

ABSTRAK

This study aims to analyze the factors influencing the production and efficiency of Chili Pepper farming in Labuhanbatu Regency. The study was conducted using a survey method on 84 Chili Pepper farmers selected using simple random sampling. Production factor analysis was conducted using the Cobb-Douglas production function with input variables in the form of land area, pesticides, seeds, fertilizers, and labor. Furthermore, technical, allocative, and economic efficiency analyses were conducted using the Data Envelopment Analysis (DEA) approach with the assumption of Variable Return to Scale (VRS). The results showed that simultaneously all production factors significantly influenced Chili Pepper production, but partially only land area had a significant effect on production. The average value of technical efficiency was 0.70, allocative efficiency was 0.51, and economic efficiency was 0.37. These findings indicate that Chili Pepper farming in Labuhanbatu Regency is not yet efficient as a whole and still has considerable opportunities to increase production and efficiency of input use.

Keywords: Chili Pepper, Economic Efficiency, Labuhanbatu, Chili Pepper Production, Farming