

**COMPARISON OF BAYES THEOREM WITH CERTAINTY FACTOR ON EXPERT  
SYSTEMS TO IDENTIFY SWEET POTATO PEST WEB-BASED**

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**ABSTRACT**

*Sweet potato (Ipomea batatas (L) Lamb) is one of the plants producing carbohydrate tubers that keep the tubers in the soil. The process of planting sweet potatoes has constraints such as pests that attack sweet potato, this is a problem for sweet potato farmers due to lack of knowledge of farmers against pest control of sweet potato. Based on the existing problems, an expert system was designed and built to identify sweet potato pests with a comparison of Bayes Theorem and Certainty Factor method. The process of identification of sweet potato pests is done by entering the symptoms experienced by sweet potato and then the symptoms are processed by system with Bayes Theorem and Certainty Factor method. The Bayes Theorem and Certainty Factor method yields the calculated value of each pest and is the highest value for the final result. Based on the test 35 data obtained comparison of the results between experts with Bayes Theorem method by 80%, while the ratio of results between experts with Certainty Factor method of 54.28%.*

*Keywords: Expert System, Sweet Potato Pests, Bayes Theorem, Certainty Factor*