EXPERT SYSTEM FOR DIAGNOSIS OF PEST AND DISEASE OF OKRA PLANT USING FORWARD CHAINING AND CERTAINTY FACTOR METHODS

Supervisor (1 *People*)

Nafis Hibatullah Lestamanta

Study Program of Informatics Engineering

Majoring in Information Technology

ABSTRACT

Okra (Abelmoschus esculentus L. Moench) is a plant that belongs to the Malvaceae or cotton family. The distribution of okra plants is widespread in all parts of the world with tropical and sub-tropical climates. An Expert System is a system defined as a computer program that collects expert knowledge to solve problems that occur in okra plants. This expert system was created with the aim of diagnosing okra plant pests and providing appropriate control solutions to problems that occur. The purpose of this expert system is to diagnose okra plant pests and provide appropriate control solutions to problems that occur. This expert system combines two methods, including Forward Chaining and the Certainty Factor. Forward Chaining method that collects initial data or facts for further processing that will produce a solution. While the Certainty Factor method is a method of Certainty Factor that uses the level of trust from an expert. Accuracy results were carried out by comparing the results of system diagnostics with manual diagnoses carried out by an expert on 27 cases of okra plants, obtaining an accuracy of 81.4%.

Keywords: *Okra Plant, Expert System, Forward Chaining, Certainty Factor*