

# Annual Report

















**Department of Animal Production and Health** 

# ANNUAL REPORT 2017

Department of Animal Production and Health Peradeniya Sri Lanka

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#### **PREFACE**

Demand for foods of animal origin is still in increasing trend as previous year in Sri Lanka even the global context is concerned. Being the main technical service providing organization in relation with livestock development, of the Ministry of Fisheries & Aquatic Resources Development and Rural Economy, the Department of Animal Production and Health (DAPH) is responsible for ensuring availability of quality foods of animal origin according to the demand of the country. Therefore DAPH is carrying out provision of technical guidance and statutory functions related to livestock sector in the country. Accordingly, upgrading and maintaining a healthy animal population, providing required inputs, quality assurance of animal products, animal feed and veterinary pharmaceuticals are the main functions implemented by different divisions of DAPH with collaboration of provincial DAPHs and other livestock stakeholders. As such department facilitates for increased production and productivity improvements in the sector and thereby to achieve sector goals identified in the Livestock Master Plan particularly in the dairy sub sector while supporting poultry, goat and swine sub sectors.

As with the high investment dairy operations like mega dairy farms established in the country with imported cows as public private partnership, technical innovations are much needed to achieve expected growth standards in the dairy sector. The poultry sector in the country is in growing trend as last year and is self-sufficient in chicken meat and eggs at current purchasing power levels. However, chicken meat and eggs are yet to be available at competitive prices for further expansion of this industry and to compete in the global market. The growth in Swine and Goat sectors are more or less static and needs more attention.

This 2017 Annual Report of DAPH highlights status of livestock sub-sectors and progress of all programs/projects implemented and activities carried out by the department during the year 2017. Most of livestock sector support services/programs are jointly implemented by the National DAPH and Provincial Departments of Animal Production and Health (PDAPH). Therefore province-wise performance and the progress have been presented in this report wherever necessary.

I am thankful to all Directors and their staff in the department for extending their fullest cooperation for successful accomplishment of programs planned for the year 2017. Special word of appreciation goes to Dr. K.D. Ariyapala – Director and the staff of Livestock Planning and Economics Division for taking efforts in compiling and publishing this document within the stipulated time.

**Dr. Nihal Wedasinghe**Director General
31 March 2018

# DEPARTMENT OF ANIMAL PRODUCTION AND HEALTH

#### **VISION**

Be the premier organization leading the livestock sector towards socio - economic development of Sri Lanka

#### Mission

Provide technical guidance and support to achieve sustainable development in the livestock sector by maintaining a healthy animal population and enhanced productivity ensuring food safety and contributing to food security.

#### 1. INTRODUCTION

The Department of Animal Production and Health (DAPH) was established under the Ministry of Rural Industrial Development in September 1978. At present DAPH functions under the Ministry of Rural Economy.

Most of DAPH's field level functions have been devolved to nine Provincial Departments of Animal Production and Health (PDAPH) headed by Provincial Directors.

The DAPH provides technical leadership, expertise and back-up services to Provincial Departments of Animal Production and Health (PDAPH) and other livestock industry stakeholders. department The also implements range a of pertaining to the livestock sector under the provisions of Animals Act, Animal Diseases Act and Animal Feeds Act. A total of 325 Divisional Veterinary Offices scattered throughout the country handle delivery services, managed by veterinarians, which are functioning under PDAPH and are the main functional units of the DAPH. In line with the policy decision taken by the expand veterinary government to network to strengthen service delivery system at grass root level, divisional veterinary offices are being established at every Divisional Secretariat level at present. Similarly a policy initiative was taken in 2006 to expand veterinary investigation network by establishing a Veterinary Investigation Centre (VIC) at each District level. 25 VIC's have been

established at District level by end of 2017.

#### Objectives of the DAPH

- 1. To assure an efficient preventive and curative animal health service.
- 2. To promote optimal utilization of animal genetic resources.
- 3. To enhance utilization of quality animal feeds and feed resources.
- 4. To promote growth and development of the animal feed industry.
- 5. To conduct research and development towards a sustainable livestock industry.
- 6. To develop technically competent human resources.
- 7. To ensure efficient and effective information dissemination and technology transfer.
- 8. To formulate, monitor and evaluate livestock development projects and programs.
- 9. To assure safety of products of animal origin.
- 10. To promote and facilitate good animal husbandry practices.
- 11. To ensure welfare and wellbeing of animals.
- 12. To ensure efficient management of departmental activities.

Introduction 1 The DAPH has eight (08) functional divisions; six (06) technical divisions and two (02) support service divisions. Sub-units of DAPH are mostly located peripherally, functioning under different divisions of the DAPH.

#### **Animal Health Division**

Surveillance, Main Responsibility: prevention and control of scheduled and emerging animal diseases of economic importance by implementing suitable strategies and eradication control programs.

#### Sub Units:

Veterinary Investigation Centres (VIC's) located at:

Anuradhapura, Badulla, Ampara, Batticaloa, Chilaw, Matale, Galle, Jaffna, Hambantota, Homagama, Kalutara, Kegalle, Kundasale, Matara, Nuwara-Pannala, Polonnaruwa, Eliya, Ratnapura, Trincomalee, Vavuniya, Welisara, Wariyapola Monaragala, Mankulam and Kilinochchi.

#### **Animal Breeding Division**

*Main Responsibility:* Development of livestock genetic and feed resources.

#### SubUnits:

Central Artificial Insemination Station -Kundasale.

Artificial Insemination Centre Polonnaruwa.

Goat Breeding Stations -Imbulandanda and Thelahera.

#### Development Human Resource Division

Main Responsibility: Development of human resources, skills development and dissemination of information required for further growth of the livestock sector.

#### Sub Units:

Institute of Continuing Education for Animal Production and Health -Gannoruwa.

Sri Lanka School of Animal Husbandry-Kundasale.

Sri Lanka School of Animal Husbandry -Seeppukulama.

Livestock Knowledge Centre, Getambe. Livestock Technology Park, Gannoruwa.

#### Veterinary Research Institute

Main Responsibility: Plan and execute research programs and to provide technical products and specialized services to fulfill the needs of livestock industry.

#### Sub units:

Central Poultry Research Station -Karandagolla.

Animal Virus Laboratory - Polgolla.

#### Livestock Planning and Economics Division

Main Responsibility: Formulation of livestock development programs/ projects and monitoring and evaluation of livestock development programs/ projects implemented by national/ DAPH provincial and appropriate agencies.

Introduction 2

#### Veterinary Regulatory **Affairs** Division

Main Responsibility: Implementation of statutes pertaining to the livestock sector.

Sub units:

Animal Quarantine Stations (Colombo, Katunayake, Hambantota and Mattala)

#### Administration Division

Main Responsibility: Proper management of resources and ensuring functioning of the Department.

#### Finance Division

Main Responsibility: **Efficient** management of finances allocated to the Department.

#### Members of the Directorate

Members of the Directorate in 2017 were as follows:

Dr. A. Sivasothy, Director General, (up to January), Dr. R.M. Ariyadasa, Director General (acting), (from February 2017 to December), Dr. (Mrs.) R. Hettiarachchi, Additional Director General - Veterinary Research (c.u.) (from 2016 October), A.R. Rajarathne, Additional Director General Administration, Mr. R.M.L. Rathnavake, Resource Director Human Development (c.u.) (up to August 2017), Dr. (Mrs.) T.C. Rathnayake, Director -Human Resource Development (c.u.) August 2017), Dr. W.W. Abeygunawardene, Director - Animal

Breeding (c.u.) (from March 2016), Dr. M.D.N. Jayaweera, Director - Animal Health (c.u.) (from 2016 July), Dr. (Mrs.) H.M.T.K. Ratnayake, Director Veterinary Regulatory Affairs (c.u.) (from 2016 August), Mrs. V.P.K. Pilapitiya, Director - Administration, Mr. K. Sarath, Chief Accountant, Dr. K.D. Ariyapala, Director - Livestock Planning and Economics (c.u.) and Dr. S.S.P. Silva, Director - Veterinary Research (c.u.).

The Organization structure of the DAPH is shown in *Annex I*.

Introduction 3

#### 2. LIVESTOCK SECTOR REVIEW

#### 2.1. **Dairy Sector**

The Dairy Sector has been identified the priority sector development among other livestock sub sectors in the country. Cattle and Buffalo population in the country in 2017 has been recorded as 1.39 million and 0.44 million respectively (Source: LPE Division, DAPH). Domestic milk production recorded as 482.70 million liters (Source: LPE Division, accounts 6.35% increment compared to the previous year.

Number of milk chilling centers in the year totaled up to 204. The amount of milk collected by 14 main milk processors in the formal milk market in the year amounted to 283.12 million liters Around 30.6%, 18.6% and 16.8% of milk collected in the country was from the Central Province North-Western North-Central province and the province respectively.

Average farm-gate price per liter of milk in 2017 was around Rs.66.48 Average cost of production of one liter of milk in up country and mid country in 2017 was recorded as Rs. 34.69 under intensive management systems. (Source: LPE Division, DAPH)

Form of powdered milk out of milk and Milk products imported was 85.52% which had 1.5 % of fat.

Import of dairy products amounted to 98,863.89 MT in 2017, a decrease of 0.73% over the corresponding figure of 99,593.43 MT in 2016 (Source: Department of Customs). Out of total dairy products imported into the country in 2017, full cream milk powder amounted 84,548.90 MT which was a decrease of 0.034% when compared with 84,578.45 MT in the year 2016. Similarly, import of non-fat milk powder at 8,578.07 MT in 2017 showed a decrease of 9.09% from the 2016 import volume of 9,436.68 MT. Total import bill on dairy products Rs.48.15 2017. reached billion in

The average price including Cost, Insurance and Freight (CIF) prices (LKR) of imported dairy products in 2016 and 2017 were as follows:

	2016	2017
	(Rs./MT)	(Rs./MT)
Whole milk powder	364,710.36	494,974.44
Skim milk powder	295,760.83	353,438.48

(Source: Department of Customs)

International market prices of whole powder showed milk decrease towards the end of the vear.

Comparison of prices in 2016 and 2017 is as follows:

#### International market prices of dairy products (2016 - 2017)

Product	Price USD/MT				
	2016 (Avg.)		2017 (Avg.)		
	Jan. Dec.		Jan.	Dec.	
Whole milk powder	2,187.50	3,268.75	3,288	3,031.25	
Skim milk powder	1,768.75	2,218.75	2,238	1,700	

(Source: http://future.aae.wisc.edu)

Total availability of milk and milk products in the country had been 1206.7 million liters of Liquid Milk Equivalent -LME (domestic production and imports) and the per-capita availability was recorded as 154.20 ml/day in year 2017.

#### 2.2. Poultry Sector

#### 2.2.1. Broiler Industry

Procurement of broiler grandparents and parents recorded as 58,055 and 1,470,390 respectively during the year 2017. Out of the total procurement of broiler parents, 1,087,969 DOC were locally purchased. 150.77 million broiler chicks were produced in the country during the year, recording a 9% increment compared to 138.32 million broiler chick production in 2016.

35 broiler breeder farms were in operation during the year. The broiler breeder strains imported by them were Cobb (52%), Hubbard (25%), Indian River (13%) and Ross (10%). Majority of DOC (74%) was purchased from local Grand Parent (GP) farms which is three (03) in number and the rest was

imported from Poland (37.24%) and USA (62.76%).

Average price of a day-old broiler chick had been Rs. 71.35 in 2017 ranging from Rs. 65.00 in January to February and Rs. 85.00 in December. Average farm-gate price of live broiler recorded as Rs. 228.96/kg with the lowest price of Rs. 170.00/kg (October) to the maximum price of Rs. 270.00/kg (December).

#### **2.2.2.** Layer Industry

Layer industry recorded a positive growth during the year. However, in the latter part of 2017 this growth led to market instability lowering the market price of egg.

Imports of layer parents recorded as 114,975 in the year 2017. Pullet chick production was recorded as 9.37 million which was 8.76 million in year 2016. Average pullet chick price was recorded as Rs. 98.54 and was ranging from Rs. 130.00 in January to Rs. 45.00 in November, 2017. Eleven (11) layer breeder farms were in operation during the year and Bovans-White (28%), Lohmann LSL (19%), Hyline Brown (14%) Hyline White (10%) and Lohmann Brown (10%) were the main layer breeder strains imported by these farms. The majority (72%) of those were white layers. Main importing countries were Canada (59.81%), USA (17.87%), Brazil (16.19%) and Germany (6.13%).

Farm gate price of table eggs (brown) ranged from Rs. 9.38 (October) to Rs. 12.25 (February). Average farm-gate price for the whole year recorded as Rs. 11.31 which is 15.97% decrease from the previous year. Average retail price for brown and white eggs recorded as Rs. 12.75 and Rs. 11.96 respectively. Total egg production of the country recorded as 2739.12 million eggs which included 5% of village chicken eggs.

#### 2.2.3. **Poultry Feed Industry**

Total animal feed production in the country estimated as 1,910,516.35 MT which is 77% increment compared to previous year (1,078,039.63 MT) (Source: DAPH). Fifty nine per cent (59%) of the animal feed produced in the country is used for poultry industry (1,128,312.5 MT) which produced both by the commercial feed producers and farmers themselves. Fifty three (53) registered poultry feed manufacturers were in operation during the vear commercial poultry feed production in the country was estimated as 678,187.50 MT which is 9% increment compared to 620,310.65 MT in year 2016. Total selfmixed poultry feed production has also been increased by 9% compared to previous year amounting to 450,125 MT.

#### 2.2.4. **Poultry Processing Sector**

Nine poultry processing establishments were in operation during the year 2017. Estimated chicken meat production in 2017 at 196.60 '000MT recorded an increase of 8% over the 2016 volume of 182.69. Total value added products manufactured meat processing establishments amounted to 14970.07 MT in the year, an increase of 36.84% over the 2016 volume 10,939.49 MT. Out of this production in 2017, a major portion (91.56%) consisted of chicken meat based value added products

#### 2.2.5. **Exports**

Export of poultry meat and meat products recorded as 1,995.82 MT in the year; an increase of 522.78 MT from the previous year's volume of 1,473.03 MT. (Source: Department of Customs).

Bulk of the chicken meat and chicken meat products were exported Maldives, India, and Seashells. Export of table eggs at 4.6 million increased further by 12.19% compared corresponding figure of 4.1 million in 2016. A total of 0.23 million day-old chicks were exported during year 2017 recording 8% decrement compared to 0.25 million in year 2016. A total of 24,840 hatching eggs were exported during the year 2017 compared 68,940 in year 2016 (Source: AQ Station, Colombo).

#### 2.2.6. Imports

Import of poultry meat (271.52 MT) recorded an increase of 7.5% compared to the year 2016 (252.59 MT) (Source: Department of Customs).

82.04 MT liquid eggs and 5.50 MT egg powder were imported to the country during 2017 (Source: AQ Station, Colombo). (Key data pertaining to the Industry in 2017 are given in Annex II)

#### 2.3. Swine Sector

Swine sector is one of the main livestock sub- sectors which placed next to the poultry and dairy sectors in Sri Lanka. Around five thousand farmers are engaged in swine farming as their main income generating activity.

Total pig population in Sri Lanka has been recorded as 0.15 million in 2017 (Source: LPE Division, DAPH)

Estimated pork production in the country had been 7,890 MT during the year 2017 (Source: LPE Division, DAPH). A total of 0.589 MT .of pork have been imported into the country in 2017 and 3.29 MT of pork and pork products have been exported (Source: Department of Customs).

Monthly average retail price of pork was recorded as Rs.559.16 per kg in the year ranging from Rs.516.67/kg in October, November, December to Rs. 584.17 in April (Source: DCS).



