



# Discovering Rabbit (*Oryctolagus cuniculus* L.) Farming in Partido, Camarines Sur, Philippines: Raisers' Perspectives

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## Abstract

Rabbit farming is a growing sector of the livestock industry in the Philippines and is believed to be profitable when managed properly because of its potential as a healthy meat source and a source of income. This paper establishes benchmark data on rabbit farming in Partido, Camarines Sur, Philippines to aid in the decision-making process of Local Government Units, agricultural extension workers, researchers, associations of rabbit breeders and raisers, and entrepreneurs, for relevant interventions. It focuses on the profile of rabbits raised in the area, sources of rabbit stocks, the costs associated with the purchase and disposal of stocks, perceptions of raisers towards meat, and the challenges in raising and processing meat from rabbits. The collaboration with Local Government Units and the snowball method helped to identify rabbit raisers as key sources of information. Several breeds were identified, and descriptively defined, and sources inside and outside of the district were tracked down. Meat breeds including New Zealand, Californian, Chinchilla, Hyla Optima, Palomino, and Flemish Giant are among these breeds. English Spot, Holland Lop, Lion Lop, Fuzzy Lop, and Lionhead were frequently raised as pets. The preference for the breed is mainly based on raiser-perceived breeds' meat quality and market potential. As a promising sector, issues in producing rabbits and processing their meat necessitate focus and interventions.

## Subject Areas

Agriculture, Agribusiness

## Keywords

Rabbit Farming, Rabbit Raisers, Breed, Cost, Meat Processing, Challenges

## 1. Introduction

Rabbits (*Oryctolagus cuniculus* L.) are thought to be introduced in the Philippines decades ago by the US Peace Corps and certain religious missionaries in an effort to alleviate the problem of food scarcity brought on by World War II's devastation (Veneracion, 2017 [1]; Medenilla, 2021 [2]). In response, CARE Philippines released a book in 1982 by Sicwaten and Stahl titled "Complete Guide on Backyard and Commercial Rabbit Production" [3] that encouraged raising, marketing, and consuming rabbits as a new source of protein. In many regions of the world, including the United States and Europe, rabbits are farmed and commercialized similar to poultry, hog, and beef (Sarmiento, 2021) [4]. Today, rabbit is mostly grown on a large scale in Asia, Europe, America, and Africa.

Rabbit meat has excellent dietary nutritional characteristics. It has a somewhat high calorie value and contains protein and fats in levels that depend on the amount of meat. The vitamins B, E, riboflavin, pantothenic acid, pyridoxine, niacin, and B12 are also abundant in it. Although not as high as red meats like beef, lamb, and mutton, rabbit flesh nonetheless includes sodium and iron despite being white meat. The cholesterol content of rabbit meat is lower when compared to other meats. These elements, together with the fact that it is high in fatty acids, make rabbit meat a superior option for human consumption (Dalle Zotte, 2014) [5]. Due to its low calorie, fat, and hazardous cholesterol content, rabbit meat was classified as one of the healthiest meats for humans by the USDA (Veneracion, 2017) [1]. With its distinct nutritional benefits, rabbit meat is becoming more and more well-liked as a global source of functional meat (Dalle Zotte *et al.*, 2011) [6]. The Department of Agriculture views rabbit meat as a viable substitute for pork in times of shortage and when African Swine Fever is common (Go, 2020) [7].

Commercial marketing for raising rabbits as a meat source is prevalent. It is thought to be a potentially lucrative career that, with correct management, can significantly increase revenue. Rabbit farming can be beneficial in light of the current financial hardship and ongoing health issues. Rabbit meat has the potential to replace pork, according to the Department of Agriculture (Medenilla, 2021) [2]. There are farmers who take use of the possibility of raising rabbits for meat production and sale. Accordingly, some of the reasons to engage in rabbit farming include low investment and less space requirement; high reproduction; generally, very gentle, quiet animals, and cleanest vegetarian animals; easy and inexpensive to feed; have no rabies or leptospirosis. Moreover, rabbit farming has the advantages of using the animals as pets, in laboratory and experimental settings, in producing healthy, nutrient-rich meat, using the animals' fur, paws, and tails, and using the manure as fertilizer.

Breeders have been successful in creating new offspring from these available breeds. Similarly to this, owners of rabbits strive to breed their pets with other breeds to create new ones with varied traits. The Philippines has a number of established rabbit farms, but not enough to make the rabbit sector distinctive.

