

# Management Practices of Backyard Goat Raisers in Negros Occidental, Philippines

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**Abstract-** A survey was conducted to determine the socio-demographic profile of Goat Raisers and the management practices of backyard goat raisers in Negros Occidental. A purposive sampling technique was employed having a representative of 25 respondents in every city and municipality based on the given population of goats in Negros (BAS, 2011). A total of 581 respondents was interviewed on the survey conducted from March - May of 2021. The structured questionnaires was based on Philippine Recommended for Goat Production (PCCARD, 2005). Results revealed that majority of the backyard goat raisers were male (57.20%), married (81.90%), age above 50 years old (33.41%) and the educational level is high school (64.40%). Goat Raisers were mostly engaged in farming (71.25%) with less than 1 hectare land (83.90%) and raised 1-2 heads of goats (64.50%) to augment additional income along with other agricultural crops (crop-livestock integration, 46.86%). Their goats were mostly native (83.47%) and were raised for breeding purposes (59.89%) and commonly tethered on available pasture area (84.78%) and when needs arises sold to viajeros (69.83%). The common problems encountered were bloating, diarrhea, parasite infestation and flu due to sudden change in climatic condition aside from that there were also problems on limited pasture area, poor quality forages and limited resources such as services from the government.

**Index Terms-** backyard goat raising, goat raisers, management practices

## I. INTRODUCTION

Goat is a popular farm animal among rural folks because it requires simple management and low-cost production inputs as compared to swine and poultry. Raising goats either for backyard farming or for commercial scale is cheaper and easier to manage than other livestock animals. By nature, goats are browsers and like to eat many varieties of plants which was good in the uplands where leguminous forage and fodder crops are abundant. Goat can also subsists with crop residues, agro-industrial by-products or any locally available forage sources. Goats are popular with small holders because of their efficient conversion of feed into edible and high-quality meat, milk and hide. Pure exotic or crossbred dairy goats and associated technologies are preferred as a fast means of improving animal production of smallholder farmers and, quickly their economic status and diet quality (Kosgey et al., 2006).

Factors favouring the rearing of goats are that they generally thrive well across agro-ecological zones, which is reflected by the degree of their adaptation (i.e., survival under environmental stresses like diseases, parasites and high temperatures), functional contribution (i.e., meat, milk, fibre and skins) and socio-economic relevance (i.e., security and income generation) (Livestock in Development 1999; Devendra 2001; Peacock 2005). Other attributes of goats are multi-parity and multiple births, shorter generation interval, lower investment, higher digestive efficiency for roughage (Thirunavukkarasu and Prabakaran 1996) and lower feed requirements as compared to cattle (a doe is 0.17 LSU, i.e., raising one mature dairy cow is equivalent to raising five to six mature goats) (de Jong et al 1994; Braker et al 2002).

Goats are not only a source of protein, but they also provide the much needed income. In fact, goats provide livelihood to about 15 million of Filipinos (Faylon, 2009, Cosadio, 2011). With proper grazing management, goats can eliminate noxious weeds, restore and trim native grasses through browsing thus minimizing the work for clearing the field and considered as a good land vegetation management. In a study conducted by a government agency, it was found out that goats are multi-purpose ruminants producing 58.4% milk, 35.6% meat and 4.3% hide, and 1.7% fiber. These small ruminants can provide the answer to the improvement of nutritional requirements of the predominantly rural farm families scattered all over the archipelago (Agriculture Business Week, 2009). As human population increase, urbanization, and increase of caloric intake per capita resulted to the increase in food demand, including the demand for chevon and goat's milk (Colins, 2013).

As of 01 January 2021, the total goat inventory in the country was estimated at 3.60 million heads. Western Visayas recorded the highest goat population in the first quarter of 2021 with 22.41 thousand heads. However this number as -5.7 percent lower than the 3.81 million heads population in the same period of 2020. Of the total goat population, 98.6 percent were raised in backyard farms. The occurrence of the COVID-19 pandemic in addition to the existing animal pandemics in some countries as further exacerbated the impacts of COVID-19 on animal agriculture (Mathias et al., 2021). The study was conducted to determine the socio-demographic profile of backyard goat raisers in terms of gender, age, marital status and source of income and the management practices in goat production existing Negros.

## II. OBJECTIVES AND METHODOLOGY

### 2.1. Objectives of the study

1. To determine the socio-demographic profile of backyard goat raisers in terms of gender, age, marital status and source of income.
2. To determine the management practices in goat production existing Negros.

### 2.2. Materials and Method

The researcher uses quantitative type of research instrument involving survey and using interview schedules to the target respondents. Considering that the research involve goat raisers in the different municipalities and cities Negros Occidental, purposive sampling method was used wherein 25 representatives from each city and municipality were surveyed based on the collected data from the its local DA office. The primary data includes socio-economic information, production and management practices were taken during survey. The structured questioners was based on the Philippine Recommended for Goat Production (PCCARD, 2005), tips on goat raising (LDC, 2012) and some scientific literature related to goat behavior and production (Burns and Devendra, 1970). The questionnaire consisted of variables pertaining to housing, feeding, breeding and health management practices. Secondary data needed were collected from the office of municipal agriculturist particularly on the location of backyard goat raisers within the area to facilitate the interviewers.

A face to face mode of interview with the target respondents were done in coordination with the local leaders and government personnel in-charge of a certain barangays or municipalities. A total of twelve Cities and Municipalities with twenty-five respondents in each were respondents. There were a total of 581 respondents were interviewed during the conduct of the study. All the respondents were backyard goat raisers. Backyard goat raising is the raising of few heads of goats in a small area (25 doe level and below) usually situated in a rural or sub-urban area.

### 2.3. Statistical Analysis

Simple statistical analysis was used in the study such as frequencies, mean, range and standard deviation.

## III. RESULTS AND DISCUSSIONS

### 3.1. Demographics Information

Survey results showed that 42.8% of the total respondents were female and 57.2% were males and mostly were married (81.9%). Among the respondents majority were aged 51 and above with 33.41% and followed by age 41-50 with 29.08%. This scenario coincide with the research of Johr, H. (2012), that the average age of farmers in US, Japan and Europe were 58 years and older. In the paper of Velasco, J. (2019), the average age of rice farmers in the Philippines 43.94. Majority of the interviewed respondents were high-school level/graduate with 64.40% a bigger improvement from what Elauria, M. M. (2015) revealed in her study that the average level of education of Filipino farmer is primary level only.

### 3.2. Economic and Social Indicators

As to the economic and social indicators of the respondents , 71.25% rely their income to farming while the 28.78% of the backyard goat raisers were either employed or entrepreneurs and has small business as their main source of income and they are raising goats for slaughtering during special occasions. Of the total respondents, 83.90% were managing and farming 1 hectare and less while only 16.10% have farms lot bigger than 1 hectare. This relates with the study of Koirala, K. H., et al (2016), that farmers in the Philippines are telling an average of 1.24 hectare. Not all of those farmer or goat raisers owned their lands only 54.80% were owners while the 45.20% were just tenants that leaves temporarily in the place or within the hacienda.

### 3.3. Types and Goat Raised

Of the total respondents, 83.47% raised purely native goats, 26.8% raised an upgraded goats, while 2.10% pure breed Boer, Anglo Nubian and Bo-Ang. Among the respondents 7.5% raises above 5 heads, 28% raised 3-4 heads of goats while 64.50% raise 1-2 heads of goats. All of the respondents commonly raised goats for breeding and when needs arises they will sell their goats or slaughter during occasion. During the survey, overall population of goats run to 1,862 heads of which 23.73% (0-6months), 19.40% (7-12months), 25.97%(13-18months), 15.65%(19-24months) while 15.22% were above 2 years. This data shows that majority of Goat raisers were into breeding 59.89% while 39.89% for fattening and only .02% for milking purposes. Based also on the age of animals since goats were sexually matured at 7-12 months and Doe population is 62.78% while buck is 37.22%. Among the raisers, 59.89% raised goats for breeding purposes while, 39.89% for fattening purposes and only .02% used it for Milking.

### 3.4. Management Practices in Goat Raising

Majority of the raisers integrate goat raising along with other agricultural products (46.86%), Diversified (11.37%), while only 41.76% practice mono-cropping. They are tethering their animals within the available pasture area (84.78%) while the 13.36% range their goats in the farm and only 1.86% practice feedlot system of production where forages are harvested and fed to the animals. Common forages available were cogon, ipil-ipil, carabao grass, kapot-kapot, star grass, plagtiki and a lot more. Goats were also fed with crop-residues (85%) like sugarcane tops, rice straws, camote tops, and corn stover. Goat raisers preferred to sell their animals to “byahero” (69.83%) than selling it as carcass (27.27%) or bringing it to auction market (2.90%) because they are the one who visit the farmers and they will not spent for the transport of the animals. Majority of the respondents (72.80%) does not practice culling of unproductive stocks, and 96.50% of the respondents does not encountered any problem in marketing goats. Generally, majority of the respondents (54.80%) consider goat farming as source of income.

Common problems encountered in the health management of goats were bloating, diarrhea during rainy days, parasite infestation and flu due to sudden change in climate condition while on the management side common problems were limited pasture area, poor quality forages and limited resources of which only 4.8% access services from the government.

## IV. CONCLUSION

1. The profile of backyard goat raisers shows that majority were males, married, age above 50 years old and the educational level is high school.

2. Goat Raisers were mostly engage in farming with less than 1 hectare land and raised 1-2 heads of goats to augment additional income along with other agricultural crops.

3. The common breed raised were female native goats being raised for breeding purposes, mostly tethered on available pasture area that were fed with variety of forage crops and crop residues.

4. The common problems encountered were bloating, diarrhea, parasite infestation and flu due to sudden change in climatic condition aside from that there were also problems on limited pasture area, poor quality forages and limited resources such as services from the government.

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