

## Optimization Model for Support Decision for Maximizing Production of Mixed Fruit Tree Farms

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**Abstract :** We consider a linear programming model to help farmers to decide if it is convenient to choose among three kinds of export fruits for their future investment. We consider area, investment, water, productivity minimal unit, and harvest restrictions and a monthly based model to compute the average income in five years. Also, conditions on the field as area, water availability and initial investment are required. Using the Chilean costs and dollar-peso exchange rate, we can simulate several scenarios to understand the possible risks associated to this market.

**Keywords :** mixed integer problem, fruit production, support decision model, fruit tree farms

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