

The Opportunity of Timor's Deer Captive in Supports Food Security

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ABSTRACT

The purpose of this study was to determine the use of captive deer for food security for humans. The method used in this research is a survey. Based on Indonesia Government Regulation No. 8 of 1999 concerning Utilization of Wild Plants and Animals that the results of breeding or captive wild animals of the second generation [F2] and subsequent generations of protected species can be used for trading purposes with a permit as regulated in the Ministerial Regulation. Deer is a type of wild animal that has quite high economic value and has been used intensively to meet the needs of animal protein by people. This is strengthened because since 1990 the Government has issued that deer are one of the potential animals to be developed as livestock. This means that the results of captive Timor deer can be used for various purposes, including for food security.

Keywords: wildlife captivity; food security; deer

INTRODUCTION

Captive breeding is one commodity that can provide benefits to the surrounding community through involvement as a workforce. In relation to food security, it can be interpreted as the availability of access to existing food sources such as captive-bred Venison so that they can meet basic needs.

Deer is a wild animal that has great economic potential, so to increase its utilization it needs to be developed through captive breeding. Captive deer is one of the conservation and utilization efforts in accordance with the principles of yield sustainability and can increase economic value. The use of captive deer has long been carried out by people in Indonesia. In ancient times, humans obtained and used deer animals through hunting from their natural habitat. Venison is used to fulfill animal protein, as well as other by-products such as antlers, skin and innards for traditional medicine.

The government strongly recommends food security so that people have a strategy to deal with reality in the midst of a pandemic like what is currently happening. A pandemic is an outbreak of a disease that can cause people to experience food shortages, lack of jobs and malnutrition. Therefore, food security is one indicator to meet food shortages. Currently the government is trying to restore the community's economy due to the pandemic.

The actual international issue currently being faced by the world including the Government of Indonesia is the Covid-19 pandemic. In addition, people often talk about food security due to the spread of Covid-19. This is because the Covid-19 disaster can reduce access on all fronts, especially to meet the need for animal protein.

The impact of Covid-19 has caused work termination so that many people have lost their jobs. In addition, with the existence of the PSBB Regulation [Large-Scale Social Restrictions], transportation and the economy were disrupted and food prices in the market increased as well as access restrictions that prevented consumers from going to the market.

This paper discusses food security policies in Indonesia related to the successful breeding of Timor deer up to the second generation and beyond. Seeing the potential and problems with the demand for venison as well as the opportunities that can be exploited, it is necessary to study the substitution of animal protein needs for captive venison meat while at the same time encouraging people who have lost their jobs during the Covid-19 period to do deer breeding. Thus sustainability and utilization can be achieved. It is hoped that this paper can provide suggestions for the government to be able to include captive Venison stocks related to food security policies.

METHODOLOGY

This research was conducted in restaurants serving venison menus [Semarang and Yogyakarta]. The survey was conducted by direct interviews with restaurant owners and also several restaurant servers. This research was also carried out through a quantitative approach which was used to solve problems with a descriptive-qualitative approach as needed. Various descriptions of the roles and functions of institutions or individuals and entrepreneurs in the field of deer breeding and marketing and processing of venison in Indonesia.

FINDINGS AND DISCUSSION

Animal protein from meat is an excellent food source for the growth and development of children because it contains complete amino acids. However, in reality, the average level of consumption of animal protein, especially beef, in Indonesia is still far behind the world average and even ASEAN countries [BPS, 2021; Angelia, 2022]. The average public consumption of beef is 2.2 kg each person while the world average is 6.4 kg each person. Beef occupies the lowest position with an average consumption of 0.038 kg each month.

According to the Indonesian Ministry of Trade, the main obstacle causing the scarcity of meat consumption in Indonesia is the low purchasing power of the people for meat because so far meat is still a luxury food commodity with relatively high prices. In addition, the amount of beef production in the country has not been sufficient for the consumption needs of the Indonesian people. Another obstacle is the existence of problems in the distribution channel and trade system for meat in Indonesia. These constraints then lead to a scarcity of the amount of meat on the market which according to economic law if the amount of production does not meet market demand it will have an impact on increasing the price of the meat itself.

Food security is not only interpreted as food adequacy but also protein adequacy both vegetable and animal. According to the BPS report [2022], the average protein consumption in Indonesia in 2022 is 62.21 grams and is already above the national protein consumption adequacy standard [57.0 grams/person/day]. Of the average protein consumption of 62.21 grams, only 4.79 grams came from meat. The estimated domestic demand for meat in 2022 is 711,885 tons or the equivalent of 3.6 million head of cattle. Meanwhile, the need for beef is 2.57 kg/person/year and the national meat production is 436,704 tons per year. Therefore, to meet this need, the government uses imported meat supplies.

Due to the lack of animal protein from conventional livestock, Venison has the potential to be used as an alternative animal protein. Currently the use of venison at Kedai Redi Ayu Semarang with menus from captive-certified Timor deer is quite popular. There is also Pawon Alas Eco Edu Forest which is open Tuesday to Sunday at 11.00 – 19.00 and closes on Monday. The address is at Jalan Wonosari Km 30 Gading, Playen, Gunung Kidul or to be precise in the WANAGAMA Forest Area, Yogyakarta. The deer processed food menu available is steak, satay, tongseng, ribs and deer seasoned fried rice, with prices varying from Rp. 35.000-175.000,-.

According to Semiadi and Nugraha [2004], Venison is rich in nutrients and beneficial to health, where the percentage of Venison carcass is 44.3% of live weight, low cholesterol content [58 mg/100 g], fine texture and fiber. , soft, easy to digest. , low fat content [7.0%], high protein [21.10%] and a ratio of meat and bone 4.7:1.0 higher than beef [4.4 : 1.0].

