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RESEARCH PAPER

Management of stem and root rot of sesame

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Abstract : Out of 27 entries evaluated against stem and root rot caused by *Macrophomina phaseolina*, only three entries *viz*., IC–205477, IC–205506 and Krishna were identified as resistant. Dates of sowing trials revealed that early sowing favored Macrophomina stem and root rot. Multiple regression equation between disease index and weather variables exhibited strong relationship among the different components of epiphytotics during 2002-03 and 2003-04 crop seasons (R^2 =0.989 and 0.985). This disease appeared during second week of July in the field. Maximum apparent infection rate of 0.122 unit/day and 0.118 unit/day were calculated at July 25, during both years of experimentations, respectively. The mean temperature 26.86 to 28.93^{0}C, mean relative humidity 77.49 to 79.4 per cent, rainfall 5.54 mm and 13.24 mm and 12 and 14 number of rainy days were favorable for maximum disease development. Seed treatment with a mixture of carbendazim 50 WP (0.1%) and thiram 75 WP (0.15%) recorded minimum PDI of 11.15 per cent and 9.91 per cent and highest seed yield of 637 kg/ha and 646 kg/ha during above mentioned crop seasons. First spray of carbendazim 50 WP (0.05%) + second spray of *T. viride* (10^7 spore/g) were found to be most economical for the management of the disease.

Key Words : *Sesamum indicum*, Stem and root rot, *Macrophomina phaseolina*, Management

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