

PERTUMBUHAN TANAMAMAN, HASIL DAN KANDUNGAN PROTEIN BIJI BEBERAPA AKSESI JAGUNG PUTIH

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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 vareitas baru tanaman diawali dengan peningkatan keragaman genotipe tanaman jagung. Penelitian ini bertujuan untuk mengetahui tampilan pertumbuhan tanaman, hasil dan kandungan protein biji beberapa aksesori jagung putih. Penelitian ini dilaksanakan pada bulan Februari hingga April 2021. Lokasi penelitian di Demplot Central Jamur Merang dan Pertanian Terpadu "Lestari Makmur" yang berada di Dusun Kepuhan, Desa Agrotejo, Kecamatan Sedayu, Kabupaten Bantul, Daerah Istimewa Yogyakarta. Ketinggian tempat penelitian 87,5 meter di atas permukaan laut dengan jenis tanah vertisol. Penelitian berupa percobaan dengan metode Rancangan Acak Kelompok Lengkap (RAKL) dengan 3 ulangan dan faktor perlakuan tunggal, yakni macam aksesori jagung putih yang terdiri atas 3 aras perlakuan, yakni J0=varietas Srikandi Putih sebagai kontrol, J1=aksesori jagung putih asal Grogol, Parangtritis, Bantul, dan J2=aksesori jagung putih asal Kaliwiro, Banjarnegara. Variabel yang diamati meliputi tinggi tanaman(cm), tinggi letak tongkol(cm), diameter batang(mm), jumlah daun(helai), hari pembungaan jantan dan betina(hst), bobot segar dan bobot kering tajuk tanaman(gram), panjang(cm) dan diameter(mm) tongkol, jumlah baris biji, bobot gelondong dan bobot biji per gelondong(gram) dan per hektar(ton), serta bobot 100 biji(gram). Data dianalisis dengan analisis varians dan uji DMRT $\alpha=5\%$. Hasil penelitian menunjukkan pertumbuhan vegetatif, saat pembungaan jantan dan betina, serta bobot biomassa kedua aksesori tidak berbeda dengan Srikandi Putih. Kedua aksesori lebih rendah hanya pada komponen bobot tongkol dan bobot biji per tongkol saja dibanding Srikandi Putih, namun tidak berbeda untuk panjang dan diameter tongkol, bobot 100 biji, hasil biji per hektar, maupun kadar protein bijinya. Kedua aksesori memiliki harapan sebagai sumber genetik potensial dalam pemuliaan tanaman jagung putih.

Kata kunci: aksesori jagung putih, pertumbuhan dan hasil, kandungan protein biji

PLANT GROWTH, YIELD AND PROTEIN CONTENT OF SOME WHITE CORN ACCESSIONS

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ABSTRACT

Corn is the second rank food ingredient after rice, but corn has a role that is no less important than rice. Corn is useful as food, feed, and industry. Efforts to assemble new varieties of plants begin with increasing the genotype diversity of corn plants. This study aims to determine the appearance of plant growth, yield and protein content of seeds of several white corn accessions. This research was carried out from February to April 2021. The research location is in the Central Demplot of Merang Mushrooms and Integrated Agriculture "Lestari Makmur" which is located in Kepuhan Hamlet, Agrotejo Village, Sedayu District, Bantul Regency, Special Region of Yogyakarta. The altitude of the research site is 87.5 meters above sea level with vertisol soil type. The research was an experiment using a Completely Randomized Block Design (RCBD) with 3 replications and a single treatment factor, namely the type of white corn accession consisting of 3 treatment levels, namely J0 = Srikandi Putih variety as control, J1 = white corn accession from Grogol, Parangtritis. , Bantul , and J2=accessions of white corn from Kaliwiro, Banjarnegara. The variables observed included plant height (cm), ear location height (cm), stem diameter (mm), number of leaves (strands), male and female flowering days (dap), fresh weight and dry weight of the plant biomass (grams), length (cm) and diameter (mm) of ear, number of rows of seeds, ear weight and seed weight per ear (grams) and per hectare (tons), and weight of 100 seeds (grams). Data were analyzed by analysis of variance and DMRT test $\alpha=5\%$. The results showed that the vegetative growth, the time of male and female flowering, and the biomass weight of the two accessions were not different from that of Srikandi Putih. Both accessions were lower only on ear weight and seed weight per ear than Srikandi Putih, but did not differ for the length and diameter of the ear, weight of 100 seeds, yield of seeds per hectare, and protein content of the seeds. Both accessions have hope as potential genetic sources of white corn breeding.

Keywords: *growth and yield, seed protein content, white corn accessions*

