

Standardization of inoculation techniques for resistance evaluation against stem rot in groundnut caused by *Sclerotium rolfsii* Sacc.

Sadia Ameen, M Suresh, K Vemana and G V Suneel Kumar

Department of Plant Pathology, Acharya N G Ranga Agricultural University,
Agricultural College, Bapatla-522101, Andhra Pradesh, India.

ABSTRACT

Sclerotium rolfsii Sacc. (Teleomorph: *Athelia rolfsii*) is a necrotrophic, soil-borne fungus that causes stem rot in groundnut. The pathogen survives as sclerotia in the soil for several years and causes infection by the germination of sclerotia when the conditions are congenial. Persistence of the pathogen in soil and wide host range (about 500 species) often limits the effectiveness of chemical and cultural control of stem rot disease. Developing and planting resistant germplasm has been recognized as an effective disease management strategy. To quickly identify resistance in groundnut accessions against the stem rot pathogen, it is essential to standardize the technique. Considering its significance, an experiment was carried out under greenhouse conditions using susceptible check (K6). Different inoculation methods were imposed among which modified slurry method identified and standardized in this study has proven to be efficient, resulting in highest disease incidence (99.07%). These standardized inoculation methods can be utilized in breeding programs aimed at developing stem rot-resistant groundnut cultivars.

Keywords: *Groundnut, Necrotrophic Sclerotia and Stem off*