A Stochastic Linear Program for Tunisian Olive Oil Production Chain

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Olive oil sector is one of the most important agriculture activities in Tunisia. The olive oil is primarily exported in bulk to foreign suppliers. After the liberalization of the olive oil activities in 1994, the sector relies heavily on the performance of the olive oil producers. These producers are faced with an international competition. In this paper, we present a stochastic linear programming model to plan the production of a Tunisian olive oil producers. Under a recourse approach, a certainty equivalent for the proposed stochastic linear program is presented. A real set of data from the Tunisian olive oil producer RUSPINA is used, and results related to olive oil sector are discussed.

Keywords: Olive Oil Production Chain, Stochastic Programming, Recourse Approach