Analysis of Soybean Inventory Control at H. Karlim Tempe Home industry Using the Economic Order Quantity Method Approach

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ABSTRACT

H. Karlim's Tempe Home Industry did not have an appropriate method to optimally calculate raw soybean inventory. This home industry frequently purchased an additional 100 kg to 200 kg of soybeans, which caused an extra burden in raw material procurement. This research used a quantitative descriptive approach that aimed to describe a phenomenon systematically, measurably, and objectively using numerical data. The study applied several analytical techniques, including the EOQ method, safety stock, reorder point, and total inventory cost to compare soybean inventory control using the conventional method with the Economic Order Quantity (EOQ) method. The required data included soybean order data, soybean usage, ordering costs, and storage costs during the period from April 2022 to March 2023. The results of the study showed that the optimal frequency of soybean orderis was 13 times per year, with an order quantity of 2.616 kg based on the EOQ method. Reordering was done when the raw materials stock in the warehouse reached 347 kg. The total inventory cost of raw materials that the home industry had to incure was Rp. 2.720.710.

***Keywords**: Soybean, Inventory, EOQ*