

Abstract

Agricultural is one of important sectors of economy in Indonesia. The number of farmers in Indonesia became a background, because it has been reach 40 million people. Most of them still using the tradition method in farming so that the obtained profits is not maximized.

Optimization is a process to achieve effective results from limited resources. Simplex method is one method to solve linear programming optimization case. Simplex optimization can be used because it can calculate the variable and constraint functions. The optimization system will use data water discharge data, land area and the type of plant as a limit factor.

The output of this research is the optimal cropping pattern. The conducted test, proves that the systems gives an improvement as big as 14.7 % of the profits of traditional cultivating without an optimization. Through this system the farmer is expected to utilize more land management by making the results of this system evaluation materials of Global Planting Plan (RTTG).

Keyword : Agricultutral, Optimization, Linear Programming, Simplex