The results of Mukhtar and Suita's research [2002] stated that there was still a high supply of Venison products from abroad by testing 17.86% of restaurants in Jakarta that provided Venison menus. Therefore, optimizing deer breeding needs to be done to balance government policies.

Venison is a source of animal protein which has the potential and superiority in producing meat with a soft texture, red color and low cholesterol so it is very popular and has high economic value.

Body parts of deer that have high economic value are velvet [horns or young antlers], male reproductive organs [testes], leg bones, skin, and hard horns [Garsetiasih and Takandjandji, 2006]. Horns can be produced without having to slaughter a deer. In the world of medicine, velvet can be used as a medicinal ingredient [Takandjandji and Sutrisno, 2006].

Venison is currently widely circulated in the market, both in big cities and in the regions, although it is still very limited. However, it is not sufficient for consumer needs, so Venison is still imported from outside Indonesia. Therefore, the government must support intensive nurseries such as animal husbandry so that the products produced can be harvested sustainably [Susmianto, 2002]. Market demand is quite high, it must be anticipated immediately with a captive breeding program which is not only for conservation purposes but can also improve people's welfare, especially during a pandemic.

The use of Venison in restaurants that provide Venison is experiencing a severe shortage of deer stock, so it is necessary to provide Venison through the development of large-scale captive breeding. The use of venison as one of the menus provided for consumers who are interested in meat has been carried out by several restaurants in big cities.

According to the results of Mukhtar and Suita's research [2002], several restaurants in DKI Jakarta have served venison-based menus in the form of satay and steak. Based on interviews, as many as 44.4% of visitors have eaten this dish. Meanwhile, two restaurants [7.14%] out of a total of 28 restaurants tested stated that they had served a menu of deer dishes. Based on the tastes or desires of restaurant visitors, 64 people [84.21%] of the total 76 visitors tested said they wanted to taste the deer menu. In addition, the potential for Venison production is quite high with a carcass percentage of 56-58% compared to only 51-55% for cattle and 44-50% for sheep [Semiadi and Nugraha, 2004].

Venison contains low cholesterol and fat, is tender, has a distinctive taste [gamey flavour] and is low in calories. This is what makes Venison in great demand by consumers who are interested in meat in the upper middle class.

The success of captive deer in Dramaga is inseparable from captive breeding techniques that are adapted to deer behavior in nature, such as habitat and feed that are always available as well as animal welfare treatment so that deer in captivity feel like they are in nature. Thus the deer breeding continues to increase without constraints and produce offspring that are as expected. The ease of doing deer breeding is able to provide sustainable products that remain stable and balanced at an affordable cost, so that deer can become one of the animals of hope for food security and the health of the Indonesian people in general, especially during a pandemic. Venison and velvet are very useful for fulfilling animal protein and as a traditional medicine that can increase stamina.

Deer breeding that is commonly practiced in Indonesia is a cage system and feeding is done by cut and carry. Breeding with livestock systems is only a little done because it requires a large area of land. The deer breeding system can be applied in the East Sumba area which has vast savanna fields as far as the eye can see. In the past, there were many deer in East Sumba, but with lots of hunting, the deer population has decreased.

Therefore, if breeding deer is carried out using a livestock system, it can be used as a supply of animal protein to overcome the shortage of animal protein that is occurring in Indonesia.

Feeding deer is almost the same as feeding goats or sheep, based on body weight and physiological status by feeding two to three times but feeding more at night than in the morning and evening. This is because deer are animals that are active at night. The type of feed given varies, consisting of grass, leaves, nuts, tubers and concentrates.

Venison is an important food ingredient for the fulfillment of nutrition in the form of animal protein. Apart from being high in protein, Venison also contains complete and balanced essential amino acids. Another advantage, venison protein is easier to digest than beef or lamb. Venison food also contains several types of minerals and vitamins.

The quality of venison is generally assessed by consumers initially through the approach of color, tenderness, taste and juiciness. Organoleptic [sensory], color can be assessed by sight, tenderness is assessed by touch and taste, taste is assessed by taste and smell, and wetness is assessed by taste.

Humans in the world have been consuming Venison for centuries and even longer than consuming beef or lamb. Consuming venison lends itself to a meat diet to overcome lean meat over meat from other, higher-fat species. This means that in modern times and pandemics like this it is more suitable to consume venison with a low fat content. Therefore, consumer demand for venison is increasing because of its quality and low fat, which is currently more suitable for physiological needs and modern lifestyles.

Timor deer is one of the animals that has several potentials, among others, its existence is spread throughout almost all of Indonesia, Venison or meat has a low fat content, antler by-products, both velvety [young horns] and hard, and its skin has high economic value [Takandjandji, Setio and Kayat, 2018]. This potential opens opportunities for the use of Timor deer, especially during a pandemic like this. However, to achieve this goal, it is necessary to carry out large-scale deer breeding as an effort to develop the population.

According to Semiadi & Nugraha [2004], the development of captive-scale cultivation was mostly carried out on Timor deer as a type of tropical deer with a total percentage of 90%, while the remainder [10%] consisted of sambar deer [unicolor deer] and spotted deer [Axis]. This species is considered to have high economic value, both for tourism potential and as a producer of meat, skin and hornbills. Timor deer species are superior and widely developed through captive breeding in Indonesia on a small scale [Garsetiasih, Takandjandji and Sihombing, 2019] even in West Java Province having \pm 190 captive units.

CONCLUSION

The Timor deer has a considerable opportunity to support food security, because the people like its meat and the by-products of cutting such as skin and innards still have high economic value, therefore it is highly recommended that captive-breeding be carried out as an effort to preserve and increase their population in order to support food security.

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