

**Evaluasi Keragaman Genetik Dan Heritabilitas Beberapa Galur Jagung (*Zea Mays L.*) Untuk Identifikasi Galur Potensial Di Pt Surya Kencana Agrifarm Sejahtera** (*Evaluation of Genetic Diversity and Heritability of Several Corn Lines (*Zea Mays [L.]*) for Identification of Potential Lines at PT Surya Kencana Agrifarm Sejahtera. Supervisor by Putri Santika, S.ST, M.Sc*

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**ABSTRACT**

*Corn (*Zea mays L.*) is a strategic commodity that plays an important role in meeting national food and feed needs. Efforts to increase corn productivity can be carried out through plant breeding, one of which is by developing lines resulting from three-way crosses. This study aims to evaluate the potential of four three-way cross corn lines compared to two single-cross reference lines, as well as to assess the level of genetic diversity and heritability values of several agronomic traits and yield components. The study was conducted from June to October 2025 in Antirogo, Sumbersari District, Jember Regency, East Java. The study used a non-factorial Randomized Block Design (RBD) with six genotypes and three replications. The parameters observed included growth traits, yield components, yield potential, genetic diversity, and heritability. The results showed that the TS06 and TS12 lines resulting from three-way crosses had better potential in several traits than the single-cross reference lines. The level of genetic diversity in all genotypes was included in the narrow category, which indicates that the genotypes were homogeneous and genetically stable. The high heritability values for all parameters indicate that the observed characters are more influenced by genetic factors than environmental factors, so there is a high chance of being passed on to the next generation.*

**Keywords :** *Zea mays L, Genetic Diversity, Heritability, Three-way cross.*

