



Livestock Information Bulletin

Department of Animal Production and Health



Volume 1

2019

Issue 1

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Compared to total cattle and buffalo cows which were in milking, none milking and other animals (aged and infertile) the average milking and non-milking animal percentage was 43.6 and 35.3 respectively during the latter period. The other animal (aged and infertile) percentage was recorded as 21.1% out of the total. (Table 2/ Figure 1/2)

1. Comparative analyzes of total milk production in relation to herd composition

Total milk production of Cattle and Buffalo of the country was compared with the herd composition for last five years starting from 2013 and it is revealed that the milking population of cattle and buffalo is 23.8% in relation to total cattle and buffalo population of the country. The non-milking animal (Dry) percentage was 15.7 % for the same period.

Out of the total cow and buffalo population, only 39.5% (23.8% + 15.7%) of animals are able to produce milk (milking and non-milking stage) and 60.5% of animals are in other category namely **aged, infertile, heifers, calves and male animals**. (Table 1)

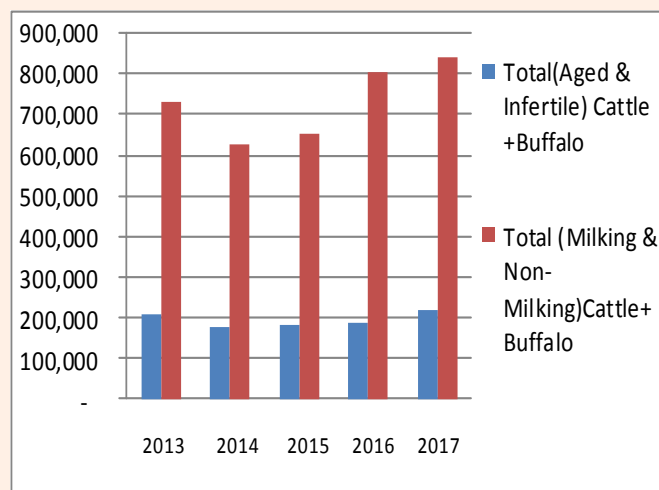


Figure:1 :Total Milking and

Non-Milking verses Aged/Infertile Cattle & Buffalo

Source: Statistical Bulletin LPE/DAPH

Type		2013	2014	2015	2016	2017
Cattle Population		1,265,039	1,118,089	1,227,379	1,366,195	1,399,815
Buffalo Population		473,911	375,562	381,431	426,257	444,912
Milk Production (Liters)		381,363,636	418,889,817	403,230,360	454,628,141	482,688,640
Milking animals	Cattle	249,439	223,400	249,953	367,124	398,608
	Buffalo	115,491	92,050	95,591	118,105	124,369
Non milking animals	Cattle	279,486	237,579	244,048	251,802	244,075
	Buffalo	84,700	71,439	64,932	69,234	72,913

Table 1: Cattle buffalo population and milk production (2013-2017)

Source: Statistical Bulletin LPE/DAPH

Type	2013	2014	2015	2016	2017
Cattle(Aged + Infertile)	165,525	141,294	145,329	138,948	165,160
Buffalo (Aged + Infertile)	43,960	36,148	35,795	48,151	51,820
Total (Aged & Infertile) Cattle +Buffalo	209,485	177,442	181,124	187,099	216,980
Total (Milking & Non-Milking) Cattle+ Buffalo	729,116	624,468	654,524	806,265	839,965

Table 2: Total Aged/Infertile verses Milking and Non-Milking Cattle and Buffalo population

It is revealed that out of the available milch animals (able to produce milk) 56.4% (35.3%+ 21.1%)of animals are not in milking stage and only 43.6% animals' produce milk. If we could manage dry and infertile cows/buffaloes correctly, we will able to go for higher milk production with the existing herd of the country. It is also important to apply a good culling procedure to aged and infertile animals to assure higher per head production (Figure 3)

