Analysis of Onion Plant Business in Nganjuk District
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ABSTRACT
Development in the agricultural sector was synonymous with national economic development, this was related to the adequate availability of food needs for all Indonesian people. The aim of the research was to analyze the shallot business in Nganjuk, East Java. The experimental design used a quantitative descriptive method with data tools obtained by interviews with 15 onion farmers. The results of observations and analysis of onion production in Nganjuk have the potential to be developed and increase farmers' income. The production costs are relatively high compared to rice and corn crops. Therefore, good farming skills and business were needed to make a profit.
INTRODUCTION

Nganjuk Regency was in a position surrounded by the Wilis mountains to the south which borders the districts of Kediri, Tulungagung and Trenggalek, the Kendeng mountains to the north which borders Bojonegoro Regency. The geographic location of Nganjuk Regency causes the weather to be hot, but strong gusts of wind descending from the plains of Kediri and Tulungagung Regency down through the northern slopes of the Willis Mountains and being blocked by the Kendeng Mountains cause gusts of cold air to hit the Nganjuk area. The hot weather and cold gusts of wind mean that rice, shallots, corn and paddy plants grow very well.

The potential for shallot, rice and corn crops in Nganjuk Regency was very large, in addition to the support of the climate and weather which is very good and suitable, the skills and expertise of farmers are very reliable in terms of farming the three commodities above. In fact, the abilities and expertise of Nganjuk Regency farmers have become reference and study material for farmers at the national level. This condition makes agricultural products unable to compete with agricultural products from other countries. For this reason, the added value of competitiveness, adequate storage capacity, quality of sales value according to time and needs and a market expansion system with an online application system were innovation steps in order to increase competitiveness in the modern era.

The characteristics of tropical food crop and horticultural products were that they are seasonal products, produced from small-scale businesses, scattered production, were bulky, low quality, easily damaged, do not have a long shelf life, low prices during the harvest season, and the widespread practice of purchasing harvests in bulk. Slash. Slashing causes the supply price of food and horticultural crop products in the market to increase so that the selling price for farmers becomes cheaper for (onions, rice, corn).

LITERATURE REVIEW

Agricultural development was still faced with a number of classic problems, namely that the majority of agricultural businesses do not have sufficient added value due to being sold during peak harvest conditions, not meeting the economic scale, the technology used is still simple, capital was limited and access to financing was difficult (Anonymous 2012). Food availability was closely related to the development pattern of food center areas, good cultivation systems, good post-harvest management systems and good distribution and storage systems. The agricultural sector in calculating Gross Domestic Product (GDP) was supported by 5 (five) subsectors, namely the Food Crops and Horticulture subsector, the Plantation Subsector, the Livestock Subsector, and the forestry Subsector (Musa, 2012)

The impact of the big shallot harvest in Nganjuk Regency from the beginning of August to October was a routine condition for the price of Nganjuk shallots to fall to the price level of Rp. 25,000 - Rp.27,000. The decline in shallot prices is because Brebes, Demak and Pati were also experiencing a bumper harvest, resulting in overstock production. This capability was expected to 1) reduce the flow of rice, corn and shallot production to the market at one time
while reducing selling prices at the farmer level. 2) farmers can enjoy regular prices for rice, corn and shallot products throughout the season, 3) increase the food security of farming households, 4) can reduce farmers' dependence on markets to meet food and horticultural needs.

All the problems related to the peak harvest season for shallot, rice and corn products in Nganjuk Regency which resulted in prices falling, the regional government of Nganjuk Regency gave the option to conduct studies and research to create a concept of sales delay management with warehouse receipts. Shallot (Allium Ascalonicum L.) agribusiness has opportunities in the national economy. In its application, shallot agribusiness is an activity that contains links between each sub-system from upstream to downstream that influence each other. The sub-system in shallot agribusiness consists of three subsystems, namely, pre-production subsystem (up-stream agribusiness), production subsystem, and post-production subsystem (down-stream agribusiness) (Krishnamurthi and Fausia, 2009).

The physical morphology of shallots can be divided into several parts, namely roots, stems, leaves, flowers, fruit and seeds. Shallots have fibrous roots with a shallow root system and scattered branches, at a depth of between 15-20 cm in the soil with a root diameter of 2 - 5 mm (AAK, 2004). Shallots are round in shape with blunt ends enclosing 2-3 seeds. Shallot seeds are flat, white in color, but will turn black when old (Rahayu, 2012). Shallots can grow in a variety of environmental conditions. To obtain optimal results, shallots need good environmental conditions, adequate availability of light, water and nutrients. Excessive watering can cause soil moisture to become high so that the tubers grow imperfectly and can rot. The research objective is to study and analyze the shallot business in Nganjuk. The benefit of research was to provide insight and motivation to shallot farmers to actively plant this superior commodity. It is suspected that the results of this business analysis can have an effect on increasing production. The method used is quantitative testing of data obtained through field surveys and interviews with local farmers.

