

**IMPLEMENTATION OF EXPERT SYSTEM DIAGNOSIS OF TOBACCO  
DISEASES AND PESTS USING A COMBINATION OF FORWARD  
CHAINING AND CERTAINTY FACTOR METHODS**  
*(Case Study Suboh District, Situbondo Regency)*  
*Supervisor (1 People)*

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**ABSTRAK**

*Tobacco is an annual herbaceous plant grown for its leaves. This plant belongs to the Solanaceae family. Expert System is a system which is defined as a computer program that gathers experts to solve problems that occur in tobacco plants. This expert system was created with the aim of diagnosing tobacco plant pests and providing the right solution to the problems that occur. This expert system combines two methods, namely Forward Chaining and Certainty Factor. Forward Chaining method that collects initial data or facts to go further which will result in a solution. While the Certainty Factor method is a Certainty Factor method that uses the level of trust from an expert. Accuracy results are carried out by comparing the results of system diagnostics with manual diagnoses carried out by an expert on 20 cases of tobacco plants with an accuracy of 90%.*

**Keywords:** *Tobacco plants, Expert System, Forward Chaining, Certainty Factor.*