

**PENAMPILAN GENERASI F5 HASIL SELEKSI *PEDIGREE*  
UNTUK MENDAPATKAN GALUR-GALUR HARAPAN  
PADI MERAH TIPE BARU**

**ABSTRAK**

Salah satu upaya peningkatan kualitas dan kuantitas tanaman padi melalui teknik pemuliaan tanaman. Penelitian ini bertujuan untuk mengetahui penampilan dan parameter genetic populasi F5 hasil seleksi *pedigree* dari persilangan kultivar Karajut dengan varietas Fatmawati untuk mendapatkan galur-galur harapan padi merah tipe baru. Hasil seleksi diharapkan mendapatkan tanaman padi merah dengan tinggi tanaman ideal, produksi tinggi, ukuran gabah besar dan lebat, serta berumur genjah. Penelitian dilaksanakan pada bulan September 2015- Januari 2016 bertempat di UPT Farm Fakultas Pertanian Universitas Andalas. Material genetik yang digunakan sebagai perlakuan adalah benih 7 genotip rekombinan hasil seleksi pada generasi F4 dan kedua tetua sebagai pembanding. Metode penelitian yaitu eksperimen dengan rancangan acak kelompok (RAK) dengan dua kelompok. Hasil penelitian menunjukkan penampilan genotype-genotipe generasi F5 mengarah pada varietas Fatmawati yaitu berumur genjah, tinggi ideal, dan bobot serta ukuran gabah yang lebih tinggi dibandingkan rata-rata kedua tetuanya.. Pendugaan parameter genetic menunjukkan nilai heritabilitas berkisar 0,27-0,98, koefisien keragaman genetik 2,35%-22,08%, dan kemajuan genetic 2,15% - 30,36%. Genotipe yang terseleksi berdasarkan criteria seleksi dan perbandingan nilai tengah tetua yaitu KF42-4-2, KF42-12-2, dan KF 42-13-2. Genotip yang terseleksi sebagai galur harapan akan dilanjutkan pada tahap pengujian daya hasil

Kata kunci: *padi merah, RAK, populasi F5, parameter genetik, galur harapan*



# THE PERFORMANCE OF F5 GENERATION OF PEDIGREE SELECTION TO GET NEW SUPERIOR TYPE OF RED RICE

## ABSTRACT

Plant breeding techniques can be used to increase both quality and quantity of rice. A study aimed at determining the performance and genetic parameters of F5 population from Karajut and Fatmawati crosses through pedigree selection to get new superior type of rice. The selection results were expected to get red rice plants with ideal plant height, high yield, large grain size and abundance grain, as well as early maturity. A randomized block design experiment with two blocks was conducted from September 2015 to January 2016 at UPT Farm Faculty of Agriculture Andalas University. Genetic material used for this experiment was 7 genotypes from F4 generation and the two parents as a comparison. Results showed the performance of F5 generation was close to cultivar Fatmawati. The characters were early maturity, ideal plant height, grain weight and size. They were higher than that of the average of the parents. Estimated genetic parameters demonstrated that heritability values ranging from 0.27 to 0.98, genetic coefficient 2.35% - 22.08%, and genetic advances 2.15% - 30.36%. Genotypes were selected based on the selection criteria and comparison of the median value of parents. They were KF42-4-2, KF42-12-2, and KF 42-13-2. These selected genotypes will be used for further experiment on yield potentials.

Keywords: *rice red, randomized block design, f5 population, genetic parameters, promising lines*

