

Keragaan Beberapa Galur Kedelai (*Glycine Max*) Calon Varietas Unggul Pada Generasi F8 Hasil Tinggi Di Kabupaten Jember *Performance of Several Soybean Lines (*Glycine Max*) as Candidate Superior Varieties in the High Yield F8 Generation in Jember Regency.* Supervised by Dr. Ir. Nurul Sjamsijah M.P.

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ABSTRACT

*Soybean (*Glycine max L.*) is one of the legume crops that is widely consumed by the public. Soybeans are an important food commodity and rank third in primary commodities besides rice and corn. Soybean plants were found in eastern regions such as China, Korea, and Japan, and then developed in other countries such as America, since 2838 AD. Soybean plants have high vegetable protein content and also contain antioxidants that play a role in inhibiting the aging process. According to data from the Central Statistics Agency (BPS) up to December 2023, domestic soybean production is around 555,000 tons, while national demand reaches 2.7 million tons. National soybean consumption, which continues to increase every year, is not accompanied by the growth of national soybean production, resulting in imports from abroad. Therefore, superior lines are needed to meet national demand. The research was conducted in Jember Regency, Balung District, Karang Duren Village at an altitude of 89 meters above sea level (MASL) with temperatures ranging from 24°C to 32°C. The research was conducted from August to November. The design used in this research was a non-factorial Randomized Block Design (RBD) consisting of 5 lines and 2 varieties as controls, repeated 4 times. The results of the significant analysis of variance were followed by further tests using DMRT at a 5% level. The conclusion from the experiment on the performance of several high-yielding soybean lines (*Glycine max*) F8 in Jember Regency shows that the GHJ-4, GHJ-2, and GHJ-3 genotypes are superior lines in terms of yield per hectare and maturity age. From the tested ages, an average of 75 days was obtained with yields per hectare of 4.276 tons for the GHJ-4 genotype, 4.267 tons for the GHJ-2 genotype, and 4.238 tons for the GHJ-3 genotype.*

Key Word : *Keywords: Performance, Strains, Soybeans (*Glycine max L.*), Yield.*