

**Various Fruit Ripeness Levels Based on Color  
and Extraction Methods on Seed Quality and Growth of  
Cayenne Pepper (*Capsicum frutescens* L.)**

*By: Andhika Putra Wijaya  
Supervised by: Ami Suryawati*

**ABSTRACT**

The quality of seeds and the growth of good bird's eye chili are produced through the selection of chili fruits based on fruit maturity and effective also efficient extraction method. This research aimed to determine best interaction between fruit maturity treatments and extraction methods on seed quality and bird's eye chili growth. Study was carried out in two stages: seed quality research and bird's eye chili growth research. The experimental design used a two-factor Completely Randomized Design with three replications. First factor, fruit maturity, was based on fruit color and divided into three levels, Yellow Group 1-C, Orange Group 28-A, and Orange-Red Group 34-A. Second factor had two levels: dry extraction and wet extraction. The observed results were analyzed using variance analysis at the 5% level, followed by Duncan's Multiple Range Test. The research results showed that the best interaction occurred at the fruit ripeness level of Orange Group 28-A with the wet extraction method in the seed vigor parameter. The Orange Group 28-A fruit maturity treatment demonstrated the best results for both seed quality and the parameters of stem diameter and days to flowering. The best extraction method treatment is found in the wet extraction method based on treatment efficiency.

*Keyword:* bird's eye chili, Fruit maturity, Seed Quality, extraction, Growth