



Embryogenesis in the anthers of different ornamental pepper (*Capsicum annuum* L.) genotypes

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ABSTRACT. The aim of this study was to relate flower bud size with microspore developmental stages and the induction of embryos in the anthers of different ornamental pepper (*Capsicum annuum* L.) genotypes. Flower buds were randomly collected and visually divided into three classes based on both petal and sepal size. The length and diameter of the bud as well as the length of the petal, sepal, and anther were then measured. The microspore stage was also determined for each anther of the bud where it was found. The data were subjected to analysis of variance ($P \leq 0.01$), and the means were separated by Tukey's test ($P \leq 0.01$). The broad sense heritability, the CVg/CVe relation, and the Pearson correlation between characters were also determined. Anthers from 10 *C. annuum* genotypes were cultivated in four culture media types for the induction of embryos. The data were transformed by Arcsin (x) and subjected to analysis of variance ($P \leq 0.01$), and the means were separated by Tukey's test ($P \leq 0.01$). The majority of anthers in the second class had uninucleate microspores. No correlation was observed between bud size and the number of uninucleate microspores. Genotype 9 specimens grown in M2 medium induced the highest number of embryos (16) compared to the

other treatments, which indicates a significant interaction effect between culture media and genotypes.

Key words: Bud morphology; Androgenesis; Genotypes; Culture Media; Breeding