IDENTIFICATION SYSTEM FOR MATURITY LEVEL *CAPSICUM FRUTESCENS* L. BASED ON *GRAY LEVEL CO-OCCURANCE MATRIX* USING *BACKPROPAGATION*

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ABSTRACT

Chili is produced by many farmers nowaday because its profit and to meet the needs of chili for industrial and household. The demand of chili is increase every year, however its productivity is decrease. It is caused by less optimal handling by the farmers on pre and post harvest of chili and thats make its quality less good. The main factor that must be considered on pre and post harverst handling to maintain the quality of chili is maturity level. Based on those problem, this research aims to identify the maturity level of chili based on GLCM by using Backpropragation method. The important step of identification process was the feature extraction process. Feature extraction process was using Gray Level Co-Occurance (GLCM) method. Based on the value of feature extraction process, maturity level of chili devided into 4 groups there are red mature chili, orange mature chili, green mature chili, and not mature chili by using backpropagation method.

Keyword: Backpropagation, Chili, Feature extraction process