Figure 2.1: Monthly Average Retail Price of Pork- 2017

#### 2.4. Goat sector

Goat farming is concentrated mainly in dry and intermediate zones of the country where about 75% of goat population distributed. is Goat population in 2017 recorded as 512,978 (Source: LPE Division, DAPH) and number goat farms in the country recorded as 57,530 (Source: LPE Division, DAPH).

Average cost of production of mutton was Rs. 295.20 in year 2017. Average retail price of mutton in the country reported as Rs. 1737.11/Kg in the year 2017 ranging from Rs.1672.06/Kg in January to 1796.24Kg in December.

A total of 949.299 MT of mutton had been imported into the country during the year 2017. While 0.058MT had been (Source: Department exported Customs). Change of average retail prices of mutton is shown below. (*Figure*2.2).



Source: DCS Figure 2.2: Retail Price Changes of Mutton 2017

#### 3. ANIMAL HEALTH DIVISION

#### 3.1. Introduction

Sri Lanka is progressing in the socio economic perspectives and living standard of people in growing trend due to which their food habits are also changing. Since that the demand for livestock products are on the increase and the concern on quality and safety also follows the same trend. Therefore the quality of livestock operations and livestock products should be guaranteed. The communicable diseases of livestock, zoonotic diseases transmitted human through livestock and hygiene of livestock and livestock products should be kept under investigation.

International organizations such as World Health Organization (WHO), Organization for Animal World Health (OIE), Food and Agriculture Organization (FAO), the key agencies those who monitor and coordinate programmes on food safety, food health hygiene, public related activities in global perspective have established minimum standards required to prevent global disasters on above disciplines.

Prevention of entry and spread of communicable animal diseases and guarantee the safety of food of animal origin is one important item in their agenda. Sri Lanka has to maintain such standards according to the international treaties they have entered. Island wide well webbed veterinary investigation and

diagnostic system network is an essential prerequisite to implement these policies

The Division of Animal Health is responsible for ensuring required animal health status for development of the livestock industry in the country. Animal Health Division has the national unit located at Head Quarters of Department of Animal Production and Health with its component namely Vaccine Bank and Veterinary Store located at Getambe. Its peripheral units namely Veterinary Investigation Centres are established at district level.

#### **Functions of the Division**

The following major tasks were earmarked to be carried out during the year 2017.

- Formulation and implementation of Special Programs against identified exotic, emerging and re-emerging animal disease
- Strengthening GIS based disease surveillance and animal disease database.
- Design, support, monitor and evaluate mass-scale preventive vaccination programme.
- Provision of laboratory back-up service for disease diagnosis.
- Establishment and maintenance of district based Veterinary Investigation network.
- Compilation and dissemination of animal health related

- information locally and internationally.
- Functioning as the animal disease notification focal point to World Organization for Animal Health (OIE).
- Initiation of Veterinary Public Health programs with special emphasis on zoonotic disease control and safety of food of animal origin.
- Maintenance of National level Vaccine Bank and Veterinary-Store.

#### Main Activities of the Division

The major activities performed during the year under review could be listed as follows:

- National level planning and involvement in animal disease control.
- Monitoring and evaluation of animal diseases status in the country and dissemination of animal health related information locally and internationally.
- Maintenance of Vaccine Bank, island wide distribution of vaccines and monitoring of livestock vaccination programme.
- Strengthening of Veterinary Investigation network for improved disease surveillance and laboratory back-up for disease diagnosis.
- Implementation of special programs for livestock health management and improvement.
- Planning and implementation of avian influenza surveillance programme and emergency

- preparedness against emerging, re-emerging and exotic diseases.
- Formulation and implementation Veterinary Public Health policy in order to effectively control identified zoonotic diseases under 'One health' concept.Under VPH, **Rabies** control activities and prevention of Antimicrobial resistance activities have already launched

#### 3.2. Animal Disease Situation

#### 3.2.1. Bovine Diseases

#### a. Haemorrhagic Septicaemia

Hemorrhagic Septicaemia (HS) is an acute fatal septicaemic disease of cattle and buffaloes caused Pasteurella multocida 6: B or 6: E. In Sri Lanka, since its first occurrence in 1955 it was recognized as the most important killer disease among livestock population. As such the vaccine was produced locally and preventive annual mass-scale vaccination implemented was effectively.



Figure 3.1: Origin of outbreak: It appears that the clinical cases of HS at Vakarai Veterinary range in the border of Ichchalanpaththu VS range

HS was reported in Thirteen (13) veterinary ranges during the year 2017 in Eastern, Northern, North Central, North Western, Western and Southern provinces. These outbreaks were confined to Northern Eastern provinces and laboratory confirmation was made by Veterinary Research Institute. The cases numbered 463 with overall 188 deaths. The vaccination is practiced using the Alum precipitated and oil adjuvant vaccine which is produced locally in the country. During the year 2016 in all the animals in outbreak areas have been vaccinated against HS in the country through the Divisional Veterinary officers.

#### b. Foot and Mouth Disease

Foot and Mouth disease (FMD) was reported in year round manner at twenty two (22) veterinary ranges during the year 2017. The cases numbered to 848 with overall 9 deaths. The total number of cases in bovine species numbered 752. The total number of cases recorded in the previous year (2016) was 620 with 06 deaths. During 2016, FMD cases were reported in 24 districts in the country. In Sri Lanka uncontrolled movement of cattle by traders, herdsmen and approved organizations without the knowledge of the veterinary authority has been recognized as the main factor in the spread of FMD. Hence, implementation legislative of measures pertaining to animal movement has to play a key role in this exercise of the spread, in addition to the immunization.

The distribution of cases at different Districts level is shown in *Table 3.1*.

Table 3.1: Spatial and Temporal Distribution of FMD in 2017

		No. of VS	No. of		Month(s) of
	District	range	Cases	Deaths	Occurrence
		affected			
1	Kurunegala	01	5	0	January
2	Batticaloa	03	14	0	October, February, January
3	Ampara	02	191	2	December, September
4	Polonnaruwa	01	52	0	February
5	Anuradhapura	05	335	0	January, April, May
6	Badulla	01	35	4	September, November, December
7	Moneragala	01	15	0	January
8	Gampaha	01	3	1	January
9	Kandy	01	1	0	March
10	Hambantota	02	19	2	January, February, April
11	Jaffna	01	18	0	November
12	Mullaitivu	01	145	0	April, September
13	Kegalle	01	5	0	January
14	Colombo	01	10	0	January
	Total	22	848	9	

Source: Master Return of field Veterinarians

#### b. Black Quarter (BQ)

Sixty three (63) cases of Black Quarter and Ten (10) deaths were recorded in the country during the period under review. The overall fatality rate was found to be 42%. The cases were confined mainly to Northern Province (Vavuniya, Vavuniya South, Murunkan

and Chavakachcheri) and also found in Northwestern Province Nawagaththegama Mallawapitiya, and Eastern Province Damana.

The distribution of cases at different Veterinary range level is shown in *Table* 3.2.

Table 3.2: Spatial and Temporal Distribution of BQ in 2017

	District	Veterinary Range	No. of		Month(s) of
			Cases	Deaths	Occurrence
01	Vavuniya	Vavuniya, Vavu. South	12	7	Jan, June, July
02	Mannar	Murunkan	28	0	Sep, Oct, Dec
03	Jaffna	Chavakachcheri	4	3	April
	Ampara	Damana	1	0	May
04	Puttlam	Nawagattegama	2	0	October
05	Kurunegala	Mallawapitiya	6	0	July, Aug, Sep, Oct,
					Nov, Dec
	All Island Total		63	10	

#### . Brucellosis

Two hundred and one (201) cases of Brucellosis and Ten (04) deaths were recorded in the country during the period under review.

Vaccination against brucellosis is practiced only at livestock farms by National managed Livestock Development Board (NLDB) and in selected especially areas in Anuradhapura District where high incidence of brucellosis been established and the farmers have obliged to make an agreement with the Department of Animal Production and Health. Since the vaccination requires special attention, it is carried out only by the Veterinary Investigation Officers and 5,603 vaccinations using the S-19 vaccine manufactured locally were carried during the year 2017.

#### e. Bovine Tuberculosis

Bovine tuberculosis has been reported and confirmed in cattle population since year 2012 and new cases were reportedin year 2017 too. The causative organism is the *Mycobacterium bovis* in cattle and also it can affect other domestic animals as well as wild animals.

Control program on Bovine Tuberculosis has been implemented at national level and a base line data establishment was initiated during the year 2013. Cattle reared at farms belong to National Livestock Development Board (NLDB) and animals with signs of emaciation, continuous coughing, and

continuous temperature have been screened with the Comparative Tuberculin Purified Protein Derivative (PPD) test to detect the positive animals. The screening programme revealed the following results shown in *Table 3.3*.

Table 3.3: Details of Tuberculosis Screening Programme in 2017

Veterinary Investigation Centre	Govt. Farms	Private Farms tested	No. of animals screened	No. of Test positives	No. inconclusive
Centre		iesieu	with PPD		
Ampara			65		
Anuradapura			271		
Badulla			37		
Homagama			56		
Jaffna			50		
Trincomalee			76		
Nuwaraeliya	02	0	313	105	01
Pannala			306		
Polonnaruwa			557		
Kundasale	01	02	77	12	05
Vavuniya			32		
Wariyapola			75		
Welisara			20		

#### b) Small Ruminant Diseases Contagious Pustular Dermatitis (CPD)

A total of four thousand and nine hundred ninety six (4,996) cases of Contagious Pustular Dermatitis were detected among goats in the country during the year 2017. The disease was detected in all the provinces.

There is an increase in the total number of cases by 29% when compared to the previous year. The monthly distribution of cases indicates a shift in the peak of the incidence from November to December in 2017.

#### 3.2.2. Poultry Diseases

Major poultry diseases reported by divisional veterinary surgeons in this year are Coccidiosis (259,760 cases). This disease remained as the single poultry

disease affecting the highest avian population in the country. Spatial distribution of the disease indicates its presence in all the districts in the country.

Infectious Bursal Diseases (163,713 cases) Avian Salmonellosis (45,818 cases), Fowl Pox (40,023 cases), New castle Disease (53,659 cases) Incidences of Salmonellosis is on the increase despite the efforts taken to control this disease of breeder farms.

#### a. Newcastle Disease

Newcastle disease (ND) is an endemic disease among poultry population of Sri Lanka for several decades and for which vaccine had been produced in the country for a long time in the past. Though vaccination against Newcastle disease is a commonly anticipated

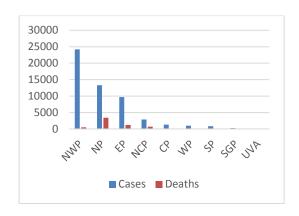
programme in the country, its application in the field especially among backyard population appears to be seldom practiced. Furthermore, most of the commercial operations usually do not strictly adhere to the recommended vaccination schedule to ensure protection of birds throughout their lifespan.

Monthly distribution of reported cases of ND in 2017 has been shown in *Figure 3.2*. In overall 53,659 cases of Newcastle disease with 6,270 death was reported in the country with 11.6% fatality rate.

Table 3.4: Distribution of Newcastle Disease (ND) – 2017

Province	Cases	Deaths
NWP	24,205	486
NP	13,320	3,437
EP	9,712	1,250
NCP	2,910	724
СР	1,311	103
WP	1,014	135
SP	834	49
SGP	251	38
UVA	102	48
Total	53,659	6,270

Outbreaks of Newcastle disease were observed in all the Provinces during the year under review. Major outbreaks were encountered in North Western Province in spite of using the locally produced vaccine in large scale. A total of 53,659 cases were recorded and 6,270 birds succumbed to death, whereas in the previous year there had been 46,807 cases with 4,928 deaths recorded in the country.



*Figure 3.2: Distribution of Newcastle Disease - 2017* 

#### b. Infectious Bursal Disease

Infectious Bursal Disease (Gumboro disease) remained as a highly prevalent poultry disease affecting the avian population in the country. Spatial distribution of the disease indicates its presence in all the districts in the country. In overall 163,713 cases were recorded during the year with 2.96% fatality rate. The temporal distributions of the recorded cases have been shown below *Table 3.5* and *Figure 3.3*.

Table 3.5: Distribution of Infectious Bursal Disease

Province	Cases	Deaths
Central	833	164
Eastern	2,824	321
North Central	17,798	803
North western	123,320	2,458
Northern	7,845	916
Sabaragamuwa	3,643	29
Southern	66	37
Uva	794	93
Western	6,590	31
Total	163,713	4,852

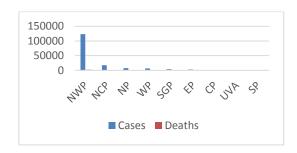


Figure 3.3: Distribution of Infectious Bursal Disease 2017

#### c. Salmonellosis

Salmonellosis in poultry is caused by mainly *S. pullorum* and *S. gallinarum*. In overall 65,716 cases with 1290 deaths were reported in commercial poultry farm during the year 2017.

Table 3.6: Distribution of Poultry Salmonellosis in Commercial Poultry Farms 2017

Province	Cases	Deaths
Western	198	20
Uva	243	20
Southern	71	2
SGP	240	10
North Western	34,684	354
Northern	1,524	94
North Central	2,546	201
Eastern	1,926	72
Central	198	20
Total	45,818	840

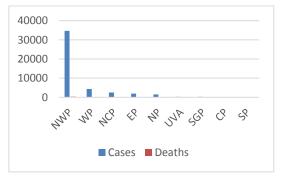


Figure 3.4: Distribution of poultry Salmonellosis 2017

### 3.3. Veterinary Public Health Activities

As it was highlighted in the OIE PVS evaluation and the Gap Analysis, and the current need of the country, Animal Health Division had recognized the importance of embarking implementing veterinary public health activities. The key components of the veterinary public health activities conducted by the Animal Health Division includes, zoonotic disease control, prevention and elimination, food safety, mitigation of anti-microbial resistance, surveillance of wildlife diseases and animal welfare as a cross cutting issue. In that context priority was given to Rabies control and mitigation of anti-microbial resistance (AMR). In order to ensure sustainability of all VPH activities at provincial level, AH Division proposed a mechanism to establish Veterinary Public Health activities at the provincial level. In addition, as a measure to steer the VPH activities from the National Level, a Veterinary Public Health Unit was established under the Animal Health Directorate.

In June 2017, Animal Health Division participated in the Joint External Evaluation of International Health Regulations implementing capacity in respect of Zoonotic Disease control and prevention and the evaluation team provided with series of recommendations in order to improve surveillance and emergency response capacity to zoonotic diseases.

#### 3.4. Rabies Control Programme

Based on the cabinet paper No 16/1858/744/014-1 dated 2016.10.05, steps were taken to launch the stray dog population control activities and rabies control activities island wide. Even though the official transfer of the program was planned for 2018, AH Division took initial steps to implement the anti-rabies vaccination program island wide through Divisional Veterinary Offices. In addition, pilot animal birth control programs and activities also awareness were conducted at the divisional level. The overall theme of the rabies control to "Eliminate program was dog mediated human rabies through responsible dog ownership" with the aim to bring down deaths due to rabies to zero by year 2020. During the year Animal Health Division actively participated in the National Steering meetings Committee assisting DG/DAPH to finalize the implementing modalities of rabies and dog population control programs Island wide. During the year 2017, in total 194,430 animals were vaccinated against rabies through Divisional Veterinary Surgeon Offices as well through the Faculty Veterinary Medicine and Municipal Councils. In line with the World Rabies Day 2017, the National Rabies Project was launched in Anuradhapura with the participation of the Hon P. Harrison, the Minister of Rural Economy. In addition, island wide series of animal birth control programs as well as awareness programs were conducted with the support of Provincial DAPH.

