ABSTRACT

EXPERT SYSTEM FOR DIAGNOSIS OF NILE TILAPIA DISEASES USING CERTAINTY FACTOR METHOD BASED ON WEBSITE
(Case Study: Keramba Jaring Apung Haranggaol)

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Nile Tilapia is a popular choice of fish to eat everyday because it tastes delicious and is high in nutrition, easily found in traditional markets. Since long ago, Nile Tilapia has been eaten by many Indonesians and is one of the sources of protein, vitamins, and minerals needed by the body. Barriers experienced by cultivators throughout the process of cultivating fish, one of which is the spread of disease in fish that are so cultivated affect sales in the market and harm fish farmers. Bacteria, fungi, or even more viruses cause disease which is certainly very detrimental because it can lead to death. With these problems so an expert system was created to diagnosis Nile Tilapia diseases with the aim of helping fish farmers in diagnosing and treating Nile Tilapia diseases. Information technology in various fields has greatly rapidly, until this time the expert system was created using a website. The results of this study get something output in the form of a disease that is felt and a solution to the treatment of the disease that is experienced by using Certainty Factor method. In this study, 50 sample rules were randomly selected and 48 rules were successful, while 2 rules were not successful. Based on test results black box, indicating that all components tested display output expected and in accordance with its functionality and the results of accuracy testing with experts get value accuracy of 96%. Therefore the system is declared accurate, because the higher the accuracy value results obtained, the more feasible the system to use.

Keyword: black box, certainty factor, expert system, nile tilapia