**METHODOLOGY**

The research location was Nganjuk district. The research period is from June to September 2023. This research was a type of quantitative descriptive research that describes by providing a description of an object being studied through sample or population data as it was, without carrying out analysis and making conclusions that apply to the general public. Descriptive analysis means that research focuses analysis on existing data or facts and solving current problems. Researchers use a method by collecting data and information to find out in depth about the problem of mapping buffer storage needs in helping farmers increase the selling value of agricultural products.
RESULTS
Observation Result

Nganjuk Regency was one of the districts in East Java Province which was located in the western part of East Java Province. Astronomically, Nganjuk Regency is located at coordinates 111°5' to 111°13' East Longitude and 7°20' to 7°50' South Latitude. Geographically, Nganjuk Regency has boundaries; to the north it borders Bojonegoro Regency, to the south Kediri and Trenggalek Regency. In the eastern and western regions it borders Jombang and Kediri Regencies, as well as Ponorogo and Madiun Regencies, or the equivalent of 122,433 Ha consisting of the following:
1. Rice fields 43,052 Ha
2. Dry land 32,373 Ha
3. Forest land 47,007 Ha

An area located in the lowlands and mountains, Nganjuk Regency has soil conditions and structures that are quite productive for various types of plants, both food crops and plantation crops, so they really support economic growth in the agricultural sector. This productive land condition and structure was also supported by the Widas river which flows for 69,332 km and irrigates an area of 3,236 Ha, and the Brantas river which can irrigate 12,705 Ha of rice fields. The largest amount of rainfall per month during 2002 occurred in January, namely 7,416 mm with an average of 436 mm. Meanwhile, the smallest occurred in November with rainfall of 600 mm with an average of 50 mm. From June to October there was no rain at all. Table 1 explains the comparison of working capital for agricultural cultivation in Nganjuk.

Table 1. Comparison of Capital Requirements for Rice, Corn and Shallot Farmers in Nganjuk Regency

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Capital required to plant 1 Ha (Rp)</th>
<th>Capital required for planting 0.25 Ha (Rp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paddy</td>
<td>Rp 13,880,000</td>
<td>Rp 3,470,000</td>
</tr>
<tr>
<td>Corn</td>
<td>Rp 16,010,000</td>
<td>Rp 4,002,500</td>
</tr>
<tr>
<td>Bawang Merah</td>
<td>Rp 32,912,500</td>
<td>Rp 13,227,125</td>
</tr>
</tbody>
</table>
DISCUSSION

This research has the following benefits:
1. Theoretical/Academic Benefits
   It is hoped that this research will be able to provide research work that can be a solution that can be an alternative to this problem by building a management system that regulates the post-harvest flow, good warehouse storage, good data collection, and a buffer for farmers' capital for farming costs at the time of harvest. the sale was postponed
2. Empirical/Practical Benefits
   Related parties can develop knowledge regarding increasing reserves of food and horticultural crop products (rice, corn, shallots) and one alternative solution for price stability and maintaining agricultural commodity stocks. Besides that, farmers can delay the selling time and wait for the right time to get a better price. Prepare products that guarantee the quality and quantity of the goods stored.
3. The government can make policies regarding reserves of food and horticultural crops (rice, corn, shallots) and can motivate and encourage farming communities to work as a group so as to increase their bargaining position regarding their products. There is a bank guarantee with harvest products that are postponed for sale as proof of ownership of the commodity or as collateral to obtain credit from banking or non-banking. So that from this sequence of flows a sales delay management system will be built for agricultural products based on local potential in Nganjuk Regency.

Figure 1. Location Map of Superior Plants in Nganjuk
Shallots (Allium ascalonicum L.) are one of the leading vegetable commodities in Indonesia which have long been intensively cultivated by farmers. This commodity is also a source of income and employment opportunities which makes a significant contribution to regional economic development. Apart from being used to make food spices, shallots can also be used as medicine. Apart from that, red onions are a source of vitamins B, C, potassium, phosphorus and minerals. The Indonesian population’s consumption of shallots from 1993-2015 showed fluctuating but relatively increasing development. The average consumption of shallots for 1993 was 1.96 kg/capita/year, in 2012 2.76 kg/capita/year and in 2015 shallot consumption reached 2.71 kg/capita/year. The highest level of shallot consumption occurred in 2007, reaching 3.01 kg/capita/year (Ministry of Agriculture 2016).

Shallots, one of the lowland vegetable commodities, are almost always needed by household consumers as a complement to daily cooking spices. It can be used as a traditional medicine because it contains the compounds allin and allicin which are bactericidal (Ambarwati and Yudono, 2003). Shallots can grow in a wide range of soil types, the important thing is that it has good aeration, is fertile and is able to provide sufficient water and maintain it for a relatively long time (Anshar, et al., 2011).

There were quite a lot of varieties of shallots grown in Indonesia. Several things that differentiate one variety from another include the height of the planting site, maturity, tuber shape, tuber color, dry tuber production, and disease resistance. The adaptability and yield stability of each variety is not the same. In order to get good results, it is necessary to know the adaptability and stability of the results of the shallot varieties that will be planted in a particular location. Varieties that have high yield potential in one location may not necessarily have high yields in other locations. This is in accordance with the research results obtained by Ambarwati and Yudono (2003) that of the various shallot varieties tested, some were able to adapt well and the results were stable in various testing environments. Some can adapt well and produce stable results if cultivated in a high-productivity environment, in this case in rice fields during the dry season.

Shallots are a commodity that is widely cultivated by Indonesian people. There are many benefits that can be taken from shallots and the high economic value of this vegetable, making farmers in various regions interested in cultivating them to benefit from this business potential (Dewi, 2012). The influence of seasons not only impacts production fluctuations but also causes price fluctuations. The perishable nature of shallot products causes prices to tend to fluctuate and prices change very quickly.
CONCLUSIONS AND RECOMMENDATIONS

A comparison of the characteristics and planting culture of rice, corn and onion commodity farmers was reviewed including land processing, capital, use of labor and business management. Overall, rice requires the least costs for the rice cultivation process, while shallots require very high costs. This shows that shallot cultivation requires a higher level of expertise and effectiveness to minimize the possibility of crop failure, which has the potential to cause huge losses for shallot farmers.

FURTHER STUDY

This research still has limitations, so it is necessary to carry out further research related to the topic of Analysis of Onion Plant Business in Nganjuk District in order to improve this research and add insight to readers.

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REFERENCES


Anonim. 2012. General Guidelines, Processing and Marketing Activities of Agricultural Products..


