The Effect of Behavior and Characteristics of Shallot Farmers on Production Risk in Deli Serdang District

by Siti Nur Arafah
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Abstract
Horticulture is part of the agricultural sector which has received quite a lot of attention by the government to continue to be developed. Shallots are horticultural crops that are currently widely grown in Indonesia and have high economic value and demand. The development of shallot farming is basically aimed at increasing the productivity and welfare of farmers. However, shallot cultivation does not fully provide maximum benefits for farmers. This happens because of the risk in the implementation of onion farming. The risk factors that occur are production risk and shallot price risk. Production and price risks will reduce the income of shallot farming so that the household income of farmers decreases. Therefore, agricultural development through increasing productivity must be in line with the handling of the risks faced. The research area was determined purposively, namely in Liang Pematang Village, Sinembah Tanjung Muda Hulu District, Deli Serdang Regency, with the consideration that the area is one of the shallot production centers in Deli Serdang Regency. The sample in this study were farmers who were working 17 shallots in the research area. The samples taken were 30 shallot farmers. Farming risk level analysis using Failure Mode and Effect Analysis (FMEA). From the results of the study, it is known that the characteristics of shallot farmers are farmers of productive age and the dominant education is quite high at the high school level. Most farmers own more than 2,000 m\textsuperscript{2} of land, and have been farming for more than 10 years and the land used is their own land. The risks faced in shallot farming based on severity from the highest to the lowest are the selling price of shallots, fertilizer prices, weather conditions, pest attacks, availability of seeds, diseases and labor.

KEYWORDS: Shallots; Farmer Characteristics; Risk Sources; Failure Mode and Effect Analysis (FMEA)

INTRODUCTION
Agriculture is a sector that contributes significantly to the Indonesian economy. The agricultural sector contributes to the fulfillment of national food and raw material needs in the food industry sector, as a provider of employment, and as a source of livelihood for the majority of Indonesian people. The agricultural sector consists of several sub-sectors including food crops, horticulture, fisheries, forestry, livestock and plantation sub-sectors.

Horticulture is a sector that gets a lot of attention from the government to continue to be developed. The supply of national horticultural products is directed to meet the needs of domestic consumers, either through traditional markets, modern markets, as well as foreign or export markets (Directorate General of Horticulture, 2015). In addition, horticultural commodities can be a source of income for the community and farmers, both small, medium and large scale.

Shallots are horticultural crops that are currently widely grown in Indonesia and have high economic value and demand. In Indonesia, shallots are developed and cultivated by farmers from
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