CUCUMBER LEAF DISEASE IDENTIFICATION SYSTEM USING ARTIFICIAL NEURAL NETWORK (ANN)

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ABSTRACT

This study aims to develop a disease identification system on cucumber leaves using color and texture feature extraction based on Artificial Neural Network (ANN). 120 cucumber leaf images were used as input data and processed with HSV color conversion and texture feature extraction using the Gray Level Co-Occurrence Matrix (GLCM). The classification method used is ANN with the Backpropagation algorithm. The results of training and testing show that this method has high accuracy, with training accuracy reaching 85.55% and testing accuracy reaching 80%. This identification system is expected to help farmers identify diseases on cucumber leaves more accurately, so that proper treatment can be carried out to increase the quality and quantity of production.

Keywords: *Classification, Cucumber Leaves, Artificial Neural Network*