EXPERT SYSTEM TO DIAGNOSE PEST AND DISEASES OF ONION PLANTS USING CERTAINTY FACTOR METHOD USING WEB-BASED INFERENSY FORWARD CHAINING MACHINE

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ABSTRACT

Shallots are often used as a complementary spice for culinary delights. has ingredients that are useful for health such as antidotes to poisons or antidotes, for example reserve antibiotics and contains vitamins A and C, carbohydrates, phosphorus and calcium. In this study the author conducted research using the certainty factor method and using a forward chaining inference machine. The Certainty Factor method is a solution that can be defined as believing in facts or rules based on expert beliefs. The Certainty Factor method calculation is carried out by calculating the multiplication value between the user's CF value and the expert's CF value and producing a combined CF value. This research produces an expert system that can diagnose 7 pests and diseases that attack shallot plants based on symptoms using web-based forward chaining and certainty factor methods. Where the system was tested with 3 tests, namely black box testing with a testing accuracy of 100%, user acceptance test with a testing accuracy of 86%. This research produces an application which can help a shallot farmer with knowledge in dealing with pests and diseases. can cause shallot farmers to experience crop failure.

Key: Shallots, Certainty factor, facts, rules, experts, forward chaining,

Farmer, Web-based