#### 3.5.Awareness program on Antimicrobial Resistance (AMR)

In line with the Global Action plan on Anti-microbial Resistance, Animal Health Division was involved national level discussions to develop the National Action Plan to Mitigate Antimicrobial Resistance in Sri Lanka. With the financial support of WHO received Lanka College through Sri Microbiologists, and Sri Lanka Veterinary Association, Animal Health Division jointly organized five awareness programs for the benefit of Veterinary Divisional Surgeons employed under the Provincial Departments of Animal Production and Health. The program consisted of theme presentations conducted by identified resource persons followed by lengthy discussions. At the awareness programs;(1) Antimicrobial resistance in bacteria associated with animals and animal originated food: Evidence from recent local studies (2) Contribution of In-feed antibiotics to AMR (3) How to produce antibiotic free chicken" (highlight on nutrition) (4) Importance of bio-security to minimize AMR (5) Managing AMR at the Human-Animal Interface (6) Use of Antibiotics in veterinary practice" (highlight on the quantities imported to the country) were discussed. 189 Divisional Veterinary Surgeons attended in the awareness programs.

#### 3.6. Contagious Diseases Control

Preventive vaccination programs have been carried out against economically important major livestock diseases such as Foot and mouth disease (FMD), Haemorrhagic Septicaemia (HS) and Black Quarter (BQ) in ear marked locations in the country. BQ vaccine was produced locally in adequate amount to meet the demand for preventive as well as control vaccination in case of outbreaks. Haemorrhagic Septicaemia oil adjuvant vaccine was produced for mass-scale preventive vaccination and the Alum precipitated vaccine was produced as an emergency pre requisite to control any outbreak of HS that could happen unpredictably. Six hundred thousand (600,000) doses of Foot and mouth vaccine (mono-valent, type 'O') was imported from India.

#### 3.6.1. Vaccination of Livestock

All the vaccine stocks were maintained at the Vaccine Bank and supplied to the

Provinces as per the vaccination schedule. These were delivered in refrigerated vaccine transport truck and distributed at district level and in some occasions to the Veterinary ranges too. In total 880,225 doses of Foot and mouth vaccine and 170,082 doses of BQ vaccine have been supplied during the period under review as per shown in *Table 3.7*.

Table 3.7: Issue of Vaccines to the Field in 2017

Province		Type of Vaccine in doses		
	FMD	BQ		
North Western	140,000	50,820		
Eastern	225,565	32,802		
North Central	142,065	31,251		
Northern	139,175	55,209		
Southern	54,000	0		
Uva	50,750	0		
Western	55,000	0		
Central	57,625	0		
Sabaragamuwa	16,045	0		
Total	880,225	170,082		

Table 3.8: Province-wise Vaccination Targets and Achievements in 2017

Province	FMD			BQ
	Target	Achievement	Target	Achievement
North Western	140,000	140,000	72,000	50,820
Eastern	260,000	225,565	51,000	32,802
North Central	150,000	142,065	30,000	31,251
Northern	200,000	139,175	74,000	55,209
Southern	60,000	54,000		
Uva	47,000	50,750	1,000	0
Western	80,000	55,000		
Central	15,000	57,625		
Sabaragamuwa	18,000	16,045		
Total	970,000	880,225	22,8000	170,082

#### 3.6.2. Vaccination of Poultry

Table 3.9: Vaccination against Newcastle Diseases using locally produced Vaccine

Province	Vaccination
Western	450,000
Central	25,000
Southern	15,000
North Central	80,000
North Western	125,000
Northern	1715,000
Eastern	2186,200
Uva	33,800
Sabaragamuwa	0
Total	4,630,000

### 3.7. Special Animal Health Programs

### a. Livestock Health Improvement Project

A special project had been initiated in year 2016 in selected dairy farms at districts where functioning Veterinary Investigation Centres are located in order to monitor the disease status closely and to assist to improve the health and production in these farms.

The field level implementation was carried out through the respective Veterinary Investigation Centres in these districts.

The Project envisaged at fulfilling the long term need of establishing active focal points for disease monitoring and surveillance at district level. The selected farms were identified with georeference, a database was developed with all relevant information and the farms were visited by the respective VIOO on a regular basis.

Under this project Two thousand and fourhundred sixty three (2463) dairy farms have been visited by the Veterinary Investigation Officers during the year 2017. Subsequently, 23,140 milking cows have been subjected to California Mastitis Test (CMT) for early detection of sub clinical mastitis.

Moreover, 1,472.5 liters of teat dip solution and 342 liters of CMT Reagents were prepared at VICC and were distributed among these famers and relevant Veterinary Surgeons in order to improve the hygienic practices in these farms. Samples that have shown high positive reactions to CMT have been further subjected laboratory to **Bacterial** investigation. cultures indicated the presence of Staphylococci, Streptococci, and E. coli species.

Antibiotic sensitivity tests (ABST) identified the antibiotic namely Neomycin, Enrofloxacin, Gentamycin, Streptomycin and Oxytetracycline as drugs of choice at different instances. It was recommended to use these drugs using the locally produced udder base as the vehicle for incorporating these antibiotics for preparation of more appropriate and economically beneficial udder infusions to be used at farm level. A total 14,295 vials of udder base was produced by the VICC in 2017. Furthermore, intra mammary preparations comprising the most appropriate antibiotics were prepared at some VICC and supplied for treating mastitis cases.

#### b. Avian Influenza Surveillance Programme

Avian influenza surveillance is a key component in emergency preparedness against the disease in non-infected countries and it plays a major role in early warning system against the introduction of this exotic disease. It also provides early warning in probable emergence or re-emergence of Highly Pathogenic Avian Influenza virus in the country.

The surveillance programme for the entire country is prepared, coordinated and monitored for its proper implementation. The field level implementation is carried out by the Veterinary Investigation Officers.

There are three major components identified in the HPAI surveillance programme, the Clinical disease surveillance, Sero-surveillance and targeted Epidemiological surveillance. Clinical disease surveillance is carried out by field Veterinary Surgeons and District Veterinary Investigation Officers. In any suspicious situation, field investigations are carried out and established the cause.

Sero-surveillance is designed to monitor the antibody status in commercial layer and broiler operations. The sampling sites are identified at range level by Veterinary Surgeons according to the poultry population in that particular district under the DAPH Farm Registration Programme.

The surveillance program is repeated annually. There are 300 sampling sites identified in the country and 15 samples

are collected at each site from eligible birds.

surveillance is **Epidemiological** undertaken to monitor mainly the migratory birds from 35 hot spots in 11 coastal districts in the country and village chickens in the adjoining locations. Fresh feacal samples and cloacal swabs of migratory birds, cloacal swabs and serum samples of backyard poultry and ducks, cloacal swabs of poultry in live bird market and poultry collected processing plants are District Veterinary Investigation Officers. All the samples including serum, cloacal swabs are tested at Veterinary Research Institute, Animal Virus Laboratory located at Polgolla.

The national surveillance programme against Avian Influenza initiated in 2007 continued in year 2017 too. Field level implementation was carried out mainly by the Veterinary Investigation Officers. The sero surveillance Programme for the prepared, entire country was coordinated and monitored for efficiency and effectiveness. A total of 5,716 Serum samples were collected from commercial layer and broiler birds during the year under review and samples were tested by the Division of Enzyme Virology using Linked Immuno-sorbant Assay (ELISA). There have been sero-reactors to evidence the presence of Avian Influenza type 'A' virus antibody and the Reactor rates at district level varied.

The sero-reactors have been further tested to establish the presence or absence of H5, H7 and H9 subtypes. The

testing programme continues to the following year too.

The risk-focused Targeted surveillance programmes were carried out during the year 2017 too. Four thousand six hundred and thirty one (4,631) fresh droppings were collected from migratory birds at hot spots. Five thousand and one hundred eighty one (5,181) cloacal swabs were collected from back-yard poultry in the vicinity of hot spots. A total of one thousand and one hundred forty one (1,141) samples from live bird markets and thousand and five hundred ten (2,510) samples from poultry processing establishment were collected during this year by District Veterinary Investigation Officers and subjected to virus isolation by inoculating chicken embryonated eggs. The results were found to be negative for the presence of avian influenza viruses.

#### c. Salmonella Control Programme

All the Poultry Breeder farms having either parent birds or grandparent birds have to be in salmonella-free status in order to ensure the production and supply of salmonella-free chicks from their farms.

Accordingly these farms have been instructed to carry out regular screening programmes to be followed by official verification by the relevant Veterinary Investigation Centers and the Veterinary Research Institute (VRI).

As the Salmonellosis is an economically important poultry disease, the Department of Animal Production and Health is implementing a Salmonellosis

control program in poultry breeder farms and hatcheries in the country. There were 55 poultry parent farms, 03 Grandparent farms and 40 hatcheries registered with the Department for the year 2017. These farms were instructed to carryout regular screening of every batch in particular age. Verification was carried out by relevant Veterinary Investigation Officers.

All the breeder flocks which were verified by the Veterinary Investigation Officers found to be less than 1% reactors for Salmonellosis and all the hatcheries were negative for Salmonella infection for this year. The three Grand Parents farms were subjected to verification by VRI and found to be free of Salmonella by the screening test

#### 3.8. Veterinary Investigation Service

concept of strengthening laboratory back up for Veterinary services by providing Veterinary Investigation facilities at District level by District Veterinary Investigation Centres (VICC) was recognised in Year 2006. Accordingly, two new Veterinary Investigation been Centres have during the 2016. declared year Furthermore, works have been nearly completed to declare open the Investigation Veterinary Centres Killinochchi and Mulathevu Districts while activities have been initiated to establish the same at Kundasale in Kandy Districts.

Veterinary Investigation Centres focused mostly on animal disease investigation in order to support the disease surveillance system in the

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country. There were 359 field level investigations carried out during the year 2017. Foot and Mouth Disease, Black Quarter, Hemorrhagic septicemia Brucellosis, Babesiosis, Theilariasis and Mastitis in cattle and buffaloes: Newcastle Disease, Salmonellosis, Infectious Bursal Disease and Coccidiosis in poultry are some of the specific disease conditions diagnosed or/and confirmed at District Veterinary Investigation Centers during this period. Veterinary Investigation Centers played the leading role in immunization of cattle against bovine brucellosis, bovine babesiosis, contagious pustular dermatitis (CPD) vaccination in goats; mastitis control programme in cattle; salmonella control programme poultry breeder farms and influenza surveillance programme at national level. Detail information on activities performed at Veterinary Investigation Centers during the year 2017 has been shown in Annexure III.

### 3.9. General comments and forecasted future development

Even though Animal Health function is scattered and handled by several units under different heads every possible effort has been taken to put them under a common command. The following areas have been identified for future development in order to achieve animal health improvement towards the vision of 'Disease free livestock for better tomorrow in Sri Lanka'.

 Animal quarantine is a key area of animal disease management

- especially in island countries like Sri Lanka in preventing the entry of exotic diseases into the country. However, facilities pertaining to quarantine activities need to be upgraded including the basic facilities for officers engaged in quarantine inspection as well as animals under quarantine.
- Special man power development programme for capacity building of VIOO to qualify at Master level in Pathology, Bacteriology, Public health, Food hygiene and Epidemiology.
- Man power recruitment for minor staff especially drivers carder to be fulfilled early.
- Laboratory maintenance system need to be established in order to ensure that the equipment are maintained at required level of standard continuously to provide expected results with adequate repeatability.
- Epidemiology unit and geo-based spatial disease data base and surveillance system to be developed to be in line with international animal health information systems and their online applications.
- Information Communication
   Technological facilities and
   networking of Epidemiology units
   and Veterinary Investigation
   Centres need to be initiated.
- Linkage with global disease situation and declaration of disease free status of identified OIE listed diseases to be achieved.

#### 3.10. Financial Progress

The capital and recurrent financial allocation and expenditure for the year 2017 are as follows.

	Allocation (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	967.60	729.28	75.30%
Recurrent	14.05	14.02	99.81%

#### 4. ANIMAL BREEDING DIVISION

#### 4.1. Introduction

Animal breeding division is responsible for national level livestock genetic improvement through facilitation of appropriate breeding techniques and logistic support.

Deep frozen semen is produced at Kundasale and Polonnaruwa Artificial Insemination centers for artificial insemination (AI) of cattle, buffalo and goat. In addition, field AI programs are facilitated by supplying semen of specific genetic merits imported from other sources. Semen sexed female offspring are also supplied to provinces on demand. The national AI program is monitored and centrally assessed by the division. In addition, nutritionally balanced feeding and feed resource utilization for crossbred cattle and buffaloes in provincial level is promoted through supply facilitation of seeds and planting materials.

Two goat breeding farms located at Thelahera and Imbulandanda maintain nuclease flocks of Jamunapari goat and generally issue stud goats for breeding purposes.

#### Main Functions of the Division

- Conservation and sustainable utilization of Livestock Genetic Resources.
- Improving the genetic make-up through the use of Animal Reproductive Technologies.
- Enhancing the available feed resource base through the introduction of fodder resources.
- Development of skilled human resources in order to strengthen the animal breeding services.

# 4.2. Special Livestock Development Projects implemented during the year 2017

#### 4.2.1. Livestock Breeding Project

Livestock Breeding Project encompasses facilitate national AI service and natural service, procurement of germplasm, monitor changes in population trends of Animal Genetic Resources (AnGR), upgrading livestock & poultry and enhance feed resources production and utilization.

#### a. Production of Semen (No. of doses)

Species/Breed	AI Center  Kundasale Polonnaruwa		
Jersey	-	124773	
Friesian	-	68655	
Cross	20,766	61544	
Sahiwal	24,090	-	
Murrah	844	-	
Total	45,700	254,972	

#### b. Import of Semen

900 doses of Jersey sexed semen, 1,000 doses of cross bred semen and 500 doses of Friesian semen were imported during the year 2017 to maintain the diversity in local populations.

#### c. Distribution of Semen

Table 4.2: Breed-wise distribution of semen - 2017

Species	Breed	Locally	Imported	Total
		produced		
Cattle	Jersey	147,684	1,584	149,268
	Jersey (Sexed)	Nil	385	385
	Frisien	41,131	78	41,209
	Frisien (Sexed)	Nil	2	2
	Sahiwal	21,403	720	22,123
	Cross	64,785	Nil	64,785
	Giro lando	Nil	1,705	1,705
Buffalo	Murrah	4,310	12	4,322
	Niliravi	Nil	40	40
Goat	Boer	5	Nil	5
	Jamnapari	7,210	20	7,230
	Sannan	203	85	288
	Total	286,731	4,631	291,362

#### d. Artificial Insemination Service

Artificial Insemination (AI) is the proven and efficient reproduction techniques widely practiced in the island. Mainly cattle and less frequently buffaloes and goats are inseminated by the trained field staff of both state and private technicians. The role of the Animal breeding division is to facilitate and monitor the program. Good quality semen is produced at Artificial Insemination centers located at Kundasale and Polonnaruwa and distributed to the Veterinary office together with the liquid nitrogen which is required to maintain the keeping quality.

Table 4.3: Targets, performance and achievement of AI - 2017 (Cattle and Buffaloes)

Province	Target	Performance	Achievement (%)
Uva	26,635	23,950	90%
North Central	21,000	19,493	93%
Central	60,700	56,386	91%
Sabaragamuwa	8,388	7,114	85%
North Western	73,000	55,098	81%
Western	26,528	17,916	68%
Eastern	13,375	9,544	71%
Southern	15,930	9,755	61%
Northern	36,915	32,616	88%
Island Total	282,471	234,924	83%

#### Pregnancy Diagnosis (PD)

Pregnancy diagnosis (PD) is performed by the range Vet surgeons, usually two months after insemination manually by per rectal examination to confirm the pregnancy. National achievement in PD during 2017 was 70,347 (56%).

