PERFORMA MORFOLOGI TANAMAN F1 HASIL PERSARIAN BEBAS JAGUNG PUTIH LOKAL

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INTISARI

Jagung merupakan bahan pangan peringkat kedua setelah padi, namun jagung mempunyai peranan yang tidak kalah penting dari padi. Jagung bermanfaat sebagai bahan pangan, pakan, maupun industri Upaya perakitan varietas baru tanaman diawali dengan peningkatan keragaman genetiknya. Tujuan penelitian ini adalah mengetahui tampilan sifat morfologis tanaman genotipe-genotipe F1 hasil persarian bebas enam aksesi jagung putih lokal Penelitian dilaksanakan pada 12 April hingga 29 Juni 2020, di Demplot Sentra Jamur Merang dan Pertanian Terpadu "Lestari Makmur" milik Bapak Sumarjan di Dusun Kepuhan, Desa Argorejo, Kecamatan Sedayu, Kabupaten Bantul, Daerah Istimewa Yogyakarta, pada ketinggian tempat 87,5 meter diatas permukaan laut dengan jenis tanah vertisol. Bahan penelitian adalah 11 genotipe F1 hasil persarian bebas jagung putih lokal (G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, G11) dan Srikandi Putih sebagai varietas pembanding. Bahan penelitian ditanam di lapangan dalam Rancangan Acak Kelompok Lengkap (RAKL) dengan 3 ulangan sehingga terdapat 36 unit percobaan. Variabel yang diamati adalah tinggi tanaman (cm), jumlah daun (helai), panjang dan lebar daun (cm), diameter batang (cm), tinggi letak tongkol (cm), panjang tongkol (cm), diameter tongkol (mm), jumlah baris biji per tongkol, bobot gelondong (g), bobot biji per gelondong (g), serta hasil gelondong dan biji per hektar. Data hasil pengamatan dianalisis menggunakan analisis varian taraf α=0,05. Bila perlakuan berbeda nyata, dilanjutkan dengan uji *Duncan's Multiple Range Test* (DMRT). Hasil penelitian menunjukkan genotipe G3, G4, G7, dan G10 memperlihatkan performa morfologis tinggi letak tongkol, bobot gelondong, dan bobot biji per gelondong tidak berbeda signifikan dengan varietas Srikandi Putih, sehingga keempat genotipe ini dapat dipertimbangkan sebagai bahan pemuliaan berikutnya.

Kata kunci : performa morfologi, jagung putih lokal, genotipe F1

PERFORMANCE OF F1 PLANT MORPHOLOGY OF LOCAL WHITE CORN CROSSING

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ABSTRACT

Corn is the second foodstuff after rice, but corn has an important role compared to rice. Until now, corn is an agricultural commodity that has good prospects because corn can be processed into many kinds of food. The purpose of this study was to know the morpholocical performance of plant characters of F1 genotypes resulting from limited open cross of six local white corns. This research was conducted on 12 April to 29 June 2020, at the Central Demonstration Plot of Strawmushroom and Integrated Farming "Lestari Makmur" owned by Mr. Sumarjan in Kepuhan, Argorejo Village, Sedayu District, Bantul Regency, Yogyakarta Special Region, on the altitude of 87.5 metres above sea level with vertisol soil type. The experimental materials were 12 F1 genotypes of local white maize, namely G1, G2, G3, G4, G5, G6, G7, G8, G9, G10, G11, and Srikandi Putih as compared variety. All materials were designed with a Completely Randomized Block Design (RCBD), single factor treatment, with 3 replications, so that there were 36 experimental units. The variables observed were plant height (cm), number of leaves (blade), leaf length and leaf width (cm), stem diameter (cm), ear height (cm), ear length (cm), ear diameter (mm). , number of seed row per ear, ear weight (gram), weight of seeds per ear (gram), and yield - ear and seeds- hectare^{-1} (ton). Observation data were analyzed using analysis of variance with a level of $\alpha = 0.05$. If the treatment was significantly different, it was continued with the Duncan's Multiple Range Test (DMRT). The results showed that genotypes G3, G4, G7, and G10 showed the morphological performance of ear height, ear weight, and seed weight per ear were not significantly different from the Srikandi Putih variety, so these four genotypes could be considered as the next breeding material.

***Keywords**: morphological performance, local white corn , F1 genotype*