

**Research Article**

## **Morphological and Pathogenic Variability in *Sclerotium rolfsii* Sacc**

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### **Abstract**

Variability among 21 isolates of *Sclerotium rolfsii* Sacc collected from six host plants in different locations of Ranchi was studied. All the isolates varied in their radial growth ranging from 77.3- 90.0 mm after 72 h of incubation producing extra white to off white colony with fluffy to compact texture. Variability in morphology of sclerotial bodies were recorded after 30 d of incubation. The number of sclerotia per plate varied from 38-485. The colour of sclerotia was light brown to dark brown. Sclerotia were round, spherical or irregular in shape and size ranged from 0.78-2.09 mm weighing (10 sclerotia) ranging from 3.16-14.87mg. Arrangement of sclerotia in the Petri plate was either peripheral, central or uniformly distributed and took 6-14 d for maturity. Cross inoculation studies of the pathogen resulted varied levels of pathogenicity with different hosts. Among twenty one isolates, Isolates of potato, chickpea and EFY-6 affected all the hosts and were found to be highly virulent. Isolates EFY1, EFY 2, EFY 9, S 2, GN 3, FB 1 were found to be moderately virulent, whereas, isolate EFY3, EFY4, EFY5, EFY 7, EFY 8, EFY10, FB2, GN1, GN2, GN4, GN5 and S1 were found to be least virulent. In cross inoculation studies, three host *viz.*, french bean, chickpea and groundnut were highly susceptible while potato was moderately susceptible and soybean and elephant foot yam were non susceptible.

**Key words:** Hosts, isolates, *Sclerotium rolfsii*, variability

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