

**Pengaruh Konsentrasi Dan Lama Perendaman GA3 Pada Benih Jagung Kedaluwarsa Terhadap Vigor Dan Fase Vegetatif.** *The Effect of GA3 Concentration and Soaking Time in Expired Corn Seeds on Vigor and Vegetative Phase.* Supervisor Ir. Rahayu, M.P.

**Muchammad Dzulkifli**

*Study Program of Seed Production Technique  
Department of Agricultural Production  
Program Studi Teknik Produksi Benih  
Jurusan Produksi Pertanian*

**ABSTRACT**

*Storing corn seeds for a long period of time will decrease the quality of corn seeds, it is necessary to improve the quality of corn seeds that have been stored for a long period of time. One effort to improve the quality of corn seeds is by soaking GA3 on corn seeds that have decreased quality. This research was carried out from March to May 2023 on the grounds of the Jember State Polytechnic. Using a factorial randomized block design (RAK) with three replications, the first factor was GA3 concentration consisting of 200 ppm, 400 ppm and 600 ppm. The second factor is the length of soaking in GA3, which consists of 4 hours, 6 hours and 8 hours. Then the data was analyzed using the f test (Anova) and continued with the DMRT test with an error rate of 5%. The results showed that the GA3 concentration gave very significantly different results in maximum growth potential with an average height of 65.13% and in the stem diameter parameter at 4 WAP with a value of 2.16 cm. This concentration treatment had a significantly different effect on germination capacity with a value of 62.69%; growth speed with a value of 29.20%; Simultaneity grew with a value of 54.55%; vigor index with a value of 49.87%; wet weight with a value of 625.52g; and dry weight with a value of 126.62g. The long soaking treatment for GA3 gave results that were not significantly different (ns) for all observation parameters. The two treatment interactions between concentration and soaking time for GA3 gave results that were not significantly different (ns) in all observed parameters.*

*Keyword: Corn Seed, Expired, Gibberellins.*