PHENOTYPE PERFORMANCE AND ESTIMATION OF GENETIC PARAMETERS FROM *DOUBLE CROSS* SOME BIG CHILI (*Capsicum annuum* L.) ACCESSIONS

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ABSTRACK

Chili (*Capsicum annuum* L.) is one of the commodities that are in great demand by the public. Efforts to produce large chili varieties that have high productivity can be done by plant breeding using the double cross method. This research was conducted in Meger Village, Ceper District, Klaten Regency, Central Java Province from February to June 2022. The research method used a one-factor *Completely Randomized Block Design* (RAKL) with 3 replications. The treatments used included 16 genotypes of large *double-crossed* chilies, namely A = Baja x Baja, B = Gada x Gada, C = Panex x Panex dan D = Dewa Rengku x Dewa Rengku, E = Gada x Baja, F = Gada x Panex, G = Gada x Dewa Rengku, H = Baja x Panex, I = Baja x Dewa Rengku, J = Panex x Dewa Rengku, K = Baja x Gada, L = Panex x Gada, M = Dewa Rengku x Gada, N = Panex x Baja, O = Dewa Rengku x Baja and P = Dewa Rengku x Panex. Observational data were analyzed using Anova and Post Hoc test with Scott – Knott at a level of 5%. The results showed that the coefficient of genetic diversity was high on the variables of fruit length and fruit weight per plant. High heritability values on the variables of plant height 60 days after planting, fruit length, fruit diameter and fruit weight per plant. The color of the young fruit is dominated by green - yellow, while the color of the old fruit is dominated by red. The lines that have the potential to become prospective elders are Dewa Rengku x Panex and Baja x Dewa Rengku.

Keywords : *big chili, double cross, genetic diversity, heritability*