

INTISARI

Penelitian ini bertujuan untuk memperoleh data karakter keturunan persilangan, menentukan nilai heritabilitas, dan memperoleh data hubungan antar karakter dari keturunan persilangan tunggal dan ganda antara cabai merah besar dan cabai merah keriting (*Capsicum annuum* L.) Penelitian ini dilaksanakan di Kebun Tridharma Fakultas Pertanian, Universitas Gadjah Mada, Banguntapan, Yogyakarta. Waktu pelaksanaan penelitian yaitu selama bulan September 2020 hingga Desember 2020. Penelitian ini menggunakan Rancangan Acak Kelompok Lengkap yang terdiri dari 2 ulangan berupa blok dan 43 perlakuan berupa cabai sehingga didapatkan 86 satuan percobaan. Pada masing-masing satuan percobaan terdapat 12 tanaman, dari jumlah tersebut diambil 3 tanaman sebagai sampel yang kemudian dirata-rata. Data yang didapatkan kemudian dianalisis dengan *analysis of variance* (ANOVA), dilanjutkan uji lanjut Dunnett, uji heritabilitas, analisis korelasi, analisis lintas, dan analisis PCA. Berdasarkan hasil penelitian didapatkan bahwa karakter umur berbunga, panjang buah, panjang tangkai, diameter buah, dan bobot buah menjadi karakter hasil persilangan yang berbeda nyata dari tetua cabai besar sehingga, terdapat keragaman; karakter jumlah buah (-0,13), panjang tangkai (0,15), dan produktivitas (0,02) memiliki heritabilitas rendah, karakter panjang batang (0,36), diameter batang (0,28), umur berbunga (0,39), dan panjang buah (0,26) memiliki heritabilitas sedang, dan karakter diameter buah (0,72) dan bobot buah (0,69) memiliki heritabilitas tinggi; dan karakter cabai yang berpengaruh langsung terhadap indikator keunggulan cabai yaitu jumlah buah dan bobot buah.

Kata kunci: silang tunggal, silang ganda, resiprok, *Capsicum annuum* L.

ABSTRACT

This research aims to obtain character data from progenies crosses, determine heritability values, and obtain data on the relationship between characters from progenies of single and double crosses between big red chillies and curly red chillies (*Capsicum annuum* L.) This research was carried out at the Tridharma Gardens Faculty of Agriculture, Gadjah Mada University, Banguntapan, Yogyakarta. This research used a CRBD consisting of 2 replications in the form of blocks and 43 treatments in the form of chillies to obtain 86 experimental units. In each experimental unit there were 12 plants, from this number 3 plants were taken as samples which were then averaged. The data obtained was then analyzed using ANOVA, followed by Dunnet's advanced test, heritability test, correlation analysis, cross analysis, and PCA analysis. Based on the research results, it was found that the characters of flowering age, fruit length, stalk length, fruit diameter and fruit weight were different characters resulting from crosses from large chili parents, so there was diversity; the characters number of fruit (-0.13), stem length (0.15), and productivity (0.02) have low heritability, the characters stem length (0.36), stem diameter (0.28), flowering age (0.39), and fruit length (0.26) have moderate heritability, and fruit diameter (0.72) and fruit weight (0.69) have high heritability; and the characteristics of chillies which have a direct influence on the superiority indicators of chillies, namely the number of fruits and the weight of the fruits.

Key words: single cross, double cross, reciprocal, *Capsicum annuum* L.