

Histopathological Evaluation of Soybean (*Glycine max* (L.) Merr.) Strains Resistance to *Sclerotium rolfsii* Disease

Title	Histopathological Evaluation of Soybean (<i>Glycine max</i> (L.) Merr.) Strains Resistance to <i>Sclerotium rolfsii</i> Disease
Author Order	3 of 4
Accreditation	2
Abstract	Sclerotinia infection of stem and leaf of soybean <i>Glycine max</i> (L.) Merr. caused by the fungal pathogen of <i>Sclerotium rolfsii</i> has recently become more important in the Indonesian soybean production area. This study aimed to evaluate the level of resistance and intensity of infection by <i>S. rolfsii</i> in four soybean strains. The research was arranged in a factorial completely randomized design. The observed variables include the anatomy characteristics of leaves and stems of soybean and disease intensity caused by <i>S. rolfsii</i> . The data were analyzed quantitatively with the Analysis of Variance (ANOVA) at 95% and 99% confidence level, followed by the Least Significant Difference Test (Fisher's LSD) at the level of 5%. Soybean leaves and stem anatomy inoculated by <i>S. rolfsii</i> showed a decrease in the stomatal density, epidermis thickness, and mesophyll thickness as well as a damaged cuticle, damaged stem epidermis, and swollen stem cortex. Four strains inoculated by <i>S. rolfsii</i> showed a higher disease intensity of 40%-80% compared to the resistant cultivar ('Dering') and susceptible cultivar ('Wilis'), showing disease intensity of 20% and 40%, respectively.
Publisher Name	Universitas Muhammadiyah Yogyakarta
Publish Date	2022-02-28
Publish Year	2022
Doi	DOI: 10.18196/pt.v10i1.8907
Citation	
Source	PLANTA TROPIKA: Jurnal Agrosains (Journal of Agro Science)
Source Issue	Vol 10, No 1 (2022)
Source Page	62-68
Url	https://journal.umy.ac.id/index.php/pt/article/view/8907/7129
Author	Dr JUNI SAFITRI MULJOWATI, S.Si, M.P.