta indica* (leaves crude extract) was found to be best followed by *Allium cepa* and *A. sativum*. In vivo seed treatment with Carbendazim @2.0g/kg of seed followed by spraying of Companion (Carbendazim + Mancozeb) @ 2.0 g/lit was found to be most effective. Under in vitro condition Carbendazim at 200 ppm and Companion (Carbendazim +Mancozeb) at 2000 ppm were most effective against Ranchi and Hazaribag isolate while against Dumka isolate Carbendazim at 200 ppm and Companion (Carbendazim + Mancozeb) and Mancozeb at 2000 ppm were found to be most effective.

Description: VARIABILITY IN *Drechslera maydis* AND MANAGEMENT OF MAYDIS LEAF BLIGHT

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