Table 4.4: Province-wise target, performance and achievement of PD - 2017

Province	Target	Performance	Achievement (%)
Uva	12,723	11,313	89%
Central	21,730	10,193	47%
Eastern	7,338	5,256	72%
Southern	9,570	6,284	66%
Northern	9,668	5,188	54%
North Central	9,525	5,005	53%
Sabaragamuwa	4,873	3,552	73%
Western	13,385	5,941	45%
North Western	36,500	17,615	48%
Island Total	125,312	70,347	56%

#### Calving

Calving resulted due to AI is usually reported by the field staff through the respective Veterinary Surgeons. Reported national such number of calving was 66,184.

Table 4.5: Province wise target, performance and achievement of calving -2017

Province	Target Performance		Achievement (%)
Central	19,113	12,656	66%
Uva	8,639	7,095	82%
Southern	4,300	4,088	95%
Sabaragamuwa	3,207	2,582	81%
North Central	6,345	4,494	71%
North Western	37,203	22,073	59%
Eastern	5,162	2,992	58%
Northern	8,871	6,611	75%
Western	12,040	3,751	30%
Total	104,880	66,184	63%

#### AI Training

Fresh training and refresher training are conducted by the DAPH to train and

refresh both state and private AI Technicians as per the requests made by the range veterinary surgeons. All the competent AI technicians are registered

and issued a code number for easy monitoring purpose.

Table 4.6: Training on AI for Field staff and students 2016

Technician Category	No.
	Trained
Veterinary Surgeons	-
LDO (Fresh)	36
LDO (Refresh)	-
Private Tech (Fresh)	72
Private Tech (Refresh)	-
Diploma students:	165
Karadagolla	
LDO NLDB (Fresh)	21
LDO NLDB (Refresh)	-
Total	294

#### e. Infertility Investigations:

The infertility cases in cattle/buffaloes reported by the range VSs are usually attended by this division and total of 784 such cases were attended during the year 2017

#### f. Oestrus Synchronization

Oestrus Synchronization programs are conducted or supported to the range VSs by the division and one such program was attended during 2017.

#### g. Natural breeding improvement

Breeding improvement in large herds mainly in the dry zone districts under extensive management has no access to national AI facility and therefore, selected genetically improved stud bulls are provided to such farmers under 50% concession of the real value.

Table 4.7. Issue of stud bulls selected and screened for common diseases 2017

	Target	Achievement *
Cattle	100	42
Buffaloes	50	02
Total	150	44

<sup>\*</sup>Progress slowed due to competitiveness with middlemen for purchasing bulls for beef.

#### h. Pedigree and Performance Recording Scheme (PPRS)

This project currently is implemented as a pilot breeding project in Kurunegala, Anuradhapura, Polonnaruwa, Nuwaraeliya and Badulla districts. The main target is to identify locally adapted dairy cows with superior genetic merits for lactation yield. Such cows are impregnated with imported proven semen. The bull calves, born to those cows, would possess quantitative Trait Loci (QTL) responsible for both adaptability and additive effect of superior lactation vield. The sons of selected cows are again selected and screened as future semen donors for Artificial Insemination Centers and semen is expected to utilize in local AI programs.

Six (06) number of certified bull calves have been screened and procured during 2017. Capacity building among farmers on the project was implemented and 350 farmers participated. In addition, 30 Livestock Development Instructors (LDIs) and 20 Veterinary Surgeons were exposed to knowledge update program.

#### i. Pasture development

Facilitation of nursery development under provincial DAPH level was undertaken and total of six such nurseries were supported during 2017 with technical directions and some

inputs including seed and planting materials.

Table 4.8. Progress of the pasture /fodder development activities 2017

Activity	Target	Achievement
TOT on production and utilization (md)	300	350
New establishment of fodder in AI centers (ha)	08	09
Fodder nursery improvement (no.)	09	10
Fodder conservation as hay (Mt.)	3.5	7.5

#### j. Goat development

Division of Animal Breeding maintains two nuclear level goat farms with high genetic merits of *Jamunapari* goat breed. Main objective of the two nuclear goat farms, being the issue of stock for breeding purpose, 489 goats (154 stud goats and 335 female goats) have been issued to the fattener farmers.

### k. Strengthening of Field level goat breeder farms

Breeding stock produced by the two state goat breeding farms is much lower than the annual demand; private breeding farms located in the various locations are also promoted to produce suitable and genetically acceptable quality kids by facilitation of providing specially selected stud goat for each farm. It was then expected that smallholder flock owners have the access for kids at reasonable rate. Follow-up is continued to make the intervention more sustainable.

### 4.2.2. Heifer Calf Rearing (HCR) project

Overall outcome of the project is to optimum utilization of AI born heifer calves to raise them as good milkers throughout their lifetime. It is an island-wide project and cash incentives are provided to the farm owners of such registered heifers to motivate them for appropriate feeding of the heifers.

Table 4.7: Physical Achievements of Heifer Calf Rearing Project 2017

Payment of incentive	es	Unit	Target	Achievement*
Farmer incentives	No. registered	No. of	21,250	21,182
	2 <sup>nd</sup> Installment	payments	3,000	3,033
	3 <sup>rd</sup> installment	]	2,000	1,154
	4 <sup>th</sup> installment		1,000	1,001
Monitoring of registered calves			200	199

<sup>\*</sup>Targets were hampered due to incidence of Foot & mouth disease prevailed during the year.

#### 4.3. Financial Progress

	Allocation (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	212.48	147.03	69%
Recurrent	3.05	2.272	74%

The capital and recurrent financial allocation and expenditure for the year 2017 are as follows.

#### 5. VETERINARY RESEARCH INSTITUTE

#### 5.1. Introduction

Veterinary Research Institute (VRI) is the only national level Research Institute, involved in veterinary diagnostic, research, consultancy, technology teaching and transfer activities in the livestock sector. In view of improving animal health livestock production in the country a number of innovative livestock products have been developed and produced by the VRI to the farming community and other stakeholders of the industry. On the other hand diagnostic testing, laboratory and advisory services are carried out by the VRI with the intention of uplifting socioeconomic status of the livestock farming community. Basic and applied research are conducted collaboration with various national and international institutions in

order to explore the novel concepts and scientific advancements.

#### Main functions of the VRI

- Carryout animal production and health research
- Production of Veterinary vaccines and other biological.
- Laboratory disease diagnostics and investigation
- Provide analytical facilities
- Provide referral laboratory facilities for the livestock industry and other institutions, both nationally and internationally.
- Provide inputs for dairy, poultry and other livestock sectors.
- Provide technology expertise.
- Support implementation of regulations and legislative enactments related to livestock sector.

#### 5.2. Products and Services

The details of manufacture and issues of veterinary products by the VRI in 2017 are as follows.

#### 5.2.1 Products issued

#### a. Vaccines

Vaccine	Production	Issues (Doses)
	(Doses)	
Hemorrhagic Septicemia (HS) (Oil/Alum)	322,520	322,520
Black Quarter (BQ)	197,142	197,142
Foot and mouth disease (FMD)	171,900	171,900
Tick fever (Bivalent B bovis & B bigemina)	420	720
Brucella S 19	0	8200
Newcastle Disease (ND)	4,979,600	4,979,600
Fowl cholera	179,190	179,190
Swine pasteurellosis	3,000	3,000
Wart vaccine	4	4

#### b. Diagnostic reagents

Reagent	Quantity Issued
CMT reagent (L)	34.7
Pullorum antigen (doses)	158,362
RBPT antigen (ml)	165
MRT (ml)	170

#### c. Therapeutic reagents

Reagent	Quantity Issued
Teat dip solution (L)	70.5
Udder infusion (Vials)	24,348

#### d. Starter cultures

Starter culture	Quantity Issued
Yoghurt culture (vials)	52
Curd culture (vials)	352

#### e. Chicks issued from Central Poultry Research Station, Karandagolla

Chick type	Number Issued
Day old chicks (Backyard poultry)	110,250

#### **5.2.2 Services**

#### a. Examination of specimens

Specimen Type	No. of Samples
Blood smears for parasites	1,276
Faecal samples for parasites	960
Skin/Litter/Ticks/Intestinal samples for parasites	1,076
Litter/ bedding samples	64
Skin scrapings	364
Blood samples for disease diagnosis	13
Plasma/blood/serum for brucellosis, leptospirosis and	
pasturella	1,461
Tissue samples for histopathology	1,636
Tissue samples for microbiology	1,644
Milk samples for CMT	235
Milk & poultry samples for ABST	137
Serum samples for viral disease diagnosis	8,385
Tissue samples for viral disease diagnosis	56
Clocal/fecal swabs, egg parts, chicken powder for viral	14,587
disease diagnosis	
Urine samples	22
Semen samples for trichomonas	3

Specimen Type	No. of Samples
Intestinal samples	21
Feed samples for microbiological quality	1,558
Day old chick samples	57
Fish samples for microbiology, parasites and PCR	1,770
Water samples for microbiology	162
Number of PCR done for ruminant, poultry & other	561
monogastric animals	
Microbiological culture tests carried out	8,295
Total bacterial counts performed	927
Seed preparation of bacterial vaccines (no. of batches)	25
Quality testing bacterial vaccine harvests (no. of batches)	35
Quality testing bacterial vaccine final product (no. of batches)	37

#### b. Analysis, identification and quality testing of samples

Sample Type	No. of samples
Feed samples for proximate components and minerals	1,296
Mineral mixtures and blood samples for mineral analysis	10
Milk and Milk products samples for microbiological quality	316
Milk and milk products samples for compositional quality	1,409
Species identification using meat, skin and blood samples	144
Soil samples for chemical properties	86
Water samples for chemical properties	35
Plant samples for nitrate, oxalate and soluble carbohydrates	547
Seed samples for purity, germination and viability	28
Silage samples for quality testing	770

#### c. Field and laboratory investigations

Investigation Type	No. of
	investigations
Field Disease Investigations	11
Postmortems	1,988
No. of Lab Disease investigations	798
Field Investigation into nutritional problems	2
Field Investigation into milk quality control problem	1
Ration formulation evaluations	70
Confirmation of contagious / Notifiable diseases	15

#### 5.3. Clients Registered at VRI

Place of registration	No. of clients
Coordinating unit	3,447
Central Poultry Research Station	773
Animal Virus Laboratory	568

#### 5.4. Research Projects

Research projects conducted during the year are as follows:

01. Title: Effectiveness of electrical conductivity(EC) on the diagnosis of subclinical mastitis in dairy cows and its relation with other mastitis detection methods

Principal Investigator: Dr. U.L.P. Mangalika

Collaborating Scientists: Dr. A.P.D.G. Pathirana, Dr. P.S. Fernando, Dr. V. Bandara

**Duration**: 2 Years

Status of the project: Completed

02. Title: Potential of Duck Weed and Azolla as low cost feed substitutes for farm animals in small scale farming in Sri Lanka.

Principal Investigator: Mrs. I.K. Leukebandara

**Collaborating Scientists:** 

**Duration**: 2 Years

Status of the project: Completed

03. Title: Effects of use of improved fodder varieties as cattle feed

Principal Investigator: Dr. W.M.P.B. Weerasinghe

Collaborating Scientists: Mr. G.G.C. Premalal, Dr. N. Priyankarage, Dr. M.W.C.D.

Palliyeguru

**Duration**: 3 years

Status of the project: Completed

**04. Title:** Evaluation of the quality of local fish meal in Sri Lanka, to examine a proper processing technology suitable for the country

Principal Investigator: Dr. M.W.C.D. Palliyeguru Collaborating Scientists: Dr. N. Priyankarage

**Duration**: 3 years

Status of the project: Completed

05. Title: Preliminary study to differentiate buffalo and cattle milk using PCR assay and develop a PCR based method to quality assurance of buffalo curd and yoghurt

**Principal Investigator**: Dr. U.L.P. Mangalika

Collaborating Scientists: Dr. A.P.D.G. Pathirana, Dr. K.H.D.T. Kasagala

**Duration**: 2 Years

Status of the project: Completed

**06. Title:** Isolation and identification of aflatoxin producing fungi and determination of total aflatoxin levels in pre and post-harvest in Anuradhapura district during Yala & Maha

Principal Investigator: Dr. A.P.D.G. Pathirana

Collaborating Scientists: Dr. N. Priyankarage, Dr. S.S.P. Silva, Dr. P.S. Fernando,

Dr. R. Munasinghe **Duration**: 2 Years

Status of the project: Completed

**07. Title:** Determining dietary cation anion difference, grass tetany index and NIRS prediction of the composition of major forages in central province, Sri Lanka

Principal Investigator: Dr. A.P.D.G. Pathirana

Collaborating Scientists: Dr. N. Priyankarage, Dr. S.S.P. Silva, Dr. U.L.P. Mangalika,

Mr. G.G.C. Premalal **Duration**: 3 Years

Status of the project: Completed

**08. Title:** Determining the prevalence of Neospora Caninum in bovines in Central and Uva province.

**Principal Investigator**: Dr. N.D.S. Dissanayake **Collaborating Scientists**: Dr. S.S. Iddamaldeniya

**Duration**: 2 Years

Status of the project: Continued to 2018

**09. Title:** Introduction of oil adjuvant vaccine against Newcastle disease for Layers.

**Principal Investigator**: Dr. H. Kothalawala **Collaborating Scientists**: Dr. S. Puwanendiran

**Duration**: 2 Years

Status of the project: Continued to 2018

**10. Title:** Development of flock screening rapid test for mycoplasma infection in poultry.

Principal Investigator: Dr. K.M.S.G. Weerasooriya

Collaborating Scientists: Dr. P.S. Fernando, Dr. N. Liyanagunawardana

**Duration**: 3 Years.

Status of the project: Completed

**11. Title:** Efficient utilization of minerals in raw materials used in poultry feed; Calcium & Phosphorus

Principal Investigator: Dr. N. Priyankarage

Collaborating Scientists: Dr. W.M.B.P. Weerasinghe, Dr. A.P.D.G. Pathirana,

Dr. M.W.C.D. Palliyeguru

**Duration**: 2 Years

Status of the project: Continued to 2018

12. Title: Layer performances and Egg Quality characteristics affecting the hatchability, in village chicken at CPRS, Karandagolla

Principal Investigator: Dr. M.W.C.D. Palliyeguru

Collaborating Scientists: Dr. N. priyankarage

**Duration**: 2 Years

Status of the project: Completed

13. Title: Examine the efficacy of selected probiotics and Photobiotics to replace

antibiotics in poultry feed

Principal Investigator: Dr. M.W.C.D. Palliyeguru Collaborating Scientists: Dr. N. Priyankarage

**Duration**: 2 Years

Status of the project: Continued to 2018

14. Title: Evaluation of Level of Antibiotic Residues in Livestock Products and

Antimicrobial Resistant Pattern of Mastitis Organisms

Principal Investigator: Dr. P.S. Fernando

Collaborating Scientists: Dr. K.M.S.G. Weerasooriya

**Duration**: 2 Years

Status of the project: Completed

15. Title: Phenotypic and Moleular characterization of salmonella isolates in the chai of

broiler industry in Sri Lanka

Principal Investigator: Dr. N. Liyanagunawardana

Collaborating Scientists: Dr. P.S. Fernando, Dr. R. Kalupahana

**Duration**: 3 Years

Status of the project: Completed

**16.** Title: Development of new vaccine seed for *Babesia bovis* 

Principal Investigator: Dr. S.S. Iddamaldeniya

Collaborating Scientists: Dr. N.D.S. Dissanayake, Dr. N.A.D.E.M. Gunasekara

**Duration**: 4 Years

Status of the project: Completed

17. Title: Devising a protocol for Theilaria orieentalis cell culturing and sequencing

T.orientalis type 1 found in sri lanka

Principal Investigator: Dr. S.S. Iddamaldeniya

Collaborating Scientists: Dr. N.D.S Dissanayake, Dr. N.A.D.E.M. Gunasekara,

Dr. M.L.W.P. De Silva, Dr. N.K. Jayasekara, Dr. K.H.D.T. Kasagala

**Duration**: 1 Year

Status of the project: Completed

**18. Title:** Immuno Histopathological Study on Porcine Reproductive and Respiratory Syndrome (PRRS) and Porcine Parvo Virus (PPV) infection

Principal Investigator: Dr. T. Manchanayake

Collaborating Scientists: Dr. S. Puwanendiran, Dr. G.I.S. Perera, Dr. P. Bandara, Dr.

