

ABSTRACT

The agricultur sector is the largest sector that absorb the labor force in Central java, because it can absorb labor by 36%. One of the sub sector that have the largest contribution to Gross Domestic Regional Product in Central Java is the food crop sub sector, which one among food crops are sweet potato. The largest of regional production centres of sweet potato in Central Java has been located in Magelang Regency. Development of sweet potato farming experience various problems that production and productivity declined. This research aim to analyze the relationship between production factors to the quantity of production and analyze the efficiency of production factors sweet potato farming in Magelang Regency. The analysis model used is the Cobb-Douglass production and frontier production function.

This research used primary data with Simple Random Sampling. Data were analyzed by multiple regression analysis and frontier production function in order to determine the production factors efficiently.

The result showed that the variables of dung and pesticide are not significant and have a positive effect and variables seed, urea fertilizer and labor have a significant positive effect on the amount of sweet potato production in Magelang Regency. The value of technical efficiency, price efficiency, and economic efficiency is not equal to one, meaning inefficient so it is necessary to add production factors in order to achieve the optimum level. Return to Scale the result is equal to 1,062. This suggest that the sweet potato farm follow that the rules of increasing returns to scale, it can be said that sweet potato farming conditions inthe study area is feasible to be developed or followed.

Keywords : Efficiency, Sweet Potato, Production , Frontier