EXPERT SYSTEM FOR DIAGNOSIS OF PEST AND DIESEASE OF ORANGE PLANTS USING CERTAINTY FACTOR METHODS

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**ABSTRACT** 

Peasts or diseases of citrus plants are plant-disturbing organisms that can

cause affected plants to experience slow growth or development so that the productivity

of citrus plants decreases. This is because citrus farmers still do not know much about

the types of peasts or diseases that can attack citrus plants and how to control them.

With these problems, the researchers build an expert system that can diagnose citrus

pests and diseases based on the symptoms experienced. The expert system itself is a

system that is defined as a computer program that collects expert knowledge to solve

problems that occur ini citrus plants. This expert system was created with the aim of

diagnosing citrus pests or diseases and providing apporopriete control solutions to

problems that occur. This expert system uses the Certainty Factor method. Certainty

Factor is a method of Certainty Factor that uses the level of trust from an expert.

Accuracy result were carried out by comparing the results of system diagnostics with

manual diagnoses carried out by an expert on 20 cases of citrus plants to obtain an

accuracy of 95%.

**Keywords:** Orange Plant, Expert System, Certainty Factor

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