

ANALYSIS OF TECHNICAL AND ECONOMIC EFFICIENCY OF THE USE OF PRODUCTION FACTORS AT CABBAGE FARMING IN GETASAN DISTRICT SEMARANG REGENCY

Arifin, Zaenal¹., Edy Prasetyo²., and Bambang Mulyatno Setiawan²

^{1,2} Faculty of Animal Husbandry and Agriculture, University of Diponegoro,
Semarang - Indonesia

Corresponding Author: arifinzaen1985@gmail.com

Abstract: *The research aims to analyze the effect of factors of production (land area, labor, seeds, fertilizer, pesticides) on cabbage production; analyze the scale of cabbage farming; analyze the level of technical efficiency of the use of cabbage farming production factors; and analyze the level of economic efficiency of cabbage farming in Getasan District, Semarang Regency. The study was conducted in February 2018 in Getasan Sub-District, Semarang Regency. The study was conducted using survey methods and sample determination using the multistage random sampling method. The number of samples was determined by the Slovin method and obtained a sample of 100 cabbage farmers. Data analysis was performed using the Cobb-Douglas model production function, production factor elasticity analysis, marginal product value analysis, marginal cost of production input. The results showed that the factors of production of land area, seeds, organic fertilizer, chemical fertilizers and liquid pesticides had a significant effect on cabbage production, while the factors of production of solid pesticides and labor did not significantly affect cabbage production. Farming scale is in the condition of increasing return to scale with an elasticity value of 1.113. Cabbage farming in Getasan District is not yet technically efficient with an average efficiency of 86.8%. The use of land production factors, seeds, organic fertilizers, chemical fertilizers, and liquid pesticides has not been economically efficient. The use of factors of production of solid pesticides and labor is not economically efficient.*

Keywords: *Cabbage, Factors of Production, and Efficiency*

I. INTRODUCTION

Cabbage is one of the main horticultural commodities in Central Java. Semarang Regency is a cabbage producer in Central Java and its production centers are in Getasan District. The harvest size of cabbage harvest in Kecamatan Getasan in 2016 was 980 hectares or had a proportion of 76% of the total area of cabbage in Semarang Regency with a total production of 163,006 quintals (BPS Semarang Regency, 2017).