Some are raised in backyards beginning with two heads. As a result, the introduction of the rabbit as a meat source in the nation for a long time had not fully materialized. The Philippines typically produces rabbits as pets, which also provides a market for them. It is, nonetheless, regarded as a shadow economy. Due to its fondness for pets rather than as a meat source, production is minimal (Agribusiness Philippines, 2014). Moreover, most Filipinos keep rabbits as pets and are hesitant to kill them for meat (Sarmiento, 2021) [4].

In Partido, Camarines Sur, rabbit raising has been discovered to exist for about 2 years and is a growing industry in the district that information on the profile, production, and inventory information should be established (Lopez, 2022) [8]. Furthermore, the Department of Agriculture is providing assistance to the growing industry of rabbit production and distribution for meat consumption and livelihood. The Department will facilitate the development of guidelines and provide assistance to the industry, which is still in its infancy (DA Communications Group, 2021) [9]. Given these assumptions, this study was carried out to describe rabbit farming in Partido, Camarines Sur, with a focus on the profile of rabbit breeds and meat characteristics as described by the raisers, the sources of stocks, the costs involved in the purchase and sale, and the challenges in raising and processing rabbit meat. The potential of rabbit farming in the district is expected to be enhanced with the baseline information from this paper and appropriate interventions from government and non-government agencies.

## 2. Methods

The Fourth District of Camarines Sur, often known as Partido, is where the study was carried out. This employed descriptive and qualitative research techniques. The district's rabbit raisers and breeders were the study's respondents and were identified in a variety of methods: first, through coordination with the Municipal Agriculture Offices; second, through the snowball method asking respondents about other rabbit raisers they knew; third, through organizations for rabbitry. Respondents were rabbit raisers who met the following criteria: 1) raised rabbits in the Partido area; 2) had at least five heads of rabbit regardless of age; and 3) raised rabbits for meat, for sale, or as pets.

Data for the study were gathered using a researcher-made questionnaire that comprised five sections to capture the aims of this research: 1) breed identification and profile from the perspective of raisers; 2) sources from which these breeds were obtained; 3) purchase and disposal costs; 4) meat characteristics as described by raisers; and 5) difficulties in raising rabbits and processing their meat.

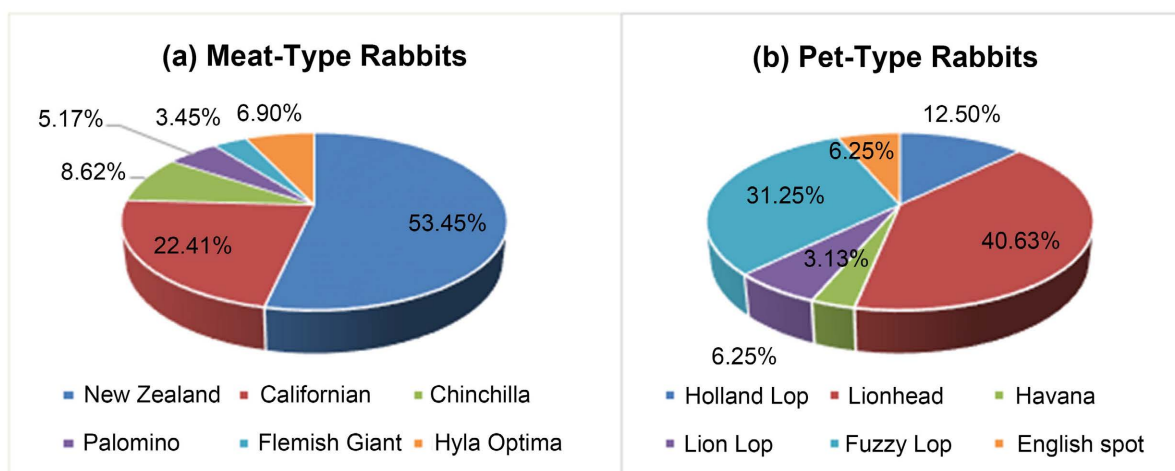
Data were analyzed using descriptive statistics. The frequency count and percentage were used to identify the breeds raised, the practices in selecting and selling stocks, and the most common raising and processing issues. Mean was used to calculate the cost of purchase and sale, as well as the raisers' preference for breed and meat.

