

## ABSTRACT

**Nur Hidayati. 2012. : *Expert System for Identification of Diseases Pests In Mushroom Cultivation Using Certainty Factor Method. Advisor : Suprpto, ST., MT. and Issa Arwani, S.Kom., M.Sc.***

Mushroom is known as one of the much-loved horticulture and is known as one of the low-cholesterol diet as well as herbal medicine. The growth of mushrooms demand encourages increased production of fresh mushrooms. The process of cultivation can not be separated by the pests and diseases that may adversely affect yields.

The identification process based on symptoms of visible damage on the outside of the plant. Expert system for identification of diseases pest in mushroom cultivation using certainty factor in the weighting process in each of his rule. System gives decisions in the form of pests and diseases that attack, and the value of CF beliefs of attacks. The system is designed using SSAD (Structured Systems Analysis and Design) and implemented using the programming language PHP. MySQL is used as a storage database. Testing expert system includes a black box and accuracy testing. Based on expert assessments of the accuracy of the output system obtained accuracy amount 82.31% percent. In black box testing functionality obtained value of 100%. The overall results of this test indicate that the system is able to help experts and lay people in identifying pests and diseases that attack the mushroom cultivation.

**Kata Kunci:** *Expert Systems, Web-Based Expert System, Certainty Factor (CF).*