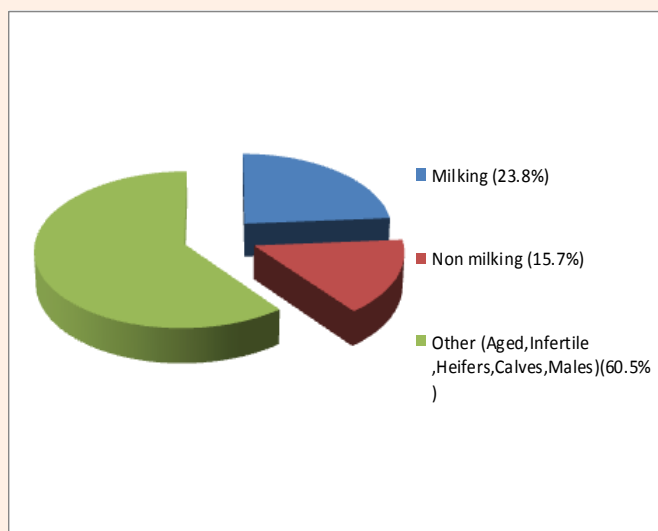


Figure 2: Comparison of Cattle/ Buffalo population relation to production stage

When compared the average annual milk production of the country with milking population of Cattle & Buffalo, It is reveled that the average production per cow/day was recorded as 2.96 Liters during the prescribed period

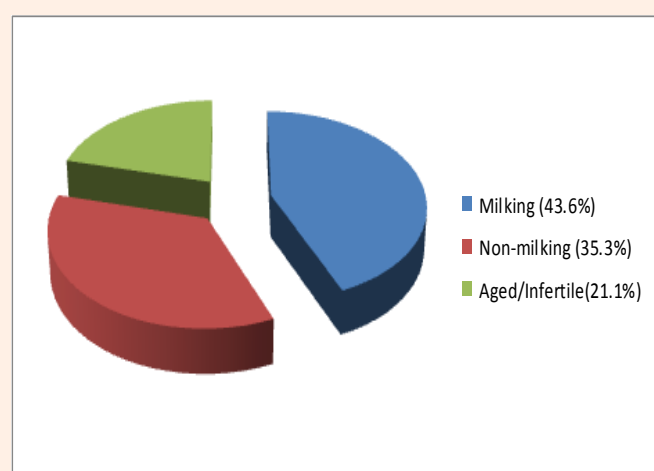


Figure 3 : Comparison of production stages of cows in the Cattle /Buffalo population

2. Livestock and Environment

Water as a resources

water is finite resource which can be recycled and purified. The quantity of water is fixed. Seventy five percent of the planet covered by water and it is equal to of 1400 million km³. Out of total water 97.3% is salt water. The available balance is only 2.7% out of which 1.76% permanently frost. Actual availability for use is 0.94%, but 23% of it is in underground. Finally less than 4% of water available for use which is equal to 136,000km³ this is in rivers, lakes and reservoirs.

Water Requirement

Water footprints for meat estimated in chicken as 4,325 l/kg, pork at 5,988 l/kg, sheep/goat meat at 8,763 l/kg, beef 15,415 l/kg and milk 1020 l/kg while vegetables had a footprint of about 322 l/kg and fruits 962 l/kg and nuts came in at 9,063 l/kg. To put these figures into context: the planet faces growing water constraints as our freshwater reservoirs and aquifers dry up. On some estimates farming accounts for about 70% of water used in the world today, a study found that it uses up to 92% of our freshwater, with nearly one-third of that related to animal products.

Water pollution

The FAO believes that the livestock sector, which is growing and intensifying faster than crop production, has “serious implications” for water quality. Farms contribute to water pollution in a range of ways. It is worth remembering that one-third of the world’s grain is now fed to animal

Water pollution of livestock could be occurred due to the nutrient (nitrogen and phosphorus of animal excreta); organic matter (oxygen demanding substances such as plant matter and livestock excreta); pathogens (*E coli* etc); metals (selenium etc) and emerging pollutants (drug residues, hormones and feed additives).