### 3. Results and Discussion

#### 3.1. Raisers' Practices in Selecting Rabbits to Raise

Meat and pet type rabbits were both raised in Partido, Camarines Sur. New Zealand (53.45%) and Californian (22.41%) are the most commonly raised (**Figure 1**). These two kinds are said to be the most prevalent in other nations like the United States (AgMRC, 2022) [10]. Other breeds raised in the study area are Chinchilla, Hyla Optima, Palomino, and Flemish Giant. Rabbit meat has excellent dietary nutritional characteristics. It is a lean source of protein with less fat than beef. 29.1 grams of protein may be found in 100 grams of rabbit flesh. Additionally, it contains vitamin B-12, which is essential for the metabolism and generation of new red blood cells (Wendt, 2022) [11]. The amount of meat affects how much fat is present. Additionally, the meat contains a mediocly high energy value (Dalle Zotte, 2014) [5].

The breeds of rabbits most frequently raised in the district as pets are Fuzzy lop (31.25%) and Lionhead (40.63%). Other breeds are the Holland lop, Lion lop, English spot, and the Havana. The fact why rabbits make good pets is due to their cleanliness, affection, playfulness, entertainment value, and sociability. Rabbits are wonderful indoor pets and are adaptable to most living arrangements (AVMA, n.d.) [12]. Raisers ascertain the breeds of their rabbits through the information provided by the breeder-seller (47.62%) who can identify breeds based on observable features and on pedigree records; based on the physical characteristics (21.43%) and from mere sellers (9.52%). Reading materials (7.14%), YouTube (2.38%), seminars and trainings (2.378%), and other sources provided information and expertise about the qualities. Few (2.38%) consulted a technician or member of the Department of Agriculture staff. Unidentified breeds were those from raisers (7.14%) who just want to try keeping rabbits at home and allowed unplanned mating. Stock quality is a key factor in rabbit farming success. The breeds of rabbits to raise must be known to the breeders. Determining the breed of rabbit to begin with is therefore a challenging procedure, and one factor



**Figure 1.** The (a) meat-type and (b) pet-type rabbits raised in Partido, Camarines Sur, Philippines.

in choosing the breed is to decide the purpose for the rabbit (Reed and Christensen, 2019) [13].

The number of heads raised ranged from 20 to more than 100. Raisers often began with a doe and a buck pair of breeding-capable rabbits that could produce kits. Due to their ability to reproduce 12 times per year and overall ease of care, rabbits are becoming more and more popular among those who keep them for the purpose of sale (Arcilla in Tan, 2022) [14]. Rabbits were kept for a number of uses, such as breeding stock, laboratory animals for medical and educational research, food for pets, as pets and show animals, and for their wool and skin (Agricultural Marketing Resource Center, 2022) [10]. Unlike most livestock species, this one does not require a lot of land to raise. Small-scale rabbit farming has the benefit of requiring a negligible initial capital commitment, making it practically risk-free to begin (FAO, n.d.) [15]. Despite some raisers' claims that they are prone to illness, effective management enables raisers to run a profitable business. Moreover, a strong source of protein, rabbit meat is being encouraged by the Department of Agriculture as a potential substitute for pork but Filipinos are still opposed to eating rabbits (Medenilla, 2021) [2].

In selecting their stocks, different rabbit breeders had different criteria for choosing their stocks including the breed (37.50%), appearance (27.07%) and quality of meat (10.42%). Breeding rabbits is the primary concern and goal for breeders in order to continuously enhance the animals by choosing the desirable parent features (FABRE-TP, n.d.) [16]. Others (8.33%) considered the price.

### 3.2. Raisers-Identified Profile of Rabbits Raised in Partido, Camarines Sur, Philippines

1) New Zealand. New Zealand rabbits are grown largely for meat (**Figure 2**). A breed that ranges in size from medium to large is distinguished by broad muscles and rounded haunches. Its weight can range between 2.5 and 3 kilos. It is described as having dark eyes with red or brown pigment. The hair is of typical length. The ears are positioned upright or erect, and the mouth, which is known locally as an *ungos*, is elongated in structure. Its flesh is lean and has little or thin bones. Due to its ease of reproduction, it is known to have a high production rate and minimal mortality. Each time it gives birth, it can produce 2 to 10 kits. Although some breeders claim that New Zealands are sensitive, they are reported to be easier to raise than pet-type breeds. They are frequently caressed by raisers and are very friendly and loving, especially when used to seeing humans. However, when lifted improperly, they frequently kick or scratch. There are those who were fierce and anxious when pregnant. Purebred New Zealanders are red-eyed and larger than local New Zealanders. As a common breed in Partido district, New Zealand is commonly used to produce either purebred or crossbred stocks.

