

ABSTRACT

Red chili is one type of vegetable plant that is very important in Indonesia because the taste contained in the chili can arouse appetite. Chili plants are widely cultivated in Indonesia, one of which is in the Blitar Regency area. In the rainy season, farmers always feel restless when planting chilies in the rainy season. In the rainy season, chili has a history of disease attacks that are quite a lot. In order to overcome this problem, appropriate steps are needed, namely by providing exceptional treatment in the form of correct treatment of plants that are infected with the disease. To further diagnose the types of diseases in plants, an alternative method is needed, namely by making an expert system application to diagnose diseases in chili plants. In the design of this expert system, I use the Certainty Factor and Weighted Product methods. Certainty Factor is a method to prove the uncertainty of an expert's thinking. Researchers usually use a certainty factor to describe the expert's confidence level in the problem at hand (Sutojo, 2010) while using multiplication to connect attribute ratings, where each rating must be raised to the first power with the weight of the attribute in question. From the 30 tests above where the user conducts consultations by answering several questions about the symptoms that have been experienced, 19 tests are following the experts, and two tests are not following the experts, based on the results of tests that have been carried out on the expert system 30 times, the accuracy value obtained as much as 90.48% in accordance with the answers obtained from experts.

Keywords: certainty factor, red chili disease, expert system, weighted product

