

## **ABSTRACT**

*PT. Perkebunan Nusantara VIII Ciater is a company of BUMN engaged in plantation sector with business activities include cultivation of crops, processing, and sales of plantation commodities such as tea. In the last two years, there has been a significant gap between the target and the real production of tea bud around 50 percent at PT. Perkebunan Nusantara VIII Ciater. Difference between target and real production of tea bud resulted in the non-fulfillment of demand for black tea, resulting in production within the plant unable to reach the target. This causes a loss to the company, because it does not achieve the production target of tea bud. This research is done by forecasting to know the amount of tea bud production in the future. So the production of black tea can fulfill the demand. Forecasting is done by using Box-Jenkins or ARIMA method with calculation of error level using RMSE (Root Mean Square Error), MSE (Mean Square Error), and MAPE (Mean Absolute Percent Error) to determine forecasting model. Based on the results of data processing, forecasting with the lowest error rate is ARIMA(2,1,4) of 21 percent compared with previous forecast which reduced by 29 percent.*

*Keywords : Production of Tea Bud, Forecasting, Error Rate, and Box-Jenkins.*