

ABSTRACT

EXPERT SYSTEM FOR PEST AND DISEASE DIAGNOSIS IN RICE PLANT USING WEBSITE-BASED FORWARD CHAINING METHOD

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According to the Cilacap district statistics center, from 2016 to 2018 the amount of rice production has decreased, which was caused by crop failure. This crop failure is caused by the attack of pests and diseases. Usually pests and diseases attack rice plants due to lack of protection and care from the farmers themselves. When rice plants are attacked by pests and diseases, it is rarely known quickly or detected quickly by farmers. The solution to the above problems is to develop an expert system for diagnosing pests and diseases in rice using a website-based forward chaining method. An expert system is a system that applies knowledge with a computerized system in a particular field of knowledge to reach a solution to a problem in that field. Forward chaining is used because it can work optimally in determining conclusions. then made into the rules then drawn a conclusion. The programming language that the author uses is PHP. The results of the initial diagnosis of this expert system can help the first treatment along with solutions to overcome them. In this study the test used was using black-box testing, in this test there were 7 test cases which were carried out with the whole getting a percentage test result of 100%. The conclusion from the results of black-box testing is that there are no errors when running this expert system website and the results are as expected by the researcher.

Keyword : Diagnosis, Forward Chaining, Pests and Diseases, Expert Systems, Websites.