2) Flemish Giant. The breed is characterized by having large body built and feet. Flemish Giant rabbits are kind and tamed.



**Figure 2.** New Zealand rabbits.

3) Hyla Optima. A meat-type rabbit breed larger than New Zealand. Hyla Optima is of high-price in Partido, Camarines Sur. Some breeders combined Hyla Optima with Californian, and the resultant offspring are distinguished by their big, long ears. Some are larger than Palomino and some are the same size as New Zealand.

4) Californian. A meat-type breed identified by its huge size, compact build, well defined back curve, extended face structure (**Figure 3**), but not as long a mouth as the New Zealand. Its size exceeds that of New Zealand. Live rabbits weigh anywhere between 2.5 and 4 kilograms, and the meat is thin. It can produce seven to eleven kittens from one kindle. It has upright ears and a bent head. Californians are renowned for having black markings on their noses, ears, and tails, which vanish as they become older and darken during cold weather. Pure breeds had the dark black color markings. The tail of some Californian is grayish to black in color. There is a sock-resembled marking on its feet. The behavior is the same with New Zealand for being anxious. Male rabbits can be aggressive. Some shows have constant eating cravings. Additionally, mixed breed Californians have red eyes and black patches on their nose, ears and feet. Raisers commonly crossbred Californian with New Zealand.

5) Chinchilla. Standard chinchillas are tamed, less aggressive and described as heaviest rabbit in the farm of some rabbit raisers. (**Figure 4**) These are distinguished by their small size and gray fur color. They are frequently kept for their meat, which may weigh up to 3 kilos. Some raisers crossbred this with New Zealand.

6) English spot. The breed is characterized by having a black butterfly shape near its mouth parts and scattered in its back. Only few raisers in Partido area have this breed.





**Figure 3.** Californian rabbits.



**Figure 4.** Chinchilla rabbits.

7) Holland lop. A small-sized breed of rabbit, with a very bowed head, and loped down-pointed ears. (**Figure 5**)

8) Fuzzy lop. An extremely little breed that is curlier than Lionhead and has substantially longer hair than the majority of rabbit breeds. (**Figure 6**) The lop-shaped ears can a times droop to one side of the face. Although some breeders reported parts of this breed became violent and stubborn, this breed is lovable and affectionate. Its back features a double mane or V shape. Fuzzy lop is used to crossbreed with New Zealand hence, some develops upright ears. Others are crossbreeds with Lionhead and Californian.

9) Lion lop. Characterized by having brown fur color, hairy on the topmost part and droop ears. (**Figure 7**)

10) Havana. A breed simply described by rabbit raisers as having a cho-co-colored rabbit with fine fur. Only few raised them.

11) Lionhead. Considered by most raisers as pet-type. This breed is small. They have long, dense and lion-style fur in face, legs and thighs. Their face, legs, and thighs are covered in long, dense, and lion-like fur. (**Figure 8**) They are affectionate, friendly, subdued, and quiet, yet they can occasionally become agitated. When giving birth to kits, this breed of rabbits sheds their fur and uses it as a nest.

12) Palomino. Brown in color and is larger than New Zealand. (**Figure 9**) Some has markings. In Partido, some are mixed breed Palomino because raisers crossbred them with Californian or New Zealand. Some raisers noted that Palomino rabbits eat their kits.



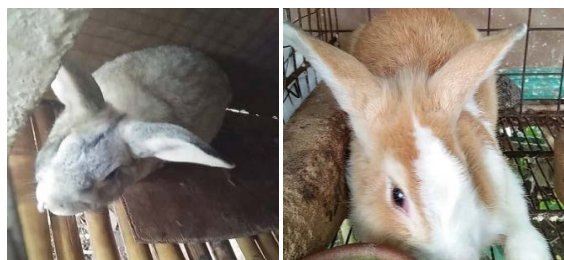
**Figure 5.** Holland lop rabbits.



