Intisari

Penelitian ini bertujuan mengidentifikasi genotipe padi yang berpotensi dikembangkan sebagai varietas padi hemat air. Penelitian dilaksanakan di Kebun Percobaan Tridharma, Fakultas Pertanian, Universitas Gadjah Mada di Banguntapan, Bantul pada bulan Mei 2016 sampai Desember 2016. Rancangan percobaan yang digunakan adalah rancangan petak terbagi faktorial dengan 2 faktor dengan 3 ulangan, faktor pertama yaitu varietas dengan menggunakan 11 varietas padi yaitu Widas, Inpari 29, Menthik Wangi, Inpago 9, Inpari 23, Lumbu Kuning, Segreng, Inpari 25, IR 64, Situ Bagendit, dan Ciherang. Faktor kedua yaitu sistem pengairan dengan 3 aras pengairan yaitu sawah, macak-macak, dan gogo sehingga terdapat 33 kombinasi perlakuan. Diamati karakter agronomi dan karakter komponen hasil. Hasil analisis varian digunakan untuk menduga nilai ragam genetik dan heritabilitas arti luas. Data hasil pengamatan juga digunakan untuk menghitung indeks respon tanaman terhadap perlakuan. Hasil percobaan menunjukkan adanya interaksi antara sistem pengairan dan varietas pada karakter kepadatan malai. Faktor tunggal sistem pengairan mempengaruhi karakter jumlah anakan total, volume akar, dan persentase gabah hampa. Karakter tinggi tanaman, umur berbunga, umur panen, jumlah anakan produktif, panjang malai, jumlah gabah per malai, hasil per rumpun, dan indeks panen hanya dipengaruhi oleh perbedaan genotipe tanaman. Berdasarkan indeks respon yang positif pada karakter komponen hasil, varietas Widas, Menthik Wangi, Inpago 9, Inpari 23, Inpari 25, dan Ciherang dapat dikembangkan sebagai varietas padi hemat air.

Keyword : hemat air, macak-macak, padi sawah

Abstract

This research was aimed to identify rice genotypes potentially developed as water-efficient rice varieties. This research was held in the Tridharma Experimenal Field Faculty of Agriculture, University of Gadjah Mada, Banguntapan, Bantul started from May 2016 to December 2016. This research was arranged in Split Plot design with two factors and three replications. First factor was varieties consisted of 11 rice varieties i.e. Widas, Inpari 29, Menthik Wangi, Inpago 9, Inpari 23, Lumbu Kuning, Segreng, Inpari 25, IR 64, Situ Bagendit, and Ciherang. Second factor was irrigation system i.e. flooding rice fields, saturated, and aerob so there are 33 treatment combinations. The results of variance analysis are used to estimate the genetic variability and heritability. Observed data were also used to calculate the plant response index for the treatment. The results show there is significant interaction between irrigation system and varieties on the panicle density character. The single factor of irrigation system influences significantly the total number of tiller characters, the root volume, and the percentage of empty grain. Characteristic of plant height, flowering date, harvesting date, number of productive tillers, panicle length, number of seeds per panicle, yield per hill, and harvest index were affected only by plant genotypes. Based on positive response index on character of the grain yield, Widas, Menthik Wangi, Inpago 9, Inpari 23, Inpari 25, and Ciherang can be developed as water-efficient rice varieties.

Keyword : water efficient, macak-macak, rice field.