An Expert System For Diagnosing Pests On Tea Plants Using The Forward Chaining Method And Certainty Factor

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ABSTRACT

The tea plant (Camellia sinensis) is one of the important crops in the Indonesian economy because it provides employment and income for farmers as well as increases foreign exchange earnings and encourages regional development. One that makes the production of tea plants, namely the presence of pests that exist in tea plants. The process of diagnosing tea plants must be carried out properly. In this case the expert system can be used as an alternative, where the system will convert expert knowledge into the system in terms of diagnosing tea plants that are being attacked by pests and providing solutions for handling these pests. This study combines two methods, namely forward chaining and certainty factor which can provide results of pest diagnosis on tea plants based on the symptoms selected by farmers. Based on the results of testing on the Expert System for Diagnosis of Pests on Tea Plants using the forward chaining method and certainty factor compared to expert knowledge, it produces an accuracy rate of 84.61%, these results are obtained from 26 scenarios of system accuracy testing.

Keyword: *Tea, Expert System, Forward Chaining, Certainty Factor*