**Figure 6.** Fuzzy lop rabbits.



**Figure 7.** Lion lop rabbits.



**Figure 8.** Lionhead rabbits.

13) PS 100. Upright ears. Color varies from white to dark as brown and black. Only few raisers in the district have this breed. (Figure 10)





**Figure 9.** Palomino rabbits.



**Figure 10.** PS100 rabbits.

*(Images of rabbits courtesy of the respondents of the study in Partido, Camarines Sur, Philippines, 2022.)*

Ranking rabbits in terms of breed preference, lean meat and a premium price put Hyla Optima on top. Ranked second is the Californian, which is good or simple to raise, has a huge body build, lean meat, and is able to give birth to 7 to 11 kits in a single litter while also being good at raising them. Generally dark in color and huge in stature, Californian crossbreeds have a pleasing appearance. New Zealand came in third. The preference was due to its characteristics as raised for commercial purposes. Having thin bones and lean meat, it is a medium- to large-sized breed. Leaner and larger flesh suggests increased earnings for the breeders. Since the buying price is modest, this breed is in demand from breeders, whether they are raising animals for meat or for pets. Typically friendly or domesticated, this breed of rabbit gives good care to its young. The color is a mixture, particularly in crossbred animals. The predominant breed in the research area is Local New Zealand. Fourth place goes to the Holland lop since some people love to pet this breed. The Flemish Giant, a form of beef distinguished by a wide throat area, comes fifth in rank. These were followed by Fuzzy lop, with good body built and demanded by those who like rabbits for petting; Chinchilla, a large-sized rabbit; Lionhead, with hairy, attractive appearance

suitable for pets although some raised them for meat purposes; Lion lop which are demanded as pets and English spot, and; Palomino, large-sized rabbits which are kind and tamed.

### **3.3. Sources of Rabbit Stocks Found in Partido, Camarines Sur, Philippines**

Breeders, pet stores, common raisers, friends, acquaintances, and family members were the main sources of rabbits raised in Partido, Camarines Sur. Transactions were done either through face-to-face or online transactions through social media pages. Some raisers said they began keeping rabbits from a stock that was a gift from friends or family. Others traded their available breeds with those of their acquaintances and then permitted to mate with the currently held stock. Raisers in Partido, Camarines Sur sourced their stocks from within the Bicol region specifically in the municipalities of San Jose, Goa, Tigaon, Ocampo, Sagnay, Libmanan, Pili, Naga City, Legazpi City, and Tabaco City. Breeds available in these areas include the New Zealand, Lion lop, Fuzzy lop, English spot, Californian, Flemish Giant, Holland lop, Hyla Optima, Lionhead, Chinchilla and Palomino. Purebred stocks of Hyplus were sourced from the farms in San Pablo, Laguna and PS 100 from Novaliches.

### **3.4. Costs Involved and Practices in the Purchase and Selling of Rabbits**

The cost to buy a rabbit depends on the animal's age and the current market price. Breeders and raisers noted that while prices for rabbits were high during the pandemic, they abruptly dropped in 2022. The breeder or seller set the price of the rabbits at the time of purchase.

The minimum age of rabbits purchased was one month, and the maximum age was one year, depending on the farm's stock availability and the number of purchasers present at the time. Pricing for rabbits is frequently determined by its age. Rabbits' weight varies depending on breed and source of stocks, although it typically rises with age. A breeder in San Jose, Camarines Sur claimed that rabbits fed with commercial feeds weigh more hence, so he practiced commercial feeds feeding to obtain a higher live weight and command a high price. The cost also varies depending on the supplier.

The cheapest purchase price of rabbits documented during the pandemic was P500 per head. Additionally, raisers spent up to P15,000 on purebred rabbit purchases. For instance, a breeder bought a four-month-old New Zealand rabbit that weighed 1.5 kg for P10,000 and a two-month-old Hyplus rabbit that weighed 2 kg for P15,000 from another breeder in Laguna Province.

According to the seller's marketing strategy, the majority of respondents (74.07%) offer rabbits live or as meat. In addition to those who traded rabbits for other breeds with friends or other raisers, 25.92% of the rabbit owners gifted their pets to friends or coworkers.

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Common buyers identified include friends, neighbors and relatives (29.17%), by-passers (20.83%), rabbit backyard raisers (16.67%), pet lovers (12.50%). Commercial rabbit raisers and breeders constituted both 6.25% of the buyers while meat processors, social media commenters, and local government unit that purchased rabbits for distribution as part of a project constituted 2.08% of the buyers. Buyers are from other municipalities and provinces of the region.

Similar to the age of purchase, raisers and breeders in the district began selling their stocks as early as one month. During the time of the survey, there were rabbit stocks on hand of raisers older than three months as reflected in the age at disposal. During selling, the price for a one-month old rabbit ranges from an average of P289.28 to P525.00. Some raisers and breeders sold at P700.00 to P1500 for rabbits aged three months. There were raisers and breeders who tried to crossbred breeds in their farm such as Fuzzy lop and New Zealand at which the resulting kits were sold at price similar to its parents or other breeds. Likewise, raisers crossbred Lionhead and fuzzy lop. Generally, practices include producing kits or stocks by crossbreeding both meat-type rabbits and meat-to pet-type rabbits.

Rabbits were sold either live or meat depending on the seller-buyer agreement, but the common practice is selling the rabbits live. Most seller-raisers (35.29%) utilized social media by either posting on their Facebook account or creating a Facebook page for the purpose, by order (29.41%) and direct selling (23.53%). Other methods are through referral (5.88%) and others are through displaying on the market sites and by-passers that both constitute 2.94%. In a study of Sunday (2022) [17], customers have the potential to know about rabbit farming through Facebook platform, and breeders made more sales using the same platform. Promotion and marketing of rabbit is now done online utilizing the platform available.

### **3.5. Rabbit Meat as Described by Raisers in Partido, Camarines Sur, Philippines**

The breeds of rabbits tried for meat consumption in Partido area were local New Zealand, Californian, Flemish Giant, English spot, Lionhead, Chinchilla and Fuzzy lop. Typically, the flesh is described as white, soft, lean, with little to no fat, and little bones. However, raisers only offered a limited number of distinc-

tive traits from other breeds. A kilogram of lean meat might be produced by five-month-old local Chinchilla and New Zealand rabbits, according to certain breeders. According to several respondents, the meat of a Californian rabbit is gristly. Compared to New Zealand, Lionhead meat is reported to be thinner. Rabbit meat has been tested for acceptability as meat source in some parts of the country like Cavite (Adique *et al.*, 2020 [18]; Esamil *et al.*, 2022 [19]). This suggests that in spite that meat-type rabbits are considered new compared to other livestock raised for meat in the Philippines, rabbit meat is being tapped as potential source of meat for consumption wherein cleanliness and sanitation in the farm would contribute to a healthier diet (Nicolas *et al.*, 2022) [20].

Flemish Giant and Chinchilla were the top two meat preferences among rabbit farmers (1.00 weighted mean), followed by Californian (1.75), New Zealand (1.85), and Lionhead (1.85). (2.33 weighted mean). The least popular varieties are the Holland lop (2.50), Fuzzy lop (2.67), and English spot (4.00). Even some rabbit raisers in Partido have not yet tried eating flesh from their own bunnies because the consumption of rabbit meat is still uncommon in the district.

### 3.6. Challenges in Raising Rabbits and Processing of Meat

In administering the project, rabbit breeders and/or raisers ran across a number of obstacles. The majority of these (42.86%) are illnesses, with mange being the most prevalent. In rabbit farming, mange, a parasitic illness, leads to significant losses. Direct contact with diseased animals or tainted food can spread the disease. Pruritus, baldness, severe cachexia, and even death are its hallmarks. Skin scraping and microscopic examination are the basic methods used to diagnose infestations (Abd El-Ghany, 2022) [21]. The majority of raisers deal with this issue by administering Ivermectin in a dosage that follows instructions on the vials. In the study of Sharun *et al.* (2019) [22], since mite eggs are resistant to acaricidal chemicals, several treatments at different periods are necessary in order to effectively treat mange. Diarrhea is another illness that might cause an animal's death. To avoid diarrhea, a raiser experimented feeding air-dried greens to rabbits.

For 21.43% of rabbit breeders, inadequate nutrition was the second most pressing issue. This relates to greens or plants that are used as feeds for the stocks. Some people relied on commercial feeds since they found it tedious and time-consuming to gather plants for feeds. A breeder said that he supplied feed to his rabbits primarily because it had an impact on their performance in terms of live and meat weight at particular stages of rearing.

Lack of finance is the third issue that rabbit breeders and/or raisers face (10.71%) because they are such productive animals. According to Ajani *et al.* (2020) [23], an average rabbit reaches sexual maturity at the age of 3 to 8 months. After having litters that typically contain between 4 and 12 kits, the animals can mate and get pregnant once more as early as the day after the kindling. Another important problem with raising rabbits was inadequate management, a lack of equipment, and mortality (all with a 5.36 percent rate). Some

rabbit breeders lack the technical know-how required to properly care for the animals in terms of housing, diet, and medical attention. While some of them attended trainings pertaining to rabbit farming, others relied on YouTube tutorials to learn the process of raising rabbits. Raisers claimed that they only ask feed stores for rabbit supplies and then, feed the animals. Along with commercial feeds, nearby greens or plants are also used for feeding. The majority of raisers who are only attempting to take part in this project do not properly consider understanding of the feeding requirements as to the age of rabbits. Other problems highlighted by 1.79% of the respondents included inadequate breeding stock, lack of research funding, lack of technical help, extreme weather, and a limited market for rabbits.

Rabbits reproduce very quickly. As the number of stocks grows, rabbit raisers will require more resources, appropriate breeding techniques, and the ability to sell stocks. Some raisers used rabbit meat for family consumption, sold as fresh or processed meat, to capitalize on its business potential. However, as an industry in its infancy, raisers cited the following challenges in processing rabbit meat:

- Raisers lack the technical knowledge required to slaughter and process rabbit meat. The majority of raisers raised and then sold rabbits live, with only few sold them as meat or processed goods.
- Many people were hesitant to slaughter rabbits because they treat them as pets. The owner is emotionally attached. In such cases, they would rather sell rabbits alive than kill them for meat. Some people request that the rabbits be slaughtered for them.
- There is no market for rabbit meat and its processed products because the community is not yet used to or aware of eating rabbit meat. Most people started out raising rabbits as pets. However, as the number of stocks increases, selling and processing its meat becomes necessary. Rabbit associations and other government and non-government organizations have provided livelihood training, but implementation has been limited.
- Rabbit raisers claimed that improper slaughtering or cutting techniques could cause a urine-like odor in rabbits. As a result, proper techniques are required to prevent unpleasant odors on meat.
- There is a need for people to understand that eating rabbit meat is safe. Raisers are challenged to encourage consumers to eat rabbit meat like they do with other commercial meats on the market today. Although studies have been conducted on the nutritional value of rabbit meat, there are still reservations about eating it unless it is proven through a taste test.
- Raisers claim that hybrid rabbits produce low-quality meat. Hence, they prefer mating both meat-type than with pet-type rabbits to produce better meat quality.
- Because rabbit meat is not yet commercialized, raisers have found it difficult to dispose stocks that are ready for market. A market shall be established to assist raisers in making a substantial profit from the project.
- Raisers who want to process rabbit meat lack capital, facility, equipment,



time, and other resources.

#### 4. Conclusions

The facts and opinions of rabbit raisers were used in this study to assess rabbit farming in Partido, Camarines Sur, Philippines. Several rabbit breeds, including the New Zealand, Californian, Chinchilla, Hyla Optima, Palomino, and Flemish Giants for meat, as well as the Lionhead, Fuzzy Lop, Holland Lop, Lion Lop, English spot, and Havana for pets, are successful in the area. To increase and improve the stock, attempts were made to establish pure breeds and cross breeds from the current breeds. Breed classification is not exclusively based on information provided by breeders in order to have correct pedigree information. Many raisers depended on their outward look, internet instructions, and knowledge that was passed from one raiser to another. Moreover, there were accessible sources of rabbits inside and outside of the district and even in other parts of Luzon. Having an organized group of breeders and raisers might contribute reliable information about the local rabbit breeds, identify reliable sources and set standards for breed identification and breeding procedures.

The cost associated with buying and selling rabbits has not been well-determined in the district. Helping the sector to be an established industry would enable rabbit breeders and raisers to create norms on the pricing of live weight rabbits, breeder stocks, and meat.

Rabbit meat has been used for consumption and was described favorably by the raiser-consumers who were the respondents of the study. A growing demand for its flesh would increase the potential for profit for rabbit farming as a result of consumer awareness of and promotion of rabbit meat as a possible substitute for other meat products. Initiatives by interested government organizations to promote livelihoods and provide trainings would also be beneficial. A cost-analysis study would be used to discover specifics in this regard.

As an emerging sector, rabbit farming is confronted with several challenges as a start-up, in its management aspect and processing and by-product production. Studies relative to management, feeding, breeding, product development, and other innovative development in rabbit raising, processing and marketing would determine strategies to address these challenges.

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## Conflicts of Interest

The authors declare no conflicts of interest.

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