Livestock
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Contents

1. Comparison of herd status of cattle in year 2018 and 2019

Milking, Dry and Infertile/Aged cows of all provinces were compared with total cattle population in year 2018 and 2019 to figure out the relationship and come up with suitable suggestions to overcome the issues and improve the herd structures by implementing better animal breeding programme and culling procedure to improve the productivity.

Province	Milking cow %	Dry cow %	Infertile/ aged cow %	Dry cow % out of Milch
Western	21.5	17.1	22.4	44.3
Central	28.2	16.4	11.8	36.8
Southern	35.3	9.4	9.6	21.1
Northern	32.0	17.8	8.7	35.8
Eastern	32.3	13.6	6.5	29.7
NWP	23.0	22.9	17.0	49.9
NCP	28.5	20.9	9.0	42.4
Uva	26.6	17.8	11.0	40.1
Sab	32.4	13.1	9.5	28.7

Table 1: Comparative percentages of Milking/Dry /Infertile-Aged cows 2018
Source: Statistical Bulletin LPE/DAPH

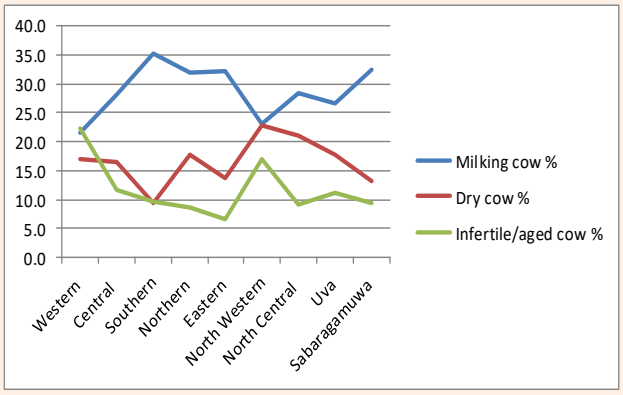

Figure 1: Comparison of Milking/Dry/Infertile-Aged cows-2018

Prov-ince	Milking cow %	Dry cow %	Infertile/ aged cow %	Dry cow % out of Milch
Western	21.0	21.6	14.2	50.8
Central	26.9	18.7	9.0	41.1
South-ern	28.7	15.7	7.8	35.3
North-ern	23.3	28.6	9.9	55.1
Eastern	18.2	30.9	7.2	62.9
NWP	24.5	22.7	12.0	48.0
NCP	24.6	23.3	7.7	48.6
Uva	24.9	18.8	8.0	43.1
Sub	26.5	16.7	8.4	38.7

Table 2: Comparative percentages of Milking/Dry /Infertile-Aged cows 2019

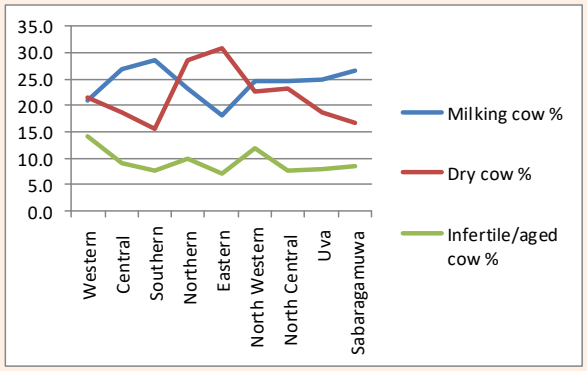

Figure 2: Comparison of Milking/Dry/Infertile-Aged cows-2019

Both years Western Province showed higher percentages of infertile/Aged cows, which are 22.4% and 14.2% respectively. Also it revealed that Western Province had higher dry cow percentage out of total milch cows in both years reviewed (44.3% and 50.8%)
North Western Province had comparatively above figures of dry, infertile/aged and dry cow percentage out of total milch cow in both years.
Eastern Province had very low level of infertile/aged cows in analyzed period (6.5%-2018, 7.2%-2019)

It revealed that the average dry cow percentage for whole country out of total milch was 36.5 and 47.1 in year 2018 and 2019 respectively.
Efficiency of the existing breeding progarmme and culling (non-productive) procedures need to be reviewed to take necessary action to have low percentages of dry cows and infertile/aged cows thereby improve the productivity of the provinces to achieve higher milk production in future.

