

ABSTRACT

The study aims to determine the optimal production combination, analyze the amount of profit after optimization, and formulate a follow-up strategy to maintain business sustainability at UD Tahu Jaya Agroindustry in Suka Maju Village, West Binjai District, Binjai City. The analysis method used is Linear Programming with the simplex method and the assistance of POM-QM software for Windows. The results of the study indicate that the actual production combination of UD Tahu Jaya is not optimal. The application of the Linear Programming model produces a production combination that is able to increase business profits without additional production inputs through more efficient resource utilization. Thus, the Linear Programming method is effectively used as a decision-making tool in tofu agroindustry production planning.

Keywords: Tofu agroindustry, production optimization, Linear Programming, profit, POM-QM.