Eutrophication is caused by excesses of nutrients and organic matter (animal faeces, leftover feed and crop residues) which cause algae and plants to grow excessively and use up all the oxygen in the body of water at the expense of other species. And although scientists do not yet have full data on the connection between antibiotic use in animals and rising levels of antibiotic resistance in the human population, water pollution by antibiotics (which continue to have an active life even after going through the animal and into the water) is definitely in the frame.

Land use and deforestation

Livestock is the world’s largest user of land resources (FAO), with grazing land and cropland dedicated to the production of feed representing almost 80% of all agricultural land. Feed crops are grown in one-third of total cropland, while the total land area occupied by pasture is equivalent to 26% of the ice-free terrestrial surface”.

Climate change

It’s hard to work out exactly what quantity of greenhouse gases (GHG) is emitted by the meat industry from farm to fork; carbon emissions are not officially counted along entire chains in that way, and so a number of complicated studies and calculations have attempted to fill the gap.

According to the United Nations Intergovernmental Panel on Climate Change, agriculture, forestry and other land use accounts for 24% of greenhouse gases. Attempts to pick out the role of animal farming within that have come up with a huge range of numbers. Different models of farming have different levels of emissions: this has generated an energetic discussion around extensive versus intensive farming, and regenerative farming a model that aims to combine technologies and techniques to regenerate soils and biodiversity levels while also sequestering carbon.

As Veterinarians and the extension staff at field levels, must be aware the importance of water in livestock farming and should adopt suitable methods to conserve water since the volume required for livestock products is comparatively larger, than the other food products. It is also important to protect the environment by adopting and encouraging the farming practices which are more eco-friendly to achieve sustainability in livestock sector in Sri Lanka.

Source: Water Footprint Network

Type of Product	Water Requirement l/Kg
Chicken	4,325
Pork	5,988
Mutton	8,763
Beef	15,415
Milk	1,020
Vegetables	322
Fruits	962
Nuts	9,063

Table 3: Water Requirement of different food products

Livestock Farm Registration - On Line

Livestock Farm Registration (Cattle, Buffalo, and Poultry, Goat, Sheep, Swine and Mixed farm) have been started back in 2008 and the data base of relevant farms are being maintained by Livestock Planning and Economics Division of the department. This data base has been updated several times depending on the requirements since 2008.

As you aware, reliable data on registered livestock farms are very much important on project and programme planning. Therefore the existing data base has been converted to on line version recently, and it is now available to browse on your desktop.

By one click on web named www.daph.vri.lk you will access to the system and thereby to particular range you belong to. The given user name and password will help you to login to the system. As indicated in the web address the data base has been stored in VRI servers of the Department.

This data base is very much user-friendly and it is useful for information sharing between Central department and Provincial departments. It is also helpful to Veterinary surgeons to carry out their duties at their Veterinary office in many ways.

However, the database need to be updated Veterinary range wise first, and to make it easier simply follow mentioned stages. At the end you will be able to get completed data base.

Stage 1:

Close non existing farms of the range

Stage 2:

Detail update of available farms

Stage 3:

Enter new farms monthly which are being registered

Since the accuracy and the lifetime of the data bases obviously depend on updating, it is one of the responsibilities of the Veterinary surgeon to update it timely. The reports which are to be sent to the Provincial Director Office as well as Central department will also facilitated by this system, and more features will be added to the system later on.

Any matters related to the online Farm registration will be immediately attended by Farm Registration Team of Livestock Planning and Economics Division, if you call following numbers.

LPE Division - 0812388850

Dr. Sarath Priyantha - 0769689123

Ms. Pushpa - 0718038955

Mr. Manjula - 0718506005

Please send your inquires on farm registration to following E- mail

farmreg@daph.gov.lk

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LIMS-VRI



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