

Analysis of Vegetative and Generative Character in Seven Maize (*Zea mays* L.) Candidate Varieties

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ABSTRACT

Maize (Zea mays L.) is one of Indonesia's primary food crops, widely consumed as a rice substitute. Indonesia's maize demand continues to rise, contrasting with declining production. To address this, crop improvement techniques can be employed. Characterization is the initial step in maize breeding. This study characterized seven maize varieties to identify genetic diversity and uniformity. Conducted from May to September at PT. Surya Kencana Agrifarm Sejahtera, this research utilized non-factorial randomized block design and descriptive, cluster, and Principal Component Analysis (PCA) using Minitab19 software. Results showed, Cluster analysis revealed similarities between TS-9 and TS-10 (49.40%), TS-11 and TS-13 (65.70%), TS-12 and TS-14 (68.56%), while TS-15 demonstrated no genetic relationship (0.00% similarity). PCA identified TS-15 and TS-13 as superior and uniform in plant height, ear height, ear position, and stem diameter.

Key word: Characterization, genotype uniformity