



**KEMENTERIAN RISET, TEKNOLOGI DAN PENDIDIKAN TINGGI**  
**UNIVERSITAS SYIAH KUALA**  
**UPT. PERPUSTAKAAN**

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## ELECTRONIC THESIS AND DISSERTATION UNSYIAH

### TITLE

KARAKTERISASI DAN PENDUGAAN PARAMETER GENETIK GENOTIPE CABAI MERAH (*CAPSICUM ANNUUM L.*)  
IPB C2 GENERASI M3 HASIL IRADIASI SINAR GAMMA TERHADAP KARAKTER HASIL

### ABSTRACT

Abstrak. Pendugaan parameter genetik suatu karakter yang diinginkan sangat penting untuk diketahui dalam menentukan metode pemuliaan tanaman. Penelitian ini bertujuan untuk mengetahui keragaman genetik dan nilai duga parameter genetik pada karakter hasil terhadap populasi M3 cabai merah. Penelitian ini dilaksanakan di Rumah Kasa Fakultas Pertanian, Laboratorium Genetika Dasar dan Pemuliaan Tanaman, dan Laboratorium Ilmu dan Teknologi Benih Program studi Agroteknologi Universitas Syiah Kuala. Unit Penelitian disusun berdasarkan Rancangan Acak Lengkap (RAL) pola nono faktorial dengan 4 ulangan. Hasil penelitian menunjukkan terjadi keragaman pada karakter tinggi tanaman, tinggi dikotomus, panjang tangkai buah, diameter buah, ketebalan kulit buah, bobot per buah dan berat buah per tanaman dengan dosis 100, 200 dan 300 Gy. Namun pada dosis sinar 400 Gy, pada karakter tersebut tidak terjadi variasi antara tetuanya

Kata kunci: genotipe, heritabilitas, mutasi, potensi hasil

Characterization and Estimation of Genetic Parameter on Yield Characters of M3 IPB C2 Chili Genotype from Gamma Rays Irridiation

Abstract. Estimation of the genetic parameter of desirable character is important to be known for determining the methods of plant breeding. Heritability is a genetic parameter to measure the ability of genotype in plant population to inherit the congenital characters. This research aims to find out the genetic variability and estimated value of the genetic parameter on yield characters in M3 population of chili. This research was carried out at Screen House, Laboratory of Genetics and Plant Breeding, Laboratory of Science and Seed Technology, Department of Agrotechnology, Syiah Kuala University. The experiment units were compiled based on Non-Factorial Completely Randomized Design (CDR) with 4 replications. The result of the research showed that variability happened in plant height, dichotomous height, fruit pedicel length, fruit diameter, fruit wall thickness, fruit weight and fruit weight per plant characters with 100, 200 and 300 gy dosage however in 400 gy dosage, variation between the parents did not happened in those character.

Keywords: Genotype, Heritability, Mutation and Yield Potential