

## ***ABSTRACT***

Stockout is a condition that a company should avoid as much as possible. The causes of this condition can come from many things, such as errors in the use of demand forecasting methods, frequent machine breakdowns, and delays in raw materials. Based on the results of observation and communication with company staff, it was found that the cause of stockouts was delays in the delivery of raw materials which caused production to be delayed. With raw material forecasting, it will make it easier to calculate how much raw material is needed to carry out production in the coming days without having to fear that raw materials will not be available later. However, the management of raw material supplies at PT Indo Sawit Kisaran is still experiencing problems in controlling FFB (Fresh Fruit Bunches). The problems faced by the company are raw material needs that are not optimally met. The way to solve this problem is to determine forecasting and continue with determining the Economic Order Quantity (EOQ) using CPO demand data for June 2022-May 2023. The calculation results show that a good forecasting method is the Quadratic Trend Model method, with a MAPE error value 25, MAD 141.5, MSD 34987.3. For EOQ calculations, the total purchase quantity is 2.218 tons, the purchase frequency is 38 times, the total inventory cost is Rp. 22.544.656, safety stock of 1,200 tons and reorder point of 1,461.6 tons.

***Keywords:*** *stockout, CPO, TBS, EOQ, raw materials, safety stock*