**Response Some Genotype Soybean (*Glycine max* (L.) Merrill) Against Disease Leaf Rust (*Phakopsora pachyrhizi*)**

*Supervised by Rudi Ward, S. Pd, M.Si and Dr. Ir. Nurul Sjamsijah, MP*

Risa Yuniar Perdana Putri

*Study Program of Food Crop Production Technology*

*Majoring of Agricultural Production*

## *ABSTRACT*

*Leaf rust is one of the main diseases that attack soybean plants caused by the fungus Phakopsora pachyrhizi. The decrease in production yields caused by leaf rust disease is 10-90%. This study aims to determine the response of several soybean genotypes to leaf rust disease. This research was carried out for 4 months from December 2020 until March 2021. All activities were carried out at the Plant Protection Laboratory and Screen House Jember State Polytechnic. This study used a completely randomized design with 7 genotypes of soybean as treatment including GHJ1, GHJ 2, GHJ 3, GHJ 4, GHJ 5, Anjasmoro, Ringgit. Observation parameters included number of leaves, leaf surface area, IWGSR, seed weight per plant. The data were analyzed by MANOVA then further tested for 5% BNT using SPSS 23.0 software. The results showed that the genotypes GHJ 1, GHJ 2, GHJ 3, GHJ 4, GHJ5 had resistance to leaf rust disease, Anjasmoro variety had moderate resistance, Ringgit variety had the lowest resistance to leaf rust disease, which was moderately susceptible.*

*Keyword: Soybean, Phakopsora pachyrhizi, IWGSR*