

Identifikasi Penyakit dan Mutu Benih Jagung (*Zea mays* L.) Kadaluarsa dari Perlakuan Matriconditioning dan Minyak Atsiri. Diseases Identification and Corn Seed Quality (*Zea mays* L.) Expired of Matriconditioning and Essential Oil Treatments. Supervised by: Leli Kurniasari, S.P., M.Si

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ABSTRACT

*Matriconditioning and essential oils are seed treatments before planting which can improve the quality and production of corn (*Zea mays* L.) seeds which have experienced a decrease in quality due to expiration. The purpose of this study was to determine the effect of matricontioning ingredients and types of essential oils on improving the quality and production of corn seeds that had expired for 1 year. This research was conducted in October 2022 – January 2023 at the Seed Production Engineering Laboratory of the Jember State Polytechnic and rice fields in Tegalgede Village, Sumbersari District, Jember Regency. This study used a Completely Randomized Design (CRD) and Randomized Bock Design (RBD) with 2 factors and 3 replications. The first factor is matriconditioning which consists of 3 levels, namely C1 = husk charcoal, C2 = sawdust, and C3 = bricks. The second factor was the type of essential oil which consisted of 2 levels, namely M1 = clove oil, and M2 = citronella oil. The results showed that the matriconditioning treatment and essential oils gave a significant effect on almost all parameters. Interaction of matriconditioning bricks and lemongrass oil gives the best score at 0.00% infection percentage.*

Key words : *matriconditioning, essential oils, and, *Zea mays* L.*