

**EXPERT SYSTEM FOR DIAGNOSIS OF PESTS AND DISEASES IN
PLANTING CORN USING THE FORWARD METHOD**

CHAINING,

Mentor (1 Person)

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ABSTRACT

One of the main food crops that has a strategic role in global food security is corn. However, even though corn has great potential in meeting human food needs, its productivity is often disrupted by various problems. One of the problems that disrupts the productivity of corn plants is pests and diseases. Therefore, there is a need for an effective solution to be able to carry out early diagnosis to control pests and diseases in corn, namely by building an expert system. One method in expert systems that is widely used is Forward Chaining. The aim of this research is to design an expert system for diagnosing pests and diseases in corn plants using the Forward Chaining method to help farmers overcome pest and disease problems early in corn plants more quickly and accurately. This research refers to the Waterfall research method as system modeling. The data collection in this research includes observation, interviews and literature study. The data used is 4 disease data and 18 symptom data. Researchers designed a proposed system using UML (Unified Modeling Language). The research results show that this research has succeeded in applying the Forward Chaining method to the Expert System for Pest and Disease Diagnosis in Corn Plants which can help farmers identify and overcome disease problems in cornplants more effectively. Results testing using Blackbox Testing shows that the system is functioning well and provides results that are as expected.