K.G.J.S. Disnaka **Duration**: 3 Years

Status of the project: Continued

19. Title: Study on Use of Histopathological and Immuno Histochemical Techniques for

Detection of Bovine Tuberculosis

Principal Investigator: Dr. G.I.S. Perera

Collaborating Scientists: Dr. T. Manchanayake, Dr. P.S. Fernando, Dr. H.R.N.

**Jinadasa** 

**Duration**: 3 Years

Status of the project: Continued

**20. Title:** Study on the Prevalence and Economic impact of Contagious Pustular Dermatitis in Goats in Sri Lanka and isolation of Contagious Pustular Dermatitis

Virus

**Principal Investigator**: Dr. S. Puwanendiran

Collaborating Scientists: Dr. S. Piratheepan, Dr. H. Kothalawala

**Duration**: 1 Year

Status of the project: Completed

**21. Title:** Identification of reliable method for laboratory diagnosis of tuberculosis using nasopharyngeal swabs and saliva of PPD positive cattle and buffalo.

**Principal investigator:** Dr P. S. Fernando

Collaborating Scientists: Dr N. Liyanagunawardena, Dr K.M.S.G. Weerasooriya,

Dr. C.D. Gamage

**Duration:** 2 years (2017 -2018)

Funded by: National Research Council

### 5.5. Research Publications in 2017

Details of research publications are in *Annex IV*.

### **5.6. Financial Progress**

The capital and recurrent financial allocation and expenditure for the year 2017 are as follows.

	Allocation (Rs. Mn.)	Expenditure (Rs. Mn.)	Achievement %
Recurrent	25.6	32.2	125.9 *
Capital	13.7	10.5	76.3
Special capital projects	96.5	86.9	90.1

<sup>\*</sup> Certain transfers were done during the year

### 6. HUMAN RESOURCE DEVELOPMENT DIVISION

#### 6.1. Introduction

The Main responsibility of Human Resource Development Division is to develop human resources in order to meet the present and future needs of the livestock sector.

HRD Division administers following seven (07) units.

- Institute of Continuing Education for Animal Production and Health (ICEAPH), Gannoruwa, Peradeniya.
- Sri Lanka School of Animal Husbandry (SLSAH), Karandagolla, Kundasale.
- Sri Lanka School of Animal Husbandry (SLSAH),
   Seeppukulama, Anuradhapura.
- The Department Library, Gannoruwa, Peradeniya.
- Information Communicating Unit.
   / Hot Line.
- Livestock Knowledge center, Getambe.
- Livestock Technology Park.

### Main Functions of the Division

- Training and technology transfer
- Education and career development
- Livestock Promotion
- Entrepreneurship development and self- Employment support services
- Testing and Evaluation

### 6.2. Training and Transfer of Technology

### 6.2.1.Training Conducted at ICEAPH

The ICEAPH strives to conduct year round training programs, workshops, seminars to upgrade the knowledge and improve the skills of the officers of this department and personnel of other organizations who are involved in the livestock industry activities.

Achievement of training conducted during 2017 at ICEAPH is given in *Table 6.1* and *Table 6.2*.

Table 6.1: Details of Training conducted at ICEAPH

Category	No. of Programs Planned	No. of Programs Conducted
AP& H Service Officers	48	19
Middle Level Officers	26	07
Development Officers	07	03
Supportive Staff	06	04
Others	07	01
Total	94	34

Table 6.2: Progress of Training Conducted at ICEAPH

Item	Target	Achievement
Number of Trainees/ participants	2,977	1,041
Number of training man days	12,312	3,128

### 6.2.2. Special training conducted during the year

The special training conducted during the year 2017 is given below;

Name of the	No. of	Number	Man
Program	Program	of	days
	conducted	participated	
Induction	02	230	2019
Training			
Training	19	604	2204
programs			
grade iii			
officer (APH)			
DETI	04	380	1220
Training			
Total	25	1,214	5,443

### 6.2.3.Training at Sri Lanka School of Animal Husbandry (SLSAH), Seeppukulama

At SLASAH, Seeppukulama twelve (12) training programs were conducted during the year and 475 trainees participated. Details are as follows.

Category of participants	No. of programs	No. of participants
Government officers	02	65
Farmers	05	160
Student	04	130
Nurse	01	120
Total	12	475

### 6.3. Educational and Career Development

### 6.3.1. Sri Lanka School of Animal Husbandry (SLSAH) Karandagolla, Kundasale

New batch for the academic year 2017-2019 was enrolled on 2017.07.10 Number of students for this programme is 128. The batch continued in the first academic year with the practical training. Final Exam (2<sup>nd</sup> year) was completed for the 2015-2017 batch. No. of 78 out comers 68.

### 6.3.2 Sri Lanka School of Animal Husbandry (SLSAH) Seeppukulama, Anuradhapura

The SLSAH, Seeppukulama has been conducting two (02) year Diploma Programme in Animal Husbandry.

New batch for the academic year 2017 - 2019 was enrolled on 2017.07.10 Number of students for this programme is 48. Students are continuing in the first academic year with the practical training.

Final Exam (2nd year) was completed for the 2015-2017 batch.



Figure 6.1: Diploma students engaged in practical training

### 6.3.3. Internship Training for Veterinary Graduates

One (01) internship programme was conducted and completed in the year 2017. Details of these programs is given below.

Batch Number	No. of Internees	Date of Commencement	Date of Completion
DAPH/ICE/2017	73	1st batch 2017.01.02	2017.07.01
		2 <sup>nd</sup> batch 2017.03.01	2017.09.01

### 6.3.4. Foreign Training

Details of overseas training received by DAPH officers in 2017 are given in *Annex V*.

#### 6.4. Examinations

The HRD division is responsible for conducting examinations for Department officers. Details of examinations conducted by DAPH in 2017 are given in *Annex VI*.

### 6.5.Information and Publicity

### 6.5.1. Publications in 2017

### a. New Prints

Book let	01
Guide line	0

### b. Translated print

Leaflets	0
Booklets	0

### c. Reprints in 2017

Leaflets	03
Booklets	13

### 6.5.2. Sale of Publications in 2017

No. of booklets/leaflets	36,246
No. of photographs (10"x12"	07
size)	
No. of CD's	24

### 6.5.3. Mass Media Activities

The division continued broadcasting/telecasting/publishing programs and articles in various TV Channels/Radio Stations/Newspapers. Details are given in *Table 6.3*.

Table 6.3: Mass Media Activities in 2017

Type of Media	No. of programs (planned)	TV/ Radio Channel/ News paper	No .of Telecasts/ Broadcasts/ Releases
TV	Sinhala - 06	ITN – Ranbimata Arunella	07
	Tamil- 06	ITN (WasanthsmTV)	-
Radio	Sinhala-60	SLBC - Colombo - Sathwarawaya	60
	Tamil-12	SLBC - Colombo - Wannamaradam	12
		Krushi FM WEB Radio	40
News releases	12	News paper	12
Press conference	03	All media	03

### 6.5.4.Exhibitions

Details of exhibition participated in 2017 are as follows.

Table 6.4: Exhibitions conducted / participated in 2017

Category	Venue	No. of Days
Educational	Kengalla Maha Vidyalaya-	2017.01.19
	Kangalla	
Educational & cultural	Kularathna Maha	2017.02.15 -2017.02.18
	Vidyalaya- Godakawela	
National Sports and Physical	DAPH, Gatambe	2017.02.06
Fitness Promotion Day of		
Government and Corporate		
Officers		
Digamadulu Nawodaya	Ampara	2017.03.17 - 2017.03.19
Younpuraya	Tricomalee	2017.03.29 - 2017.04.02
75 anniversaries	Pushpadana Girl's	2017.06.01 - 2017.06.03
	School, Kandy	
Techno - signs 17	Peradeniya Central	2017.06.22 - 2017.06.23
	College, Peradeniya	
Lanka Livestock 17 Exhibition	SLECC,Colombo	2017.07.20 - 2017.07.22
Livestock17 Exhibition	Jaffna	2017.09.19 - 2017.09.23
National Food Production	Gannoruwa	2017.10.09
Program		
Nila Mehewara	Vawniya	2017.10.21

### 6.6. Entrepreneurship Development and Self - Employment support services

The Entrepreneurship development and support Training.

Topic	Venue	No. of Programs	No. of Participants
Small scale	Animal park, Gannoruwa	04	53
milk	Homagama vet. office	01	19
processing	Mahaweli authority office	04	59
	ICE Gannoruwa	03	47
	Rehabilitation camps	02	40
	Welikanda, Vavuniya		
Total		14	218

### **Follow up Technical Training Programs**

Topic	Venue	No. of Programs	No. of Participants
Small scale milk processing	Animal park	01	23
Increasing liquid milk	Colombo	01	30
consumption			
Total		02	53

### 6.7. The Department Library

The Department Library continued serving as the National level Library for Livestock industry related fields and Veterinary Science.

- Purchase of Local and foreign Library Books and Journals: 1807
- Acquisition of print and non-Print Library Materials related to the Livestock and any other allied subject areas :-100%

### 6.8. The Departmental Hot Line Service

The DAPH maintains a Hot Line Service (Tel: 081-2388463) to facilitate stakeholder needs. The details of performances in 2017 are given below.

	Activity	Target	Cumulative
			Progress
01	Registration of clients (on request)	1400	1430
02	Provision of technical Guidance	800	1213
03	Direction clients for training	100	107
04	Coordination with other institution	160	241
05	Direct Advisory	200	210
06	Written Technical Advisory Service for Postal Requests &	24	8
	E mail	2 <del>4</del>	
07	Handling of public Requests / Complaints	60	12
08	Follow up Service to Evaluate Customer Satisfaction	140	143
09	Collection of newspaper articles related on livestock	440	939
10	Directing articles on livestock issues to DG, Directorate &	60	184
	PDs		
11	Distribution of Leaflets - free of charge for Exhibition/	480	3179
	Seminar		

### 6.9.Livestock Technology park

The details of performances are 2017 given below.

Project / Programme	Activity	<b>Expanded Activities</b>	Output	Progress at
			target	the
				end of Year
Establishment of	Demonstrate	Arrange and	12	12
Livestock	model	conduct		
Technology Park	livestock units	demonstration		
	to the public	sessions		
		Facilitation of	1500	32,626
		visitors		

Project / Programme	Activity	Expanded Activities	Output target	Progress at the end of Year
	Development and maintenance	Improving of existing livestock units	100%	100%
	of different units 0f the	Purchasing of required furniture	100%	50%
	Livestock Technology Park	Purchasing of animals(buffaloes, Pigs, Quails, chicken, Cows)	100%	50%
		Purchasing of required furniture	100%	50%
	Development of Infrastructure facilities	Establishment and maintenance of pasture plots	100%	100%
		Preparing of Name boards	100%	100%
		Establishment of Buffalo unit	100%	100%
		Construction of internal road – 300 meters	100%	100%

### 6.10. Financial Progress

The financial allocation for capital and recurrent projects/ activities for the year 2017 and actual expenditure are given below.

	Allocation (Rs.Mn)	Expenditure (Rs.Mn)	Achievement (%)
Capital	43,150,000.00	44,650,000.00	100%
Recurrent	9,165,000.00	15,165,000.00	100%

<sup>\*</sup> Additional Allocation were Provided

### 7. LIVESTOCK PLANNING AND ECONOMICS DIVISION

#### 7.1. Introduction

The Livestock Planning and Economics (LPE) Division is responsible planning, monitoring and evaluation of livestock development programs and activities implemented by Department to support development of the livestock sector in Sri Lanka. LPE division also maintains the national level data base to collect and compile livestock statistics and data which are accessible to the public and to policy makers, researches, university students. The Data Processing Unit is responsible for data entry, analysis and preparation of reports/ documents to the relevant authorities.

### Main functions of the division

- Identification and formulation of livestock development programs and projects;
- Monitoring, evaluation and economic analysis of livestock development programs and projects of the department;
- Conduct economic studies to assess feasibility and viability of livestock development programs and projects;
- Periodic review of livestock industry and identify issues that need to be addressed for policy formulation;

- Management of livestock data base at national level;
- Co-ordinate livestock development programs with provincial DAPH and other state institutions and organizations;
- Coordinate implementation of egovernment policy in the department.

# 7.2. Identification and Designing of Livestock Development Programs and Projects

LPE division is responsible for identification and formulation of livestock development projects and forwarding them to funding agencies. Funding could either be through the National Budget or Foreign Donor Agencies.

### 7.2.1. Projects for the National Budget - 2018

Eight (08) new project proposals for 2018 were formulated in collaboration with respective divisions in 2017. These project proposals were forwarded to relevant authorities.

Furthermore, 20 on-going projects of the DAPH for continuation for coming years were reviewed; proposals forwarded and necessary approvals were obtained.

7.3. Monitoring, **Evaluation** and Economic Analysis of Livestock Development **Programs Projects** 

#### 7.3.1. Physical and financial review of progress Departmental programs

### a. Action plan and progress

Action plan for physical and financial progress review of the DAPH was prepared for the year 2018. The physical and financial progress was monitored and reported monthly on the basis of thrust area.

Capital expenditure utilization of the DAPH was 63.83% in 2017 which was lesser than the previous year (89.40%). progress of recurrent utilization was 95.59% in 2017, which was lesser than the corresponding figure of 99.28% in the year 2016. The details are given in Chapter 10, under the Finance division.

### b. Progress Review Meetings of the department

Physical and financial progress departmental programs is reviewed at progress review meetings represented by respective directors and relevant officers of divisions. LPE division organised and facilitated to conduct such reviews throughout the year.

**Animal** 7.3.2. Monitoring of Production, Health and Extension activities in Provincial DAPH

#### a. Monitoring through Master **Returns**

Activities of Provincial DAPH are monitored through master returns monthly by divisional submitted veterinary surgeons in the country. Data were processed and analysis reports were prepared and communicated to Provincial DAPH as well as all divisions of the DAPH and the Ministry as well.

Analysis of selected data is given in Annex VII. Data on animal health activities are given separately under section on animal health division.

### 7.4. Review of Livestock Industries and Management of Livestock Database at National Level

Availability of reliable statistics is one of the main pre-requisites for any planning and monitoring pertaining to livestock sector. This is also one of the main responsibilities of the Division.

### 7.4.1. Data Collection, Compilation and Management

Data collection systems have been further improved during the year. Data on livestock population, production, prices, imports and exports etc. were Industry- basis. collected on The data are preserved analyzed electronic livestock statistics databases.

Document on ten year livestock data has been updated.

