

The Effect of Leaf Trichome Density on Several Genotypes of Soybean on the Intensity of Attack of Leaf Rust Disease (Phakopsora pachyrhizi)
Supervised by Iqbal Erdiansyah, SP, MP

Ihza Inafa Ulyana
Program for The Study of Food Crop Production Technology
Department of Agricultural Production

ABSTRACT

Leaf rust is an important disease in soybeans caused by the fungus Phakopsora pachyrhizi. This disease is one of the causes of the decline in soybean production reaching 30-60%. Morphological characters possessed by plants can be used as a defense system to reduce the intensity of damage caused by pests and diseases such as trichomes. This study aimed to determine the effect of leaf trichome density on several soybean genotypes on the intensity of leaf rust disease. This activity was carried out in Tegal Gede Village, Summersari District, Jember Regency from December 2020 - March 2021 using a non-factorial completely randomized design with 7 soybean genotypes as treatment and consisting of 4 replications. The 7 genotypes are GHJ 1, GHJ 2, GHJ 3, GHJ 4, GHJ 5, Anjasmoro and Ringgit. Data analysis using SPSS software, if it shows a significantly different value then further tested using the LSD Test (Least Significant Difference) and Spearman Correlation Test to determine the correlation relationship. Observation of leaf rust using the IWGSR (International Working Group of Soybean Rust) method. The results showed that based on the analysis of the Spearman correlation test, the density of abaxial trichomes did not affect the intensity of leaf rust disease. The significance value obtained is 0.142 where > 0.05 .

Keywords: Soybeans, Phakopsora pachyrhizi, Trichome