

ABSTRACT

Coffee is one of the leading plantation commodities that plays an important role in regional economic development, particularly in Bener Meriah Regency, which is widely recognized as a production center of Gayo Arabica coffee. Timang Gajah District has a relatively large coffee plantation area; however, its productivity remains lower compared to other districts. This study aims to analyze the factors influencing coffee production in Timang Gajah District, Bener Meriah Regency. This research was conducted in Timang Gajah District using a survey method. The data used consisted of primary and secondary data. The research sample comprised 60 coffee farmers selected through a snowball sampling technique from three selected villages, namely Mude Benara Village, Suka Damai Village, and Blang Rongka Village. Data analysis was carried out using the Cobb-Douglas production function with the Ordinary Least Square (OLS) approach. Coffee production was used as the dependent variable, while land area, labor, fertilizer, pesticide, and plant age were employed as independent variables. The results of the study indicate that land area, labor, fertilizer, pesticide, and plant age simultaneously have a significant effect on coffee production in Timang Gajah District. Partially, several variables show a significant influence on coffee production, indicating that optimizing the use of production factors is essential to increase coffee output. Therefore, improving coffee productivity can be achieved through more efficient management of production factors, particularly land utilization, input application, and rejuvenation of coffee plants.

Keywords: Arabica coffee, coffee production, production factors, Cobb-Douglas, Timang Gajah District