### a. Milk Collection

Data were collected from leading milk processing organizations in the formal milk marketing in the year 2017. Total milk collection by 14 key organizations was 283.12 million litres. Central Province, North Western Province and the North Central Province contributed for this total as 30.6%, 18.6% and 16.8% respectively. District—wise milk collection data for the year 2017 is given in *Annex VIII*.

# b. Import and export of animals/animal products and feed ingredients

Quantities and the value of import of animals, animal products and feed ingredients in 2017 was obtained from Sri Lanka Customs and analyzed. Quantities of Dairy products, Meat and Meat products imported into the country in 2017 is totaled 99,593.43 MT and 919.50 MT with the value of Rs.36.34 billion and Rs.449.6 million respectively. Imported quantity of Dairy products has been increased, imported quantity of meat products decreased during the year 2017 when compared with the year 2016.

Total of 839.61 MT of milk and milk products and 1567 MT of meat and meat products have been exported to other countries during year 2017.

#### b. Data Bank

LPE division maintains the National databank containing all livestock data, statistics and related documents, reports, and bulletins which can be used by DAPH and other state officers, students from University and other educational institutes, and private entrepreneurs.

### c. Dissemination of data/statistics

Important livestock statistics collected from organizations, various other divisions of DAPH, regional veterinarians, private companies, farms, etc., by division of LPE, are analyzed, compiled and published as Livestock Statistical Bulletin and Livestock outlook for the year 2016. It was disseminated to all the relevant organizations and other stakeholders in 2017. A total of 141,384 website users were reported in 2017.

### d. Sector Reviews

### **Poultry Industry Monitoring**

A poultry industry monitoring committee was established in the department to monitor the poultry industry in Sri Lanka in year 2012. This committee is consisted of industry representatives and officers from the department as well. Department of Agriculture is also representing the meeting to facilitate and overcome the issues related to poultry industry. This committee was chaired by the Director General of the Department. Many issues have been addressed during the year 2017 three such meetings and (3)were

conducted. In addition to main committee meeting three (3) stakeholder meetings and several other technical meetings were conduct to address the issues faced by the industry.

### 7.5. Coordination of Development Programs with Provincial DAPH and special development projects

Several development programs jointly implemented by the National and Provincial DAPH and technical back-up services and inputs were mostly provided by the National DAPH.

### 7.5. Provincial Director's Meetings

LPE division organizes and coordinates Provincial Director's meetings to review on-going livestock development discuss programs and to on administrative and financial matters. Three (05) such meetings were held during the year 2017.

### 7.5.1. Special Livestock Development **Projects**

#### a. Improvement of Veterinary Service Delivery System of Field **Veterinary Offices**

A project to improve services provincial veterinary offices commenced in year 2008 aiming at improving infrastructure facilities of veterinary offices.

Construction works of three (03)veterinary offices were continuing from 2016 Sabaragamuwa Province (Deraniyagala), Southern Province

(Lunugamwehera) and Eastern Province (Trincomalee).

Construction of four (04) veterinary offices started in 2017, in Southern Province (Pasgoda), Eastern Province (Kaluwanchikudy), North CentralProvince (Aralaganvila) and Sabaragamuwa Province (Ayagama).

work Construction of (01)one veterinary office in Sabaragamuwa Province (Deraniyagala) was completed in the year 2017.

#### b. Programme Mitigate to **Environment Issues Pertaining** to Livestock Industry

To address the environmental issues pertaining to the livestock sector a technical backup system was developed and it had been given positive results over the years. Since the environmental issues are one of the constraints which hinder the development of the sector, it has been given the priority as previous year: accordingly following activities were conducted and implemented by Livestock Planning and Economics Division of the Department in year 2017.

- Based on the nature of the environmental problems reported, other organization, institutions and relevant officers were informed coordinated. Follow-up and activities of the issues addressed were also done.
- Joint field visits were organized with respective technical experts from relevant institutions, alone

with the respective veterinary surgeons and provided necessary guidance and advised them to overcome the issues prevailed. The joint visits were participated officers form Central Environmental Authority, Ministry Health. Local government and Sri Lanka Police

- According to the requests made by the provinces, resource persons were provided to conduct trainings for field staff on livestock management environment law and regulations. Training programmes which were conducted for field staff Continual Education Centre of the Department were included field visits and on farm practical sessions.
- Swine Development programme which being conducted by the Livestock Ministry was technically supported by experts of the department. This programme was supported farmers in Western and Northwestern provinces by giving them 50% subsidy to develop their farms as Eco-friendly farms units for the province.

### 7.6. Publications

division compiled following publications/reports during the year 2017.

- Action Plan DAPH 2018
- Physical Financial and Monitoring Plan DAPH - 2017
- Annual Report 2016

- Monthly physical and financial Progress Reports of DAPH
- Budget Report DAPH, Progress for 2017 and Plans for 2018
- Livestock Development Projects -2018
- Statistical bulletin
- Action Plan 2018 LPE Division
- Poultry Sector Forecast
- Dairy Bulletin
- Livestock Outlook

### 7.7. Other Activities

### 7.7.1. E -Government Programme

Livestock Planning and Economics Division (LPE) is responsible to liaise with **ICTA** and to handle correspondences regarding Lanka Government Network (LGN) and Government Information Centre (GIC). Dr. K.D. Ariyapala of the LPE division serves as a Chief Innovative Officer (CIO) for ICTA.

The LPE division holds the responsibility of managing and updating the department website www.daph.gov.lk. Livestock data, statistics, maps, departmental activities and details of each division have been incorporated into the web site. Regular updating of news and the events of the department is a valuable feature in the department web site. By the end of the year number of web users have become increased remarkably which has been calculated automatically as 387 users per day. The online application service (eservice) for import and export of animals is also an additional service provided by the department web sit

### 7.8. Financial Progress

The financial allocation for capital and recurrent expenditure for the year 2017 and actual expenditure as given below:

	Allocation (Rs. Mn.)	Expenditure (Rs. Mn.)	Achievement (%)
Capital	126.68	32.90	25.97%
Recurrent	1.43	0.57	40.21%

### 8. VETERINARY REGULATORY AFFAIRS DIVISION

#### 8.1. Introduction

Implementation of statutes made under the provisions of Animals Act, Animal Diseases Act and Animal Feeds Act are handled by the Veterinary Regulatory Affairs (VRA) division.

### Main Functions of the Division

- Strengthen/Improve Animal Quarantine management system in Sri Lanka to prevent entry of exotic animal diseases/illegal imports.
- Trade facilitation of import and export of animals and animal products of animal origin and other inputs.
- Quality assurance of processed, further processed poultry meat, frozen fish, animal feed ingredients, veterinary drugs and biological / products.
- Safeguard and protect productive national herd to accomplish a traceability system and to achieve objectives of the Master Plan.

### 8.2. Animal Quarantine and Inspection Service

# 8.2.1.Import of Animals, Animal Products and By Products and Post import Quarantine Activities

Animal Quarantine service is one of the essential services provided by the DAPH. It mainly deals with the

inspection and quarantine of import and export of animals, animal products and by-products.

### a. Quarantine Holdings

Large animals, Zoo animals, Pet birds and animals, Ornamental fish were subjected quarantine holdings at AQS (Colombo, Katunayake) are own farms during the year 2017.

### b. Import and Quarantine Surveillance

Details of consignments that were subjected to quarantine surveillance in 2012 are given in *Annex IX*.

### c. Sampling of Imported Poultry (HPAI surveillance programme)

Consignments of Day-Old Chicks (DOC) are released to importers under the quarantine surveillance agreement and monitored by the weekly reports sent by the importer. Serum samples and cloacal swabs are taken at the point of entry and during the farm inspections. When mortality is above four (04) percent, the relevant farm/s were visited by AQO's immediately to investigate and to rule out the possibility of HPAI infection.

As part of the active surveillance programme carried out against HPAI, imports were closely monitored clinically and laboratory testing was done during the surveillance period. (*Table 8.1*)

No of farm visits - (2017) No. of samples dispatch to Test results lab.(2017) (2017)Animal Quarantine Station-Colombo DOC-10 Negative Cloacal swabs-300 Serum samples-200 Negative Macaw-01 Faecal samples-40 Negative Animal Quarantine Station Katunayake Cloacal swabs-3,120 Negative Day old chicks -44 Serum samples-950 Negative (Samples Negative tested for salmonella - 395)

Table 8.1: HPAI Surveillance Programme - Laboratory test results - 2017

### d. Consignment Detained/ Destroyed/ Re-exported in the Year 2017

Details of consignments of Animals, Animal Products and Animal By-Products that were not allowed to enter into the country in 2017 due to non-conformity with our import health requirements are given in *Annex XI*.

### 8.2.2.Export of Animals, Animal Products and By Products

### a. International Veterinary Health Certificates for Meat

Details of export Health Certificates issued by the Chief Animal Quarantine Officer (CAQO) in 2017 are given in *Table8.2*.

Table 8.2: Health certificates issued for export (2017)

	<u> </u>	
Item	No. of Health Cer	rtificates issued
	2016	2017
Ornamental fish	3,131	3,042
Dogs	164	163
Cats	56	97
Poultry -DOC	56	46
Hatching eggs	07	-
Pet birds	15	27
Zoo animals	-	-
Elephant	-	-
Rabbit/Rat/Hamsters/G. Pig	-	-
Animal Products (Meat & meat products)	4,004	3,414
Table eggs	1,300	1,354
Animal by-products	44	47
Leather	23	20

### b. Exports

Details on consignments of Animals, Animal Products and Animal By-Products that were subjected to animal quarantine inspections and approved for export are given in *Annex X*.

### 8.3. Regulatory Activities Livestock Industry

The VRA division facilitates international trade in animals and animal products and animal by products through review and recommendations of request for imports.

### a. Poultry

The regulatory activities carried out in 2017 in related to poultry industry are given in *Table 8.3*.

Table 8.3: Regulatory activities carried out in 2017

Activity	Description	Number
Registration	Registration of new breeder farms	Broiler - 4
	Registration of new hatcheries	ī
	Registration of new processing centers	2
Registration of	Renewal of breeder farms	Broiler - 32, Layer - 11
Renewal	Renewals of hatcheries	43
	Renewal of Grand Parent farms	3
	Renewal of processing centers	13
	Renewal of further processing centers	9
Facilitation of imports	Issuing pre clearance approvals(No. of consignments)	201
	Revision/ preparation of import health requirements	2

### b. Other animals, animal products and animal by products

Regulatory activities carried out during the year 2017 in respect to livestock and livestock products are given below.

**Issue Pre-clearance Approvals** 

Activity	No. of Applications received	Number Approved	Number of animals/ Quantity
1. Live animals			
Pets-dog & Cats	312	298	408
Horses	05	05	37
Rabbits	01	01	02
Live Fish	55	55	55 (Number of
			consignments)
2. Genetic Material (Semen)			
Cattle	08	08	10,544 Doses
Buffalo	01	01	2,500 Doses
Pig	02	02	600 Doses
3. Animal Products			
Meat and Meat Items	160	160	14,296.86 MT
(Beef/ Mutton/ Edible Fat/	1,155	1,155	
Tallow)			
Frozen Fish			
4. Animal By products			
Fur/ Wool/ Hair/ Bristles	89	89	76,857.09 MT
Lather	132	132	

### 8.4. Veterinary Drug Control Authority

Veterinary Drug Control Authority (VDCA) was promulgated under the provision of the Animal Disease Act No. 59 of 1992 and related regulation. VDCA has responsibility regulating the of manufacture, import, re-packing, export, marketing and use of veterinary pharmaceutical and biological products to safeguard human and animal health in Sri Lanka. VDCA committee members for the year 2017 and their fields of expertise as stated below.

- 01. Dr. A Sivasothy Chairman (January 2017)
- 02. Dr. R.M Ariyadasa Chairman (February- December 2017)
- 03. Prof. S.P. Guneratne Nutrition
- 04. Dr. D.D.N.De Silva Pharmacology
- 05. Dr. A. Arulkanthan Parasitology
- 06. Dr. Anil Pushpakumara
  Reproduction

- 07. Dr. S. Samarakoon Clinical Practice
- 08. Dr. H. Kothalawela Microbiology
- 09. Dr. W. Samarasinghe Special member represents Local manufactures
- 10. Dr. C.G. Wijesinghe Registrar (Actg.)

Nine committee meetings of VDCA and Thirteen User Permit Panels were conducted during this year. During the year, sixty-six (66) authorized officers were appointed for Pharmacovigilance activities. Registration guidelines and applications were amended in 2017. Information related to the VDCA (registration procedure, reporting system, registered products etc.) was published in the DAPH website.

### a. New products registered in VDCA

New pharmaceuticals and biological products registered in 2017.

Details are as follows;

### **Imports for Free Sales**

Antibiotic	Injectables	09
	Sprays	01
	Oral preparations	03
Antiparasitic	Ectoparasitics	02
	Endoparasitics	05
Anelgesics		01
Vaccines	Poultry	10
	Bovine	01
Supplements	Vitamins & Minerals	03
Hormones		01
Shampoos/Deodorants		04
Antacids/Antibloat agents		02
	Total	42

### **Local Manufacture for Free Sales**

Anthelminthics	Oral	01
Antibiotics	Oral	02
Anticoccidials	Oral	01
Acaricides	Spot on	02
Shampoos		02
	Total	08

### b. Invoice Approvals

During the year 514 invoices were approved by VDCA, to import veterinary pharmaceuticals and biological products for the worth of 1,715.33 Million Sri Lankan rupees.

### c. User Permit Approvals

Species	Category	Issued
Poultry	Vaccines	46
	Montanide ISA (for vaccine	02
	manufacturing at VRI)	
Fish	Vaccines	01
	Hormones	01
Horses	Anesthetics/Sedatives	01
	Hoof oils	01
	Anti-inflammatory solutions	01
	(Liniment)	
	Insecticidal	02
Cattle	Vaccines	04
	Antibiotics (for manufacturing of	02
	intramammary infusions at VRI)	
	Hormones	01
Feline	Vaccines	01
	Hormones	02
Wild Animal	Antidotes	01
	Sedatives/Anesthetics	01
Swine	Hormone	01
	Total	69

### 8.5. Implementation of Animal Feed Act

Under the provisions of Animal Feeds Act, No.15 of 1986 and its regulations, the Animal Feed Advisory Committee (AFAC) has been established to exercise control over the manufacture, import, export, sale and use of animal feeds in order to ensure the quality at the local market.

Following members functioned as the members of AFAC in 2017.

1. Dr. (Mr) R.M.Ariyadasa - Director General

- 2. Prof. S.S.E. Ranawana Expert
- 3. Dr. K. Samarasinghe Senior Lecturer, Faculty of Agriculture University of Peradeniya.
- 4. Dr. N. Priyankarage Veterinary Research Officer, Head - Animal Nutrition Division, Veterinary Research Institute – Peradeniya.
- 5. Mr. P. Maheshwaran Industry representative
- 6. Dr. (Mrs.) V.R.N. Munasinghe Registrar Animal Feed

The details of activities performed during the year are as follows:

### a. Renewals/ new licenses for Animal Feed

Activity		Number of	
			products
Renew	al of animal	feeds	1,746
New licenses issued;			
For	Animal	feed	53
Manufacture			
For	Animal	feed	259
Impo	rts		

### b. Collection of Turn over Returns

Table 8.4: Compound animal feed production by type: 2016 - 2017

Type of	Quantity	Quantity
Feed	2016 (MT)	2017 (MT)
Poultry	620,310.65	675,187.51
Feed	620,310.63	
Cattle Feed	33,997.06	50,272.01
Calf Feed	6,854	1,011.50
Pig Feed	2,263.93	1,140.36
Fish Feed	344.18	693.90
Horse Feed	464.35	246.50
Goat Feed	119	93
Other Feed	146.02	1,230.89
Total feed	664,499.19	730,515.68
production	004,477.17	750,515.00
Self-mixed	413,540.44	450,125
Total	1,078,039.63	1,910,516.35

<sup>\*</sup> Source: TOR -2017 (by Registered Animal feed manufacturers)

Animal Feed Premixes manufactured in 2017 was 29,418.02 MT.

