

**GENETIC PARAMETERS ESTIMATION OF SEVERAL WHITE CHILI
PLANTS (*Capsicum frutescens* L.) GENERATION F2**

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ABSTRACT

*White cayenne pepper (*Capsicum frutescens* L.) is a commodity with high demand. Efforts to meet this demand are to increase the productivity of chili plants through plant breeding. This study aims to obtain heritability values and genetic diversity coefficients and also to determine the white cayenne pepper plant lines that have the potential to be used as genetic material for the F3 generation. The research method used a single-factor Completely Randomized Design (CRD) with 3 replications. The treatments used included 9 F2 generation white cayenne pepper lines, namely P6P7-1, P6P7-5, P6P7-7, P6P7-8, and P6P7-9. The observation data were processed using Analysis of Variance (ANOVA) followed by the Scott-Knott test at a level of 5%. The results showed high genetic diversity coefficient values in the variables of incidence of gemini disease. High heritability values were found in the variables of flowering age and incidence of gemini disease. The line with the most potential to be used as genetic material for the F3 generation is P6P7-1.*

Keywords: white cayenne pepper, heritability, genetic diversity