

## CONCLUSIONS AND SUGGESTIONS

### A. Research Conclusions

Based on the results of research regarding the profile and characteristics of shallot farming in Baso District as well as forecasting the selling price of shallots at the farmer level of Baso District, it can be concluded that:

1. The farmers who participated as respondents in this research were aged 24 years to 73 years with 91% of the productive age category. Most respondents use their own land. The average productivity of shallots in each subdistrict ranges from 1 ton/ha to 14.38 tons/ha with the average productivity reaching 6,441 tons/ha and this average productivity is lower than the national productivity. Shallot farmers in Baso District still work manually using agricultural equipment such as hoes and sickles with the time required from clearing land to planting seeds is 10 days until 1 month. The seeds used are generally purchased from farmers in Alahan Panjang Subdistrict and from their previous production as seeds to save costs. The production is sold to retailers and consumers directly in the market. Prices are determined according to market prices, but farmers always look for price information at several nearby markets.
2. Based on the forecasting results, the best model was obtained to predict the selling price of shallots at the farmer level of Baso District with the equation:  
$$Y_t = 17916.91 + (0.596242)Y_{t-1} + (0.262912)Y_{t-2} + (0.365212)Y_{t-3} + (0.106696)Y_{t-4} - (0.590349)Y_{t-5} - (0.254803)e_{t-1} + (0.724041)e_{t-2} + (1.056)e_{t-3} + (0.718955)e_{t-4} - (0.422770)e_{t-5} - (0.877096)e_{t-6}$$
This model has the smallest MAPE value of 24.38647 which is significant in the T-test, has the largest R<sup>2</sup> value, and has the smallest AIC and SC values.
3. It is estimated that there will be a decrease of shallots price up to IDR 8,389.94/kg in February 2023, increase until IDR11,365.73/kg in March, followed by a decrease until May 2023 of IDR8,152.93/kg, it will also increase reaching IDR12,263.06/kg in July 2023, for the last decrease in August 2023 in the price of IDR11,810.38/kg. Towards the end of the year, it is possible that the price of shallots at the farmer level will increase from IDR14,268.01/kg to IDR19,203.25/kg in September 2023, October 2023, November 2023, and

December 2023. It is possible there are different results between forecasting and the actual data.

### **B. Research Suggestions**

Based on research that has been carried out, the author advises farmers to increase the supply of shallots in September 2023, keep supplies till December 2023, and start replanting the shallots in new year. Shallots productivity in Baso District needs to be increased further to anticipate possible price increases in the future so the supply is sufficient and prices can be more stable. Also, training, outreach, or field school activities are needed to provide and disseminate information regarding Plant-disturbing organisms to farmers as a solution to productivity problems and stability of the supply of shallots in Baso District.

There are several limitations of research in this research such as locations that are difficult to reach, limited data availability so that it is difficult to analyze using other models such as SARIMA, limitations of analysis using software so that it cannot test all existing possibilities, and the accuracy of farmers' land area. Therefore, it is advisable to conduct further research to better prepare for transportation possibilities, try to find the data that have a lot of previous data, try to use other software that is more possible, and check data with the help of existing technology.