### c. Usage of Raw Materials

Details of the raw materials used by the registered feed manufacturers are given in *Annex XII*.

Table 8.5: Poultry feed production by category (2016 - 2017)

Type of poultry Feed	Quantity	Quantity
Type of pounty from	2016 (MT)	2017 (MT)
Chick Starter	8,755.53	31,255.79
Layer Grower	16,690.66	24,364.51
Layer	67,158.08	105,756.32
Total Layer Feed	92,604.27	161,376.63
Broiler Starter	168,891.95	123,043.07
Broiler Finisher & Grower	290,433.86	311,779.54
Total Broiler Feed	459,325.81	434,822.61
Broiler Breeder	48,361.12	64,792.35
Layer Breeder	20,019.45	17,195.91
Total Breeder Feed	68,380.57	81,988.26
Total Layer Feed	92,604.27	161,376.63
Total Broiler Feed	459,325.81	434,822.61
Total Breeder Feed	68,380.57	81,988.26
Total Poultry Feed	620,310.65	678,187.50

<sup>\*</sup> Source: TOR - 2017 (by Registered Animal feed manufacturers)

# d. Implementation of BSE regulations on Animal feed imports

Screening verified and approval was given to import 26,555MT of Meat and Bone Meal from the countries which were declared as Bovine Spongiform Encephalopathy free countries.

### e. Export of Animal feed

Vitamin and Mineral premixes and Vitamin E were exported to the south Asian countries by two large scale premixing manufacturers and two small scale manufacturers. Total number of Veterinary Export certificate issued 636, Total quantity exported 29,258.02 MT as

powder form and 70,000 Liters as liquid form.

### 8.6. Animal Identification and Traceability Programmed

Necessary inputs (70,350 Ear Tags, 42,500 Cattle Vouchers, and fuel to implement the program at filed level) were provided to the provinces to facilitate implementation of this programme. A total of 120,196 cattle were ear tagged during the year 2017.

### 8.7. Financial progress

The capital and recurrent financial allocation and expenditure for the year 2017 are as follows.

	Allocation (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	26.20	20.79	79.34%
Recurrent	4.7	4.00	85.10%

### 9. ADMINISTRATION DIVISION

#### 9.1. Introduction

The main responsibility of this division is managing staff cadre and supporting employees services to achieve objectives of the Department.

#### Main functions of the division

- Attend to establishment matters related to all staff of the Department of Animal Production and Health.
- Handling correspondences regarding implementation of Service Minutes of technical services of DAPH.
- Attend to matters regarding the pensions/ loans/ quarters/ lands/ Agrahara scheme and legal issues of the department.
- Handling correspondences regarding recruitments, promotions, transfers and appraisals of the staff.
- Office Management.

### 9.2. Present Cadre Positions of the Department

The approved cadre present positions divisions (Animal of Health, Animal Breeding, Veterinary Human Research, Resource Development, Livestock Planning and Economics, Veterinary Regulatory Affairs, Administration and Finance) of the department amounted to 946 and actual cadre position was 762 (Project I: 197 Project II:323 and Project III: 242). Details of cadre positions are given in the Annex XIII.

#### 9.3. Approval from the **Management Service**

New cadre positions has not been by approved the Management Services Department during the year 2017.

### 9.4. Appointments

Officers have been appointed to permanent appointments following posts;

Director General - Dr. A. Sivasothy (from 02.01.2017 to 25.01.2017)

Director General - Dr. W.A.N. Wedasinghe (from 29.12.2017)

Officers have been appointed to cover up and acting the duties of following posts;

Director General (acting) - Dr. R.M. (from 16.02.2017 Ariyadasa 29.12.2017)

Following new appointments were made during the year 2017.

Electrician - 01 Field Assistants - 05 Livestock Assistants - 08 Technical Officer - 02 Draftsman - 01 Drivers - 07

### 9.5. Promotions

Promotions given during the year are as follows;

AP&HS Special Grade - 05 Veterinary Surgeons - 21 Livestock Officers (AP&HS Class II) - 03 Development Officers - 02

#### 9.6. Transfers

Details of transfers made to and from the DAPH are stated below; Transfer to DAPH - 14 Transfer from DAPH - 20

### 9.7. Retirements

Details of staff members who have retired from the service in 2017 are as follows;

Veterinary Surgeons	03
Livestock Officers	02
Research Officer	01
Engineering Service	01
Livestock Development Officers	04
Librarian	01
Research Assistants	02
Technical Officer	01
Laboratory Assistant	01
Public Management Assistant	01
Drivers	04
Field Assistant	01

### 9.8. Resignations

The number of resignations in the year 2017 as follows:

Veterinary Surgeon - 01 Veterinary Research Officers - 01 Field Assistant - 01 Livestock Assistants - 01

### 9.9. Vacation of Post

Veterinary Surgeon - 02 Veterinary Research Officers - 02 Field Assistant - 01 Livestock Assistants - 01

Releases to another position - Development Officer - 01

### 9.10. Releases from the DAPH on permanent basis

There were no releases from the DAPH on permanent basis during the year 2017.

### 9.11. Loans Approved

Type of loan	No.	Amount (Rs.)
Distress Loan	200	19,741,179.00
Vehicle loan	02	17,181,000.00
Property Loan	09	3,434,000.00

### 9.12. Insurance Payments

During the year, 117 applications were approved for "Agrahara" insurance scheme.

### 9.13. Financial Progress of the division

The capital and recurrent financial allocation and expenditure for the year 2017 are as follows:

	Allocations (Rs. Mn)	Expenditure (Rs. Mn)	Achievement (%)
Capital	8.75	1.37	15.75
Recurrent	10.97	0.77	7.05

### 10. FINANCE DIVISION

### 10.1. Introduction

The Departmental Head pertaining to the financial activities for the year 2017 was 292. The activities of department were performed under two (02) Programs and three (03) projects. Financial allocations and expenditure summary for the year 2017 are as in Annex XVI.

A sum of Rs. 535.71 million for the recurrent expenditure and Rs. 626.50 million for the capital expenditure was received by the Department for the year 2017, totaling Rs. 1,162.21 million.

### 10.2. Allocations

### a. Departmental Allocations

Head: 292

	Estimated allocation (Rs.)	Supplementary allocation received from the Treasury (Rs.)	Net allocation (Rs.)	Expenditure (Rs.)	Percentage of the expenditure
Recurrent (Rs.)	515,710,000	20,000,000	535,710,000	512,072,538	95.59%
Capital (Rs.)	626 ,500,000		626,500,000	399,887,510	63.83%
Total (Rs.)	1,142,210 ,000	20,000,000	1,162,210 ,000	911,960,048	78.47%

### Allocations received from other Ministries and Departments

Vote	Allocation (Rs.)	Expenditure (Rs.)	Percentage of the expenditure
154-2-5-35-2506	9,750,000	5,797,312	59.45%
154-2-5-33-2506	7,000,000	959,742	13.71%

### 10.3. Public Servants' Advance Account "B"

	Limits of the Annual Estimates	Actual Value
Balance carried forward		75,872,471.39
Maximum debit limit	32,000,000	34,290,786.30
Minimum credit limit	21,000,000	29,008,839.65
Maximum limit of the debit	120,000,000	
balance		
	Credits not affecting the limits	5,479,983.16
	Balance brought down	81,154,418.04

Finance Division 55

### 10.4. General Deposit Account

The balance of the General deposit account of the Department as at 31.12.2017 was Rs. 18,489,936.38

### It was prepared as follows:

```
6000/0000/00/0001/0110/000-
                                970,875.46
6000/0000/00/0013/0106/000-
                               6,107,262.99
6000/0000/00/0016/0098/000- 10,404,399.93
6000/0000/00/0002/0153/000-
                               1,007,398.00
```

### 10.5. Departmental Income

The income received by the Department for the year 2017 is given in *Table 10.1*:

Table 10.1: Departmental income - 2017

Income Subject No.	Particulars of the Income	Total income Received
		(Rs.)
2002-01-01	Rent	5,586,876.45
2002-02-99	Loan interest	3,291,100.57
2003-01-00	Departmental sales	47,297,878.45
2003-02-99	Other	4,257,082.92
2003-99-00	Other receipts	1,192,802.39
2002-01-99	Other Rent	32,700.00
	Total	61,658,440.78

Rs. 851.30 million was obtained from the Treasury for the activities of the department and Rs. 61.66 million received as income, miscellaneous revenue and there was no balance.

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### 11. FOREIGN FUNDED PROJECTS

#### 11.1. Project on "Promotion **Feeding Appropriate Techniques** to **Exploit** Productivity in Dairy cattle" TCP/SRL/3501

FAO funded two project year TCP/SRI/3501 initiated its activities in Sept., 2014 with the aim of promoting feeding techniques to ascertain right level of nutrition for the high milking cows to exploit their inherent production potential. This pilot project implemented in Ampara, was Moneragala, Polonnaruwa, Kurunegala and Galle districts. FAO and DAPH worked collaboratively under a Letter of Agreement (LOA) and it was effective from 16.08.2016 to 30.04.2017. This project was terminated at the end of August, 2017.

#### **Lessons Learned - elements of success**

- Farmers prefer perennial fodder over annual fodder varieties because it doesn't require regular cultivation. Preference is more on Sorghum over maize because of its ration crops yield. When feeding sorghum, only leafy parts are fed whereas stems (having more stored food) are thrown away. This improper practice was corrected by promoting use of chaff cutters.
- Farmers owning large extent of lands with irrigation were more successful in applying fodder business model
- Heifers/Cows in loose-barn system come to heat early and demonstrate

- clearly than their heat sign counterparts in confinement
- Use of dairy buffaloes is not common mainly due to lack of suitable animals and lack of buffalo husbandry exposure. Huge potential exist for dairy buffalo development
- Impact of Project interventions have been masked with the lack of facility for evening milking
- Training and practical demonstration on machine milking and maintenance of milking equipment under hygienic condition are required in mass scale
- Milking animals standing on the concrete floors are utterly uncomfortable than standing on soil floors. Rubber mats for standing space encouraged
- Power driven Chaff cutter helps to feed any coarse roughage and promote mixed feeding. Therefore, concession to buy is encouraged
- Effect of climate change shifted rains from cultivation monsoon seasons resulting long dry spells. Feed available for feeding cows are only the agro-by products of much deteriorated quality. Therefore, supplementing this poor quality feed with protein, mineral and energy sources is a must. Incorporating leguminous tree fodder would support to heel the situation but most appropriate way of tackling the problem is to provide urea-molasses multi-nutrient block. However, there are limitations in procuring molasses but government agencies should interfere to make the process easy.

- Field level extension link to the tail end beneficiary not strong enough and effective motivation means have to implemented .Effective monitoring of the progress incorporated interventions should be backed by a regular follow-up.
- Practice of TMR feeding hinders due to lack of nutritional information on farmer accessible feed ingredients. VRI has to play a major role.
- Proportion of women and holding leadership, dairy income /spent, participating handle decision making in dairy related activities, not common except for hard labor
- Consumption of dairy products from own dairy is very rare and needs extensive promotion value on addition
- Milk collecting center / Milk Co-op is the field level organization that can track the dairy farmers for monitoring & follow-up
- Consumption of dairy products from own dairy is very rare and needs extensive promotion value on addition
- Permanent and user-friendly animal identification method is essential as the current ear tagging method is not effective

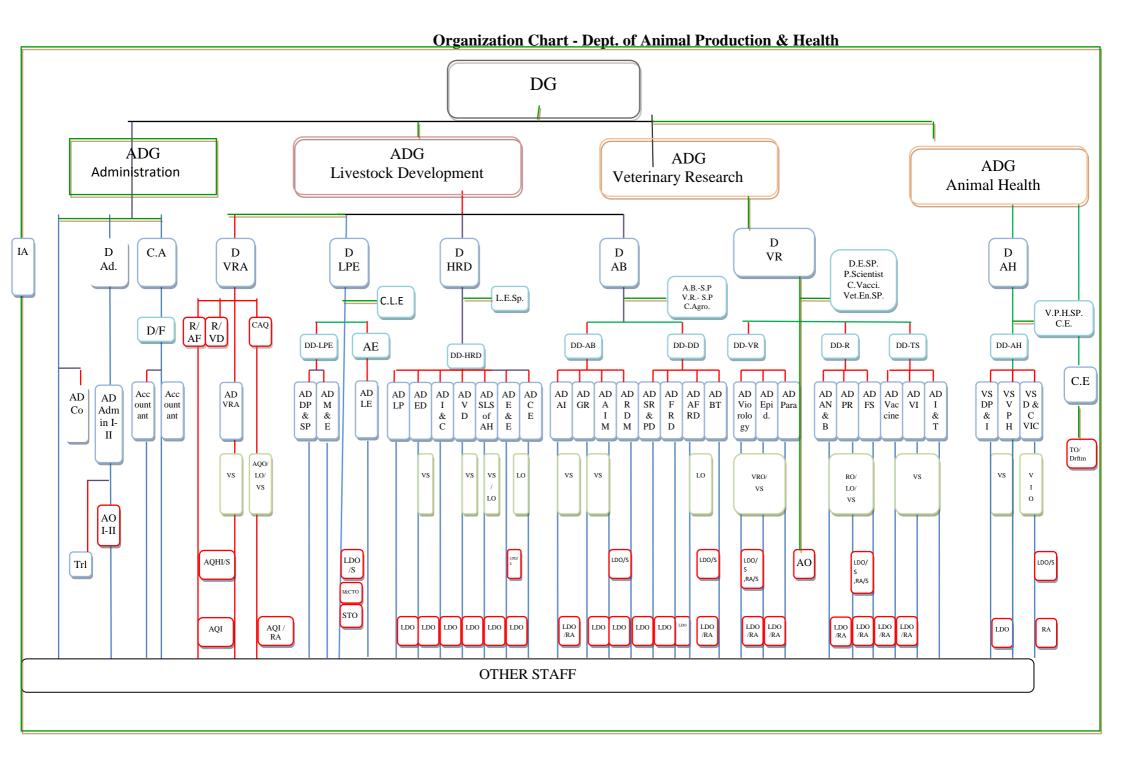
 Level of reduction of carbon footprint related to dairy husbandry needs attention

### Key messages derived from the project

- Nutritionally balanced feeding is a prerequisite if to exploit inherent genetic potential of the dairy cattle. Therefore, data and related information on feed ingredients and ration balancing tools should be comfortably accessible.
- Market for evening milk have to be assured for improving productivity of cows
- Sustainability of the project interventions could be ensured through development of business model
- Extension training programs should not only to the be cover communication aspect. It should follow up with assessing behavioral changes in farmers for adoption. This requires continuous and strong technical backup visits to farmers after training. Once trained, farmers should not be left alone on their own and make frequent revisits. When farmers encounter technical problems associated with project interventions, there should be support extension staff to cooperate with the farmers

### **Annexures**

Annex I	Organizational Structure of the DAPH
Annex II	Key Data on the Poultry Industry (2016–2017)
Annex III	Activities Performed at Veterinary Investigation Centers - 2017
Annex IV	Research Publications in 2017
Annex V	Names of Officers Attended Overseas Training/ Meetings/ Workshops/
	Visits - 2017
Annex VI	Details of Examinations Conducted in 2017
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Annex VIII	Milk Collection by Main Milk Collecting Organizations – 2016 - 2017
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Annex XIV	Financial Allocations and the Expenditure Summary - 2017



