

DETERMINATION THE OPTIMUM INOCULATION LEVEL OF *SPHACELOTHECA SORGHI* TO INDUCE HIGHEST SORGHUM COVER SMUT DISEASE

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ABSTRACT

This study was conducted to determine the optimum inoculation level of *Sphacelotheca sorghi* teliospor to utilize in plant breeding programme for this disease. That Four teliospore levels of *Sphacelotheca sorghi* were evaluated 0.1, 0.250, 0.5 and 1.0 (gram teliospores/ 100grams seeds) for infecting five sorghum cultivars (Sugar, Speed, Jumbo, New gerx and Super den) .

The results revealed that all teliospore inoculation levels induced clear infection, but the concentrations 0.5, 1.0 gm /100gm seeds showed the highest disease incidence with no significant differences between each others .So the concentration (0.5 gm teliospores / 100 gm seeds)was recommended for breeding programmes for resistance to this disease in future investigations .

Key words: *Sphacelotheca sorghi* , COVER SMUT DISEASE , sorghum.