2.Contingency survey on milk consumption pattern of Sri Lankan consumers

Background

Although fresh milk is considered the most popular beverage across the world, the level of milk consumption in Sri Lanka is considerably low with per capita consumption of fresh and powdered milk at 52.06 literes per year (2019 DAPH Statistical Bulletin). Following the detection of dicyandiamide (DCD) in imported milk powder in 2013, consumers are more cautious when purchasing imported milk products for consumption (Daily News, 2019).

Milk produced by local farmers is collected by main milk processors of the country and milk powder is mainly used for milk powder manufacture. At the same time, if there is a mechanism to sell locally produced milk to local community, it will provide more income for local farmers and consumers will get more nutritious fresh milk.

Understanding the factors affecting consumer preferences is the key to develop new projects and marketing opportunities.

Objective

The objective of the survey was to understand whether fresh milk has a market among Sri Lankan consumers if it is going to be popularized and what product has the contingency market.

Method

A total of 1542 randomly selected families from various income levels and sectors were surveyed using a questionnaire within a period of two months(February 2020 to March 2020). Distribution of respondents is depicted in Figure 3 and Figure 4 shows the income distribution among the respondents.

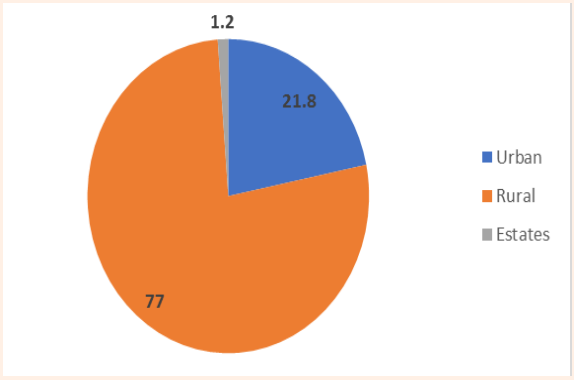

Figure 3 :Respondents of the survey based on living area

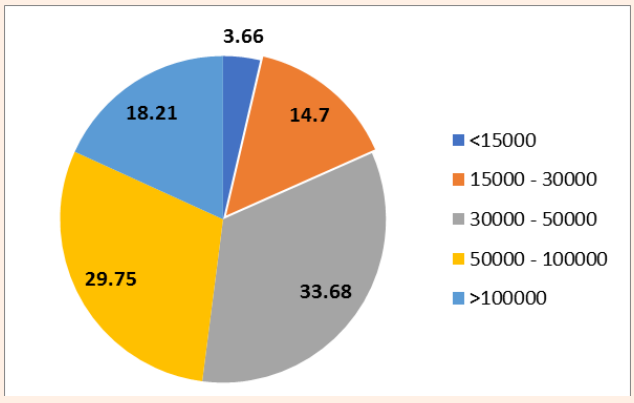

Figure 4 : Income distribution of the sample population

Results

According to Figure 5, majority of the urban consumers used local milk powder while majority of rural and estate consumers used imported milk powder. Fresh milk consumption was higher in rural and estate consumers than urban and consumers. Flavoured milk consumption was higher in urban consumers than other sectors . Among all sectors percentage of people who did not consume milk is higher in rural sector.

Figure 6 shows the reasons for selection of milk product as availability, accessibility, trust on the products available, taste and convenience .Major reasons for not consuming any milk product was unavailability, not enough trust on the products available, health reasons, unpleasant smell or taste and inconvenience in preparation (Figure 7).The hypotheses proposed by the survey was to deliver quality certified milk to consumer doorsteps every day and majority had preferred that. Majority preferred 250 ml volume bottles.

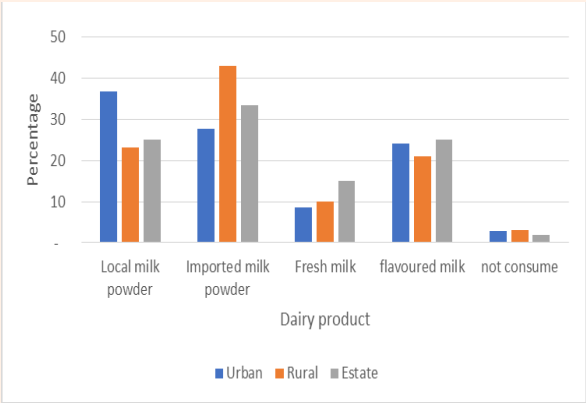

Figure 5 :Sector wise milk consumption pattern

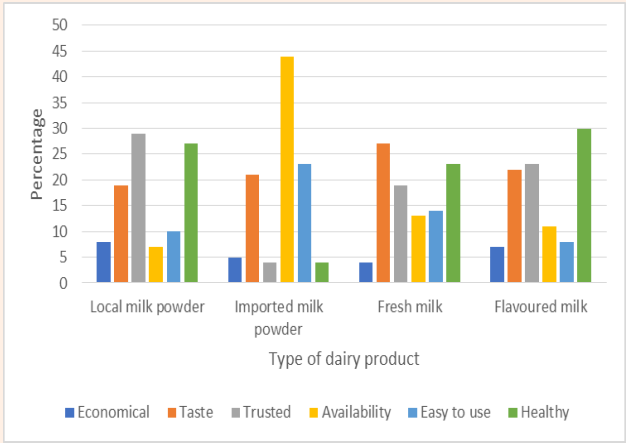

Figure 6: Reasons for selecting a dairy product

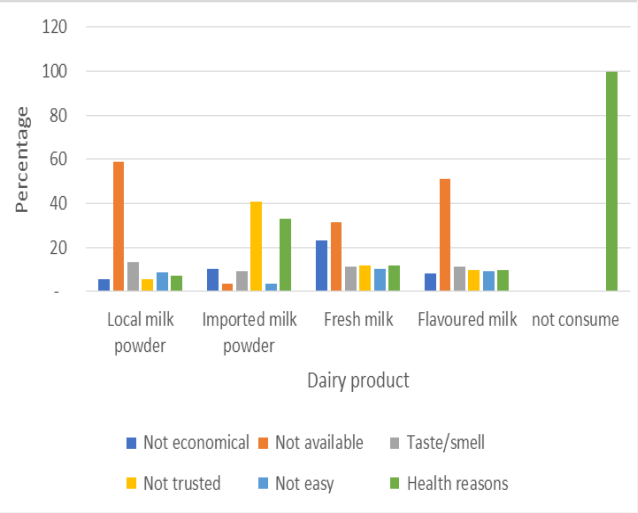

Figure 7 : Reasons for not consuming dairy products

Discussion

According to Figure 6, local milk powder has the highest trust among the consumers. But sadly it is also the least available dairy product type out of all types used in the survey (Figure 7). Marketing promotions used by dairy companies in Sri Lanka as well as public health education campaigns conducted by various government departments can be a reason for well-established trust for local milk powder. Though consumers of every sector have trust over local milk powder (Figure 5) they are kept away from consumption by poor accessibility. Another reason for willingness to consume local milk powder is the taste (Figure 5).

Though consumers are willing to consume fresh milk, the main reason that they are not doing so because they have no access for buying (Figure 7).Next reason for not consuming fresh milk is taste or the smell (Figure 7).Therefore, it is important to monitor factors that influence the taste of milk.
All the income level consumers were involved in the survey but economic reasons were not significant in choosing milk products (Figure 7).Milk consumption has become a daily food habit of Sri Lankan people by now.
Many have no trust on imported milk powder but consumes for the reason of high availability in every area (Figure 6).
More informative analysis could be done after a proper statistical analysis.