DG	Director General -	C.E.	-Civil Engineer	AD-CE	- Assistant Director, Continuing Education
DO	Dept of Animal Production and Health	DD-HRD	- Deputy Director, Human Resource	AD-CE	Assistant Director, Continuing Education
ADG	- Additional Director General	DD-IIKD	Development	AD-AI	- Assistant Director, Artificial Inseminations
D/Ad	- Director, Administration	DD-AB	- Deputy Director, Animal Breeding	AD-GR	- Assistant Director, Genetic Resources
C.A	- Chief, Accountant	DD-AB DD-DD	- Deputy Director, Animal Breeding  - Deputy Director Dairy Development	AD-GR	- Assistant Director, Genetic Resources
D/F	- Director, Finance	DD-DD DD-VR		AD-GR	- Assistant Director, Genetic Resources
D/F D/VRA `		DD-VR DD-R	- Deputy Director Veterinary Research	AD-AIM	- Assistant Director, Artificial Insemination
D/VRA D/LPE	- Director, Veterinary Regulatory Affairs	DD-K DD-TS	<ul><li>Deputy Director Research</li><li>Deputy Director Technical Research</li></ul>	AD ANN	Monitoring
D/LPE	- Director, Livestock Planning and		• •	1 D DD14	
D/HDD	Economics	DD-AH	- Deputy Director Animal Health	AD-RDM	- Assistant Director, Reproductive Diseases Management
D/HRD	- Director, Human Resource Development	IA AD G	- Internal Auditor		-
D/AB	- Director, Animal Breeding	AD-Co	- Assistant Director, Coordinating Service	AD-SR & PD - Assistant Director, Small Ruminants a Poultry Development	
D/VR	- Director, Veterinary Research	AD-Admin	- Assistant Director, Administration		Founty Development
D/AH	- Director, Animal Health	AD-VRA	- Assistant Director, Veterinary Regulatory	AD-FRD	- Assistant Director, Farm Resources
C.L.E	- Chief Livestok Econom	L D D D G D	Affairs		Development
L.E.Sp.	- Livestock Extension Specialist	AD-DPSP	- Assistant Director, Development Planning	AD-VI	- Assistant Director, Veterinary Investigation
A.B.SP.	- Animal Brerding Specialist		and Special Projects		
V.R.SP.	- Vet Reproduction Specialist	AD-M&E	- Assistant Director, Monitoring	AD-PR	- Assistant Director, Pasture Research
C.Agro.	- Chief Agronomist		and Evaluation	AD-AFRD	- Assistant Director, Animal Feed Resources
D.E.SP.	- Dairy Engineering Specialist	AD-LE	- Assistant Director, Livestock Economics		Development
P.Scie.	- Principal Scientist	AD-LP	- Assistant Director, Livestock Promotion	AD-BT	- Assistant Director, Base Technology
C.Vaccin	- Chief Vaccinologist	AD-ED	- Assistant Director, Enterprises		rissistant Birector, Base Teennology
V.In.SP.	- Vet Investigation Specialist		Development	AD-Virology	- Assistant Director, Virology
V.P.H.SP.	- Vet Public Health Specialist	AD-I&C	- Assistant Director, Information and	AD-Epid	- Assistant Director, Epidemiology
C.E.	- Chief Epidemiologist		Communication	Lpiu	rissistant Director, Directmology
R/AF	- Registrar Animal Feeds	AD-VD	- Assistant Director, Veterinary Diffusion	AD-Para	- Assistant Director, Parasitology
R/vd	- Registrar Veterinary Drugs	AD-SLSAH	- Assistant Director, Sri Lanka School of	AD-AN&B	- Assistant Director, Animal Nutrition and
CAQ	- Chief Animal Quarantine Officer		Animal Husbandry	AD-ANCD	Breeding
DD-LPE	- Deputy Director Livestock Planning and	AD-E&E	- Assistant Director, Examination and	1. D. D.D.	
	Economics		Evaluations	AD-PR	- Assistant Director, Pasture Research
AE	- Agri Economist			AD-FS	- Assistant Director, Farming System
		11			

AD-Vaccine	- Assistant Director, Vaccine
AD-VI	- Assistant Director, Veterinary Investigation
AD-I&T	- Assistant Director, Information & Technical
AD-DP&I	- Assistant Director, Disease Prevention & Information
AD-VPH	- Assistant Director, Veterinary Public Health
AD-D&CVIC	- Assistant Director, Diagnostics & Coordination of veterinary Investigation centers
Engineer-Civil	- For maintaining Unit
VS	- Veterinary Surgeon
AQO	- Animal Quarantine officer
LO	- Livestock officer
STO	- Statistical Officer
І&СТО	-Information & Communication Technical Officer
VRO	- Veterinary Research Officer
RO	- Research officer
VIO	- Veterinary Investigation Officer
AO	- Administrative Officer
Trl	- Translator
LDO/S	- Livestock Development officer/Special

RA/S - Research Assistant/Special

TO - Technical Officer

Drftm - Draftman

LDO - Livestock Development officer

RA - Research Assistant

### Other Staff

Associate Service Officers

Management Assistants

Primary Grade Staff

### **Key Data on the Poultry Industry (2016-2017)**

Activity	2016	2017	Growth
1. Procurement of Grand Parent and Parent stock			
Grand Parent Stock (Broiler)	20950	33136	58.17
Parent Stock('000)			
Broiler	1377.41	1299.56	-4.49
Layer	117.55	108.08	-8.06
2. Production of Day - Old Chicks(m)			
Broiler	130.15	148.84	14.36
Layer	7.88	9.76	23.86
3. Production of Poultry Feed (MT)			
`4. Export of Poultry Products			
Day- Old Chicks	250919	238165	-5.08
Chicken and Chicken Products (MT)	124.70	149.05	19.53
Table Eggs	4092854	4600624	12.41
Hatching Eggs	68940	24840	-63.97
5. Import of Poultry Products	<u>l</u>		
Chicken and Chicken products (MT)	305.66	295.52	-3.32
Egg Products (MT)			
Egg Powder/Egg Albumin	8.78	5.50	-37.36
Liquid Egg	54.63	82.04	50.18

### **Activities Performed at Veterinary Investigation Centers- 2017**

Programme	Activity	Total
1. Disease Investigation	1.1 Field Investigation	359
in the field	1.2 Sample collection for testing	2,976
	1.3 Investigation Reports	280
	1.4 Follow-up / further investigation	130
2. Laboratory Service for	2.1 Post-mortem examinations	
disease diagnosis	- Poultry (No. of birds)	4,094
U	- Other Species	289
	2.2 Testing of samples	
	- Bacteriological (Culture)	5,510
	- ABST	2,516
	- Parasitological - Blood	8,719
	- Fecal Sample	2,516
	- Skin	62
	2.3 Milk analysis (including PPRS)	18,369
	- CMT on request	5,208
	2.4 Samples dispatch for further testing	1,960
3. Vaccine Production	3.1 CPD Vaccine (No. of farms)	103
& Vaccination	3.2 Wart Vaccine (No. of Animals)	556
a vaccination	3.3 Babesiosis Vaccine ( No. of Animals)	1,708
4. Supply of lab. Inputs to	5.5 Bubesiosis vaccine (140. of Filinitals)	1,700
Veterinary Offices	4.1 CMT reagent (Litre)	342
vetermary offices	in chiri reagent (Entre)	012
5. Dairy Farm Health Improver	n 5.1 New farm registration	316
Project	5.2 No. of Total Registered Farm	1,997
	5.3 Farm Visited	2,335
	5.4 Mastitis screening (CMT)	16,930
	5.5 milk sample testing (ABST)	1,413
	5.6 No. of sample tested for Helmenthiosis	6,465
	5.7 Teat dip solution issued (L)	4,635
	5.8.Issuing of Udder infusion vials (free issue)	14,295
	5.9.Issuing of Udder infusion vials (for payment)	6,437
6. Brucellosis control	6.1 Screening dairy herds (MRT)	1,734
Programme	6.2 Animal screening in suspected herds (RBPT)	1,856
8	6.3 No. of samples submited for CFT	608
	6.4 Vaccination of Animals S19	5,603
	7.1 No of Breeder farm to be monitered	53
7. Salmonella Control	7.2 No of Breeder farm visits	113
Programme	7.3 No of birds tested	30,728
8	7.4 No of hacheries to be visited	46
	7.5 No of Hatchey visits	110
	7.6 No of Hatchey samples tested	10,967
8. Avian Influenza	8.1 No of serum samples	5,716
surveillance programme	8.2 No of dropping samples at Hotspots	4,631
Fredumine	8.3 No of cloacal swabs ( Backyard)	5,181
	8.4 No. of sample (live bird market)	1,141
	8.5No. of Samples (Poultry Processing Estalishment)	2,510
	8.6 Duck serum sample	832
	8.7 No of cloacal swabs ( Duck)	900
9. No. of Animals Tested for TF	, ,	1,933

### **Research Publications in 2017**

- 1. Amarasiri, M.K.U.T., Fernando, B.R. **Fernando**, **P.S**. and Kalupahana, R.S. (2017). Assessment of suitability of indirect milk quality tests in determining the microbial load of raw milk. Proceedings of 69th Annual scientific session of the Sri Lanka Veterinary Association held on 26th May, 2017 in Kandy, Sri Lanka
- 2. **Athapaththu, A.M.H., Priyankarage, N.**, Weerakkody, N.S., **Fernando, P.S.**, (2017) Selection of Suitable Anti-oxidant to Extend the Keeping Quality of Palm Kernel Cake. *In World's Poultry Science (Abstracts) XVI Annual Sessions*. pp 12-14
- 3. Dissanayake A.M.G.G.D.M., Illippangama I.P.A.U.N.K., Jayasena D.D., Samarakone T.S.1, Kasagala K.H.D.T.3, Palliyeguru M.W.C.D. (2017) Effect of Dietary Probiotics Compared to Antibiotics on Production, Intestinal Health and Meat Quality in Broiler Chickens, 5th International IHSIG Symposium on Poultry Gut Health, Bangkok, Thailand 11-12 October 2017: 43
- 4. FernandoP.S., Weerasooriya, K.M.S.G., Liyanagunawardena., Bandara, W.M.P.B., Mu nasingha, M.N.D., Wijemuni, M.I. (2017). Isolation and identification of *Brucella melitensis* from a swine herd in Sri Lanka. (In) proceedings of Annual scientific sessions of the Sri Lanka Veterinary Association 26th May 2017. Pp 10
- FernandoP.S., Weerasooriya, K.M.S.G., Liyanagunawardena., Jayaweera, M.D.N., Ban dara, H.P.V.D.S., Thalagoda, S.A., Gunathilake, S.K., Abayaratne, P.M.K., Dissanayake, D.M.S.N.B. (2017). Re-emerging of Haemorrhagic Septicaemia in Sri Lanka. (In) proceedings of Annual scientific sessions of the Sri Lanka Veterinary Association 26th May 2017. Pp 12.
- 6. Herath, H.M.A., **Priyankarage, N., Silva, S.S.P.**, Samarasinghe, K., Vidanarachchi, J.K., **Ranathunga, D.L., Dissanayake, D.M.P.D.**, (2017) Performance of Broilers Fed with Diets Containing Palm Kernel Cake with Exogenous Enzyme β- Mannanase. *In World's Poultry Science (Abstracts) XVI Annual Sessions*.pp 2-
- 7. Herath, H.M.G.P., Ranaweera, K.K.T.N., **Weerasinghe, W.M.P.B**. and Kumara Maheepala, M.B.P. 2017. Serum metabolic profile based assessment of nutritional status of temperate crossbred, stall-fed, lactating dairy cows; a case in a medium scale mid-country cattle farm. Proceedings of the 29th Annual Congress, Postgraduate Institute of Agriculture, Peradeniya, pp.4.
- 8. Herath, H.M.G.P., Ranaweera, K.K.T.N., **Weerasinghe, W.M.P.B.** and Kumara Maheepala, M.B.P. 2017. Serum metabolic profile based assessment of nutritional status of temperate crossbred, stall-fed, lactating dairy cows; a case in a medium scale mid-country cattle farm. Proceedings of the 29th Annual Congress, Postgraduate Institute of Agriculture, Peradeniya, pp.4.
- 9. Herath, H.M.G.P., Ranaweera, K.K.T.N., **Weerasinghe, W.M.P.B**. and Kumara Maheepala, M.B.P. 2017. Serum metabolic profile based assessment of nutritional status of temperate crossbred, stall-fed, lactating dairy cows; a case in a medium scale mid-country cattle farm, *Tropical Agricultural Research*, Volume 29 (Accepted).

- 10. Hewa, M. S. Wasana, Gamage, D.R.K. Perera, Panduka De S. Gunawardena, **Palika S. Fernando** and Jayasundara Bandara (2017) WHO water quality standards Vs synergic effects of fluoride, heavy metals and hardness in drinking water on kidney tissues. Scientific Reports. 7
- 11. Illippangama, I.P.A.U.N.K., Dissanayake, A.M.G.G.D.M., Rose S.P., **Palliyeguru M.W.C.D**. (2017) Does the marker used for digestibility studies affect gut microbes and the protein digestibility? 5th International IHSIG Symposium on Poultry Gut Health, Bangkok, Thailand 11-12 October 2017: 49
- 12. Kalupahana, R.S., Rajapaksa, D.I.G., **Fernando, P.S.**, Thilakaratne, D.S., Abeynayake, P. (2017). Occurrence and characterization of nontyphoidal Salmonells in retail table eggs in Kandy district of Sri Lanka. Food Control 72(B): 244 248
- 13. Kazufumi Kasuya, **Tilusha Manchanayake**, Kei Uenoyama, Sayaka Kawa, Kou Takayama, Naoto Imai, Tomoyuki Shibahara (2017). Multifocal suppurative granuloma caused by *Actinobacillus lignieresii* in the peritoneum of a beef steer. *Journal of Veterinary Medical Science*, 79(1): 65-67.
- 14. Kobbekaduwa, K.W.T.N.B.A.; Mangalika U.L.P;., Kurukulasuriya,M.S. (2017) Effectiveness of Electrical Conductivity for Diagnosing Subclinical Mastitis in Dairy Cows. Consortium of Biological Sciences, Kobe, Japan, 8th December 2017
- 15. Kobbekaduwa, K.W.T.N.B.A; Mangalika, U.L.P.; M.S.Kurukulasuriya; Sirisena, D.M.M.C.; Weeragalla, W.A.P.P. (2017) Relationship of Electrical Conductivity (EC) with Sub Clinical Mastitis Detection Methods; California Mastitis Test (CMT) and Somatic Cell Count (SCC). International Research Symposium 2017, Uva Wellassa University, Sri Lanka. Proceedings of Abs. P 278.
- 16. Koka Takizawa, Takashi Mizuno, Makoto Nakahara, Toshiyuki Matsuura, Naoto Imai, Tilusha Manchanayake, Yasuko Hanafusa, Tomoyuki Shibahara (2017). Candidiasis caused by Candida albicans in the forestomachs of a calf. Journal of Japanese Veterinary Medical Association, 70: 219-223.
- 17. Kothalawala, K.A.C.H.A., Makita,K., **Kothalawala, H.**, Jiffry, AM., Kuboto, S., Kono, H(2017) Association of farmers socio-economics with bovine brucellosis epidemiology in the dry zone of Sri Lanka. In Preventive Veterinary Medicine (147) 117-123
- 18. Madubhashini, R.M.S., **Mangalika**, **U.L.P.**, Nayanjalