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RESEARCH ARTICLE :

Assessing the effects of varied temperature, pH and wave length of light on the growth and sclerotial formation of *Rhizoctonia solani* Kühn

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Rhizoctonia solani, Temperature, pH, Wave length of light

SUMMARY : An experiment was conducted to find out variation in isolates of *Rhizoctonia solani* Kühn collected from six different district of Chhattisgarh,based on radial mycelial growth and sclerotial production. Five isolates of *Rhizoctonia solani* were grown at different levels of temperature, pH and wave length of light on potato dextrose agar (PDA). It was observed that optimum temperature and pH for growth and scierotial production varied among the isolates.The maximum mycelial growth of all isolates was found at 30°C. At 35°C, only RS-CG-16-04 produced maximum microsclerotia/plate. The optimum temperature for sclerotial production of the isolates RS-CG-16-01, RS-CG-16-05, RS-CG-16-06 and RS-CG-16-07was 30°C and for the isolate RS-CG-16-06 and RS-CG-16-07 was 35°C. The optimum pH for maximum radial growth was pH 8 and closely followed by pH 7 for all the isolates.On an average among all the isolates maximum number of sclerotia was produced at pH 7.White light was most suitable for radial growth and sclerotia formation of this fungus and is closely followed by green and blue light because there was significant difference in radial growth and sclerotia formation of different isolates of *Rhizoctonia solani* at different colour or spectrum or wave length of light.

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