

Expert System for Diagnosing Diseases of Rubber Plants Using Web-Based Certainty Factor Method

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ABSTRACT

The expert system for diagnosing rubber plant diseases using the web-based certainty factor method aims to assist farmers in diagnosing rubber plant diseases with a high degree of accuracy. The problems discussed in this study are how to analyze the needs of a disease expert system in determining the value of the level of confidence in diagnosing rubber plants, how to build a web-based system and interface design that can facilitate the use of an expert system by inexperienced users, and how to implement, test, and evaluating the performance of the certainty factor method in building an expert system for diagnosing web-based rubber plant diseases. The purpose of this study is to produce functional and non-functional definitions to be used as input for the preparation of system designs and web-based expert system application interfaces, produce applications and expert system test results for the diagnosis of rubber plant diseases that suit the needs of farmers, and produce a level of confidence (certainty factor) that is right in diagnosing diseases in rubber plants to increase user accuracy and confidence in expert systems. The results of the accuracy carried out by comparing the results of the system diagnosis obtained an accuracy of 91.5% This expert system can be used to diagnose rubber plants based on known symptoms

Keywords : Expert System, Certainty Factor, Rubber Plants