## Profitability Comparative Analysis of Soybean Farming Based On Variety in Grobogan Regency, Indonesia

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## Abstract

The aims of study were to analyze income of soybean farming and comparative of soybean farming profitability based on the variety. The research was conducted in three districts of soybean production and development centers, namely Purwodadi, Pulokulon and Ngaringan. The study used a survey method, while the determination of sample used Purposive Stratified Quota Sampling Method as many as 80 respondents. Data were analyzed by farm income and profitability. The results showed that the income per season for Grobogan, Gepak Ijo and Anjasmara varieties were IDR 8,219,723.97/ha; IDR 9,443,540.25/ha and IDR 5,496,020.79/ha respectively. While the profitability for each variety was 100.06%, 141.45%; and 74.96% respectively. The profitability of soybean farming of Grobogan variety was not significantly different with Gepak Ijo variety and also with Anjasmara variety. However, the profitability of soybean farming of the Gepak Ijo variety was significantly different with the Anjasmara variety.

Keywords: Income, profitability, soybean farming, variety

## Introduction

1.1. Background

Soybean is one of the food commodities that are needed by the people of Indonesia because it is a source of vegetable protein, fat, vitamins and minerals. The protein content contained in soybeans is the cheapest value compared to other protein sources (Winarsi, 2010). Soybean is also useful as green manure because it can increase soil fertility (Purwono, 2007). Soybean has emerged as the golden bean of the 21<sup>st</sup> century. It is looked upon not merely to supply st food for humans and animals but also improves soil fertility by fixing atmospheric nitrogen (Prasanna *et al.*, 2021)

In 2017 Indonesia's total soybean production was 982,598 tons, while the national soybean demand reached 3.36 million tons (BPS, 2018). This condition causes a shortage of meeting the national soybean needs, thus requiring the government to import. Soybeans are not only used for direct consumption needs, but also for activities that can increase the added value of these commodities. These activities include the processing of soybeans into processed products, namely tofu, tempeh, tempeh chips, and other processed foods.

Grobogan is a regency as the largest contributor to soybean production in Central Java. Total soybean production in 2018 in Grobogan Regency reached 54,065 tons, while the total soybean production in Central Java Province was 129,794 tons. This condition means that as much as 37% of soybean production in Central Java is produced from Grobogan Regency (BPS, 2018). Soybeans that are developed in Grobogan Regency have various varieties, namely the Grobogan variety, Gepak Ijo variety, and Anjasmara variety. Of the three varieties, the Grobogan variety is the dominant variety cultivated by farmers. Meanwhile, farmers who cultivate the Gepak Ijo and Anjasmara varieties have relatively few populations and are concentrated in Ngaringan District, Grobogan Regency. From the variety of soybean, of course there are differences in several ways, both in terms of production costs, production quantity/productivity, production revenue, as well as in terms of income and farm profitability. Seed is one of the important crop production inputs, especially of new varieties remains a big challenge (Katungi *et al.*, 2011). The condition is in accordance with the statement Ogbabe *et al.*, 2017 that several soybean production technology including improving varieties, crop management and protection techniques have been continuously generated by agriculture research and disseminated to farmers for enhancing productivity and profitability.