Conclusion

If quality certified milk is distributed at Rs 40/= in 250ml, Rs 60/= in 500ml and Rs 110/= in 1 litre packs to consumer doorsteps, consumers will switch to locally produced milk from imported milk powder. Safety, and taste has to be continuously monitored by an authority for sustainable demand of fresh milk

3. Backyard poultry farming in tea plantations in central province of Sri Lanka

Introduction

The demography and socio-economic background of the residents in tea plantations in Sri Lanka is unique and markedly different from that of the rest of the population. The majority of them are descendants of Indian Tamils that came as laborers to work in tea plantations at the British govern era. Majority of them reside in line houses with limited space. Most of them are poor in literacy and owe relatively low income. Given this background backyard poultry farming offer them an important avenue for food security and supplementary income generation due to ease of production and low input requirement. The production system varies widely therefore the present study is conducted to describe the backyard poultry farming in tea plantations of the central province of Sri Lanka.

Methodology

The study conducted in September – November 2018. Presence of tea plantation was considered as the inclusion criteria on selecting a divisional secretariat (DS). One tea plantation was selected from each of the DS. Depending on the family number of workers, maximum of 30 or 10% of the family number were selected for the study. Accordingly 680 farmers in 26 tea plantations across 13 DS were interviewed using structured pre-tested questionnaire Statistical analysis was done using Excel 2013.

Result and Discussion

Demographic analysis of farmers

Majority (80%) of the poultry farmers in tea planation fall within the age of 18-60 which was the working age in Sri Lanka. There was no any difference in gender distribution among the farmers. Majority (97%) of farmers were Hindus and this could be due to the fact that general majority of estate workers are Tamils. Seventy three (73%) of the farmers have received education below grade 10. On average 1.4 person per family was engaged in estate work and 59% of their income was received through their occupation in the estates. Average annual income per family was around Rs. 300,000.00 with a round Rs. 25,000.00 monthly income.
Ninety six (96%) percent of the farmers consume eggs produced at their own farms while 43% of farmers are selling eggs to supplement family income. 39% of the farmers rear poultry for both purposes. It is therefore, evident that the farmers rear poultry mainly to supplement family nutrition.

Poultry farming in tea plantations

69% of farmers rear poultry for eggs while 29% of them rear poultry for meat and eggs both. 50% farmers use manure for vegetable farming while the others do not have any particular use especially because they do not have land for cultivation and the amount of manure collection is very low when they rare few birds.
Average flock size was 18 including chicks. However chicks comprises 32% of the flock while 19% were hens. 96% of them were village chicken. Ease of management, low cost operation and high nutritional value were the main reasons for selecting the village birds.

Figure 8 : Types of poultry houses in tea estates

The birds were kept mainly (70%) by women of the family. They spend 1-2 hours per day for poultry rearing which was usually split between before and immediately after tea cropping and at the evening when they gather birds for night keeping in cages. 90% of them have a small cage adjacent to the house for night keeping of birds. Other keep the birds in a separate location of the same house they live. 81% the birds were reared with additional feed supplements mostly were the commercial feed. Farmers do not have any idea on common poultry diseases. Also they do not have encountered common diseases. The mostly occurring clinical conditions were lethargy (16%) loose motion (8%) and which was treated with traditional concoction of medicines.

The commonest threat for poultry rearing at tea plantations were the losses of birds due to predation (54%) out of that 78% of the losses has occurred from mongooses.

Age at 1st lay differ widely ranging from 5 to 8 months with majority (52%) falling at 6 month of age. Once they start laying usually one hen lay 15 eggs per month which was fairly good. But the farmers do not have any idea on the length of a clutch or how long the egg laying period of a hen. Additional chicks for the farm comes through natural brooding in 90% of the cases. Inbreeding might have prevented as the birds are mixed with the birds of the adjacent farms during the day time.

When the constraints the farmers face during poultry farming was analyzed, the most common constraints were identified as predation (31%), inadequacy of space (24%) and inability to supply feed (9%). Even with these difficulties 94% of the farmers are expecting to continue and expand their farm as the poultry farming supplies them the essential family nutrition which otherwise they would not be able to provide given their low income. Housing was considered as the major requirement in expansion as the poor housing make the birds vulnerable to predation.

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