PHYSICAL COMPOSITION OF BEEF CARCASS TO SELLING PRICE

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Abstract

The cattle industry in Indonesia is very important because it can provide an adequate supply of meat for the community. However, the cattle industry in Indonesia still faces various challenges, such as increasing production costs and low productivity. One way to overcome these challenges is to feed cattle with technology. The purpose of this study was to identify the effect of the physical composition of beef carcasses on the selling price of beef fed with technological feed. This study used a qualitative method with a descriptive approach. Data were collected using observation and literature study techniques. The results showed that the physical composition of cattle carcasses affects the selling price of beef. Cattle with heavier carcasses and a higher percentage of meat tend to have a higher selling price. In addition, cattle with a lower percentage of fat also tend to have a higher selling price. These findings suggest that the use of feed technology can improve the physical composition of cattle carcasses and increase the selling value of beef.

Keywords: carcass; selling price; beef.

INTRODUCTION

The cattle farming industry in Indonesia has a very important role in meeting the needs of the community for beef. As a country with the largest Muslim population in the world, beef consumption in Indonesia is quite high and continues to increase from year to year (Suryana et al., 2019). In addition, beef also has important nutritional value for human health, beef contains high protein and is a good source of animal protein for the body (Maiyena & Mawarnis, 2022). In addition, beef also contains vitamin B12, which plays an important role in helping the production of red blood cells and maintaining a healthy nervous system. Beef also contains iron, which helps in forming hemoglobin and improves brain and nervous system function (Darma et al., 2019).

The existence of the cattle farming industry in Indonesia is very important in providing sufficient meat supply to meet the needs of the community. In addition, the cattle breeding industry can also make a significant economic contribution, both in terms of beef production and sales (Diwyanto & Priyanti, 2008). This is because beef is one of the important food ingredients for the people of Indonesia and is the main ingredient in various traditional dishes. In addition, beef also has high economic value as a raw material for the food and pharmaceutical industries. Therefore, the development of the cattle breeding industry in Indonesia can make a significant and sustainable economic contribution to the country (Smith et al., 2018). Thus, the development of the cattle farming industry in Indonesia needs to continue to be carried out by taking into account aspects of animal health, farmer welfare, and environmental sustainability.

However, the industry still faces various challenges, including increased production costs and low productivity. This can lead to a decrease in the competitiveness of the cattle farming industry in the global market and increase dependence on beef imports (Oktaviani et al., 2014). Therefore, efforts need to be made to increase productivity and efficiency in the cattle breeding industry. One way to overcome this challenge is to provide technological feed to cows.

Feed technology can increase productivity and efficiency in cattle farming, so as to reduce production costs Syaiful & Agustin, (2019) and improve the quality of cow carcasses such as fat percentage, meat percentage, and bone percentage (Khotijah et al., 2019). Some studies have also shown that the use of technological feed can improve the quality of cow carcasses. A study conducted by Yakin et al., (2012) shows that technological feeding of beef cattle can improve the quality of beef carcasses, such as increasing meat percentage and bone percentage, and reducing fat percentage. The results of this study show that technological feed can improve the quality of cow carcasses produced. A similar study conducted by Gagaoua et al., (2016) showed that cows fed technological feed had a higher percentage of meat and a lower percentage of fat than cattle fed traditional feed. The novelty of this study is the existence of market research on the selling price of technology-fed beef, which has never been done before. Based on the description of the problem, researchers are interested in conducting a study entitled "Physical Composition of Carcass on the Selling Price of Beef". The purpose of this study was to identify the effect of the physical composition of beef carcasses on the selling price of beef.

METHOD RESEARCH

This study used a cutative method with a descriptive approach. According to Creswell, (2014) qualitative research is a type of research that focuses on understanding and interpreting the phenomenon under study through in-depth and detailed data collection. Data are collected through interviews, observation, and document analysis, and research results are presented in narrative or descriptive form. While the descriptive approach is a research approach used to describe and explain phenomena in detail and systematically (Notoatmodjo, 2012).

Data was collected by observational techniques, direct measurements on cows fed with technology, as well as literature studies obtained from books, journals and relevant information through Google Schoolar. Data on the physical composition of the cow carcass include carcass weight, percentage of meat, fat, bones and water. Meanwhile, beef selling price data was collected from the beef market in the research area, namely Pemecutan Village, Badung Regency, Bali.

RESULT AND DISCUSSION

Technological feed is animal feed made using advanced technology and high quality raw materials. In technological feed, the nutritional composition and energy content of feed have been measured precisely according to the needs of cows to produce optimal productivity (Ramli et al., 2011). In technological feed, feed ingredients such as corn, soybeans, fish, and bran have been mixed proportionally and processed with high technology such as extruder and pelleting machine so that the nutritional content in the feed becomes more stable and easily digested by cows. By providing technological feed to cows, cows will get optimal nutrition so that their productivity and health can increase.

Technological feed can increase productivity and efficiency in cattle farming because the feed is designed to meet the nutritional needs of cows optimally and precisely. In technological feed, the nutritional composition, content of proteins, fats, carbohydrates, vitamins and minerals are precisely regulated and adapted to the needs of cows at each stage of development. With proper and measurable feeding, cows can grow well and optimally, produce good carcass quality, and increase reproductive productivity and overall cow health (Kusmartono et al., 2021).

In addition, the use of feed technology can also help reduce production costs and increase the efficiency of cattle farming. With proper and measurable feeding, cows will grow faster and produce better carcass quality, thereby reducing maintenance time and maintenance costs (Manalu, 2020). It can also increase farmers' income from selling higher quality beef at higher prices. The research was conducted in Pemecutan Village, Badung Regency. The location was chosen because there are farmers who implement feed technology on their cattle farms. The use of technological feed is the feeding of

fermented feed made from a mixture of straw, bran, and vegetable waste fermented using certain microorganisms. This feed has a better nutritional content and is more easily digested by cows, so it can increase the growth and productivity of cows. In addition, technological feeds such as pellet feed containing complete and balanced nutrition are also often used in cattle farms.

Technological feeding on cattle farms has shown that cows fed the feed have a better physical composition of carcasses, such as a higher percentage of meat, a lower percentage of fat, and a better percentage of bones, which is 55%, while cattle fed with traditional feed only have a percentage of meat of 50%. In addition, cows fed with technology feed also have a lower percentage of fat, which is 10%, while cows fed traditional feed have a percentage of fat of 15%. The percentage of cow bones fed with technology is also better, which is 35%, while cows fed traditional feed only have a bone percentage of 30%.

Figure 1. Beef In Badung Market

Thus, the use of technological feed can improve the physical composition of beef carcasses which has an impact on increasing the selling price of beef. This can certainly improve the quality of beef produced and have an impact on higher selling prices. The quality of cows that have a high selling price usually has several characteristics, including (F L Syaiful et al., 2020):

1. High quality carcass

    Cows that have a good and healthy carcass with a high proportion of meat, little fat, and sturdy bones have a higher selling price.

2. Ideal live weight

    Cows with a live weight that conforms to the standard or ideal have a higher selling value. The ideal weight of adult bulls is about 500-700 kg, while adult heifers are about 350-500 kg.

3. Ideal cow age

    Cows sold at the right age have a higher selling price. Bulls are usually sold at the age of 18-24 months, while heifers are sold at the age of 24-30 months.

4. Good state of health

    Cows that are healthy, free from disease, and have good physical condition have a higher selling point.

5. Types of cows in demand

    Certain types of cattle, such as beef cattle or dairy cattle, have a higher selling price than other types of cattle.
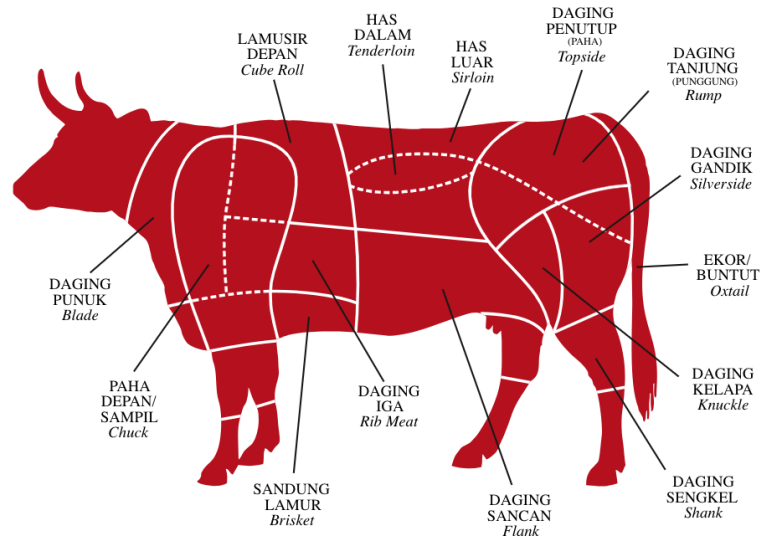
Figure 2. Beef composition

The use of technological feed in cows has been shown to improve the quality of bovine carcasses by increasing the percentage of meat, decreasing the percentage of fat, and increasing the percentage of bones. In addition, the use of feed technology can increase productivity and efficiency in cattle farming, thereby reducing production costs. This positive impact is also seen in the selling price of beef, a breakdown of the price comparison of beef fed with technology feed with those not described in the following table.

Table 1. Beef/kilogram price comparison

No	Meat Section	Price of Feed Meat Technology	Price of ordinary feed meat
1	Lamusir Front	Rp 156.000	Rp 150.000
2	Has In	Rp 178.000	Rp 173.000
3	Has Outdoor	Rp 140.000	Rp 135.000
4	Meat Cover	Rp 120.000	Rp 115.000
5	Cape Meat	Rp 35.000	Rp 28.000
6	Hump meat	Rp 118.000	Rp 115.000
7	Quadriceps	Rp 118.000	Rp 112.000
8	Brisket	Rp 112.000	Rp 96.000
9	Rib Meat	Rp 87.500	Rp 84.000
10	Sancan Meat	Rp 160.000	Rp 155.000
11	Meat Sengkel	Rp 112.000	Rp 104.000
12	Coconut Meat	Rp 175.000	Rp 168.000
13	Tail	Rp 68.000	Rp 65.000
14	Gandik Meat	Rp 149.000	Rp 135.000

CONCLUSION

Technological feeding of cows can affect the physical composition of the cow carcass, such as the percentage of fat, percentage of meat, and percentage of bones which ultimately affects the selling price of beef. Based on the results of the study, cows fed with technological feed have a better physical composition of carcass and a higher selling price of beef compared to cows fed regular feed. Therefore, technological feeding can be an effective alternative in improving the quality and selling price of beef. This can have a positive impact on farmers in increasing cattle productivity and increasing income from beef sales.

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