

SCLEROTIAL POPULATION OF *MACROPHOMINA PHASEOLINA* (CAUSE OF SUNFLOWER CHARCOAL ROT) IN BARANI AREA SOILS OF PUNJAB, PAKISTAN

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Efforts are underway to introduce sunflower as oil seed crop in barani areas of Punjab. Charcoal rot caused by *Macrophomina phaseolina* has appeared as devastating disease in experimental fields. Therefore, a survey of prospective barani areas was conducted to determine the population of the pathogen in the soil. Samples of soil collected from different fields (Sunflower, millet Peanut, fallow) of fourteen selected key locations were plated on a selective medium (Cloroneb-mercuric chloride - rosebengal agar) and viable sclerotial population enumerated. All the key locations have shown the presence of viable sclerotia of the fungus suggesting possible infection of the sunflower crop by the pathogen on introduction in these areas. Over all viable sclerotial population ranged from 0.4 sclerotia per gram of soil in a millet field at Shahpoor to 25 sclerotia per gram of soil in a sunflower field at Islamabad. Sunflower fields in general had significantly higher sclerotial population than any other type of field. This study stresses the need for concerted work on resistance against charcoal rot before release of sunflower varieties to farmers in these areas.