

UJI DAYA HASIL TUJUH GALUR TANAMAN PADI (*Oryza sativa* L.) RAKITAN POLITEKNIK NEGERI LAMPUNG

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ABSTRAK

Padi (*Oryza sativa* L.) merupakan tanaman pangan yang sangat penting di dunia setelah gandum dan jagung. Padi merupakan tanaman pangan yang sangat penting karena beras masih digunakan sebagai makanan pokok bagi sebagian besar penduduk dunia terutama Asia sampai sekarang. Menurut Badan Pusat Statistik (BPS) pada tahun 2020 di Provinsi Lampung produksi padi mencapai 2,65 juta ton gabah kering giling (GKG) angka itu mengalami kenaikan sebanyak 22,47 persen dibandingkan tahun 2019. Kenaikan itu masing-masing sebesar 239,98 ribu ton GKG (41,66%) dan 426,15 ribu ton GKG (74,89%) dibandingkan tahun 2019. Hasil perakitan saat ini sudah pada generasi ke-10 (F₁₀) dan ke-11 (F₁₁) hal ini perlu dilakukan seleksi dengan mengamati karakter-karakter morfologi tanaman padi apakah ada perbedaan penampilan fenotip tanaman padi pada generasi ke-10 dan ke-11 terhadap tetuanya serta melakukan uji daya hasil dan potensi hasil. Tujuan dari penelitian ini yaitu untuk mengetahui daya hasil 7 galur dan membandingkan potensi hasilnya dengan dua varietas pembanding Mentik Wangi dan Ciherang. Berdasarkan kerangka pemikiran diatas, hipotesis yang diajukan dalam penelitian ini diduga terdapat galur padi baru yang memiliki potensi hasil yang lebih tinggi dari varietas pembanding Mentik Wangi dan Ciherang. Penelitian dilakukan pada bulan Desember sampai bulan April 2021 di lahan *Seed Teaching Farm* (STefa) Teknologi Perbenihan. Penelitian menggunakan metode Rancangan Acak Kelompok (RAK) faktor tunggal menggunakan tujuh galur padi dengan kode B1, B3, B4, D1, D4, F3, H1 serta menggunakan dua pembanding Varietas Mentik Wangi dan Ciherang. Data pengamatan dianalisis uji F, jika terdapat beda nyata terkecil dilanjutkan menggunakan uji BNT taraf 5%. Alat dan bahan yang digunakan cangkul, sabit, *hand tractor*, garisan, ember, *tank sprayer 16 L*, sabit gerigi, amplop Samson tipe C, penggaris, busur, alat tulis, timbangan digital, pupuk NPK, Urea, KCL, TSP, Starban, Plenum, Regent, Bentan, Nativo. Variabel pengamatan yang digunakan yaitu Tinggi tanaman maksimum (cm), Jumlah anakan maksimum (batang), Jumlah anakan produktif (batang), Umur berbunga (hari), Umur panen (hari), Panjang malai (cm), Jumlah gabah total per malai (bulir), Jumlah gabah isi per malai (bulir), Jumlah gabah hampa per malai (bulir), Bobot 1000 bulir (g), Bobot gabah per rumpun (g), Hasil gabah per hektar (ton/ha). Kesimpulan yang didapat yaitu (1) Galur D4 memiliki potensi hasil yang lebih tinggi dibanding dengan 6 galur lainnya dan varietas pembanding Mentik Wangi dan Ciherang. Daya hasil tanaman padi galur B1 yaitu 8,16 ton/ha, galur B3 yaitu 9,23 ton/ha, B4 yaitu 8,18 ton/ha, galur D1 yaitu 8,76 ton/ha, galur D4 yaitu 9,66 ton/ha, galur H1 6,66 ton/ha, dan galur F3 yaitu 7,83 ton ha. (2) Karakter agronomi pada generasi ini beragam, pada tinggi tanaman galur B4 dan H1 lebih rendah dibandingkan dengan

galur lainnya. Pada umur panen galur F3 memiliki umur panen paling genjah jika dibandingkan dengan varietas pembanding Mentik Wangi dan Ciherang.

Kata kunci: *Galur, karakter agronomi, potensi hasil, uji daya hasil,*

RESULT TEST OF SEVEN RICE LINES (*Oryza sativa* L.) ASSEMBLY STATE POLYTECHNIC LAMPUNG

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ABSTRACT

Rice (*Oryza sativa* L.) is the most important food crop in the world after wheat and corn. Rice is a very important food crop because rice is still used as a staple food for most of the world's population, especially Asia until now. According to the Central Statistics Agency (BPS) in 2020 in Lampung Province, rice production reached 2.65 million tons of milled dry grain (GKG), an increase of 22.47 percent compared to 2019. The increase was respectively 239.98 thousand tons of GKG (41.66%) and 426.15 thousand tons of GKG (74.89%) compared to 2019. The current assembly results are in the 10th (F10) and 11th (F11) generations, this needs to be selected by observing the morphological characters of rice plants whether there are differences in the appearance of the phenotype of rice plants in the 10th and 11th generations of their parents and testing the yield and yield potential. The purpose of this study was to determine the yield of 7 lines and to compare their yield potential with the two comparison varieties, Mentik Wangi and Ciherang. Based on the above framework, the hypothesis proposed in this study is that there is a new rice line that has a higher yield potential than the comparison varieties Mentik Wangi and Ciherang. The research was conducted from December to April 2021 on the Seed Teaching Farm (STEFA) Seed Technology field. The study used a single factor Randomized Block Design (RAK) method using seven rice lines with codes B1, B3, B4, D1, D4, F3, H1 and used two comparisons of Mentik Wangi and Ciherang varieties. Observational data were analyzed by the F test, if there was the smallest significant difference, it was continued using the BNT test at 5% level. Tools and materials used are hoe, sickle, hand tractor, line, bucket, tank sprayer 16 L, serrated sickle, Samson type C envelope, ruler, bow, stationery, digital scale, NPK fertilizer, Urea, KCL, TSP, Starban, Plenum, Regent, Bentan, Nativo. The observation variables used were maximum plant height (cm), maximum number of tillers (stems), number of productive tillers (stems), flowering age (days), harvest age (days), panicle length (cm), total grain per panicle (grain), Number of filled grain per panicle (grain), Number of empty grain per panicle (grain), Weight of 1000 grains (g), Weight of grain per clump (g), Yield of grain per hectare (ton/ha). The conclusions obtained were (1) the D4 line had a higher yield potential than the other 6 lines and the comparison varieties were Mentik Wangi and Ciherang. The yield of rice in the B1 line is 8.16 tons/ha, the B3 line is 9.23 tons/ha, the B4 line is 8.18 tons/ha, the D1 line is 8.76 tons/ha, the D4 line is 9.66 tons. /ha, the H1 line was 6.66 tons/ha, and the F3 line was 7.83 tons ha. (2) The agronomic characters in this generation varied, the plant height of the B4 and H1 lines was lower than the other lines. At harvest age, the F3 line has the most early

harvesting age when compared to the comparison varieties Mentik Wangi and Ciherang.

Keywords: Line, agronomic character, yield potential, yield test