

CLASSIFICATION OF CIPLUKAN FRUIT MATURITY USING THE NAÏVE BAYES METHOD AND GRAY LEVEL CO-OCCURRENCE MATRICES FEATURE EXTRACTION

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ABSTRACT

Ciplukan fruit has high nutritional value, but is often considered a weed or wild plant by the public. The public's lack of knowledge about this fruit means that they do not know whether this fruit is ripe or unripe, which results in errors in consuming it. This research aims to develop a ripeness classification system for ciplukan fruit, the method used is Naive Bayes and Gray Level Co-Occurrence Matrices (GLCM) feature extraction. Raw and cooked ciplukan image data of 100 samples was collected and processed. Preprocessing results, including Grayscale, Cropping, and Resize, help prepare images for classification. GLCM feature extraction produces special characteristics, namely dissimilarity, correlation, homogeneity, contrast, ASM, energy. The Naive Bayes method provides adequate accuracy in classifying the ripeness of ciplukan fruit. This system can help people choose ripe fruit more accurately, improve the quality of consumption, and understand its health benefits. The accuracy obtained was 67.3%.