ABSTACT

EXPERT SYSTEM FOR DIAGNOSIS OF GINGER PLANT DISEASES USING WEBSITE-BASED CERTAINTY FACTORS

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Ginger is one of the important biopharmaceutical commodities that complement cooking spices, which is often found in traditional markets in Indonesia. However, ginger cultivation often experiences obstacles due to plant diseases, such as bacterial wilt, rhizome rot, and leaf spots that can cause crop failure and have a major impact on farmers. Lack of knowledge and minimal counseling from agricultural experts make disease diagnosis and control difficult. To overcome this problem, this study aims to design a web-based expert system that utilizes the certainty factor method to diagnose various types of ginger plant diseases with existing symptoms. This system is designed to facilitate ginger farmers to detect diseases accurately and quickly, so that they can produce an effective diagnosis. In addition, the black box testing method is used to ensure that all components and features function properly. The final validation stage by agricultural experts is carried out to test the precision of the system in detecting ginger disease.

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