

Sistem Informasi Peramalan Dan Optimasi Produksi Jamur Tiram Dengan Menggunakan Metode Dekomposisi Dan *Linier Programming* Pada PT Jasentra Jember*(Information System For Forecasting And Optimization Of Oyster Mushroom Production Using Decomposition And Linear Programming Methods At PT Jasentra Jember)*

Alex Rudi Herlambang

Study Program of Informatics Engineering

Department of Information Technology

ABSTRACT

Oyster mushrooms (Pleurotus Ostreatus) are a type of edible mushroom that contains nutrients that are good enough for the body including protein, phosphorus, fat, iron, thiamin, riboflavin, and contains 18 kinds of amino acids needed by the human body. In operational activities, oyster mushroom production has several problems that arise, where mushroom production is still fluctuating so that the availability of oyster mushroom stocks is not in accordance with existing market demand. The marketing process for oyster mushrooms also has a problem where the amount of distribution of oyster mushrooms for various areas that is less precise can reduce the profits that should be obtained. PT Jasentra is a company engaged in the production of oyster mushrooms. So far, the process of calculating the amount of oyster mushroom production is still done manually. The sales records of the oyster mushroom harvest are still done manually. Based on these problems, it is necessary to create an information system for forecasting and optimization of oyster mushroom production using Decomposition and Linear Programming methods. This system is developed in the form of a website with the PHP programming language that uses the Code Igniter framework and MY SQL as database. With this system, it is hoped that it can help PT Jasentra to determine future business strategies so they could meet the needs of the oyster mushroom market and increase their business activities.

Keywords: Oyster Mushrooms, Information Systems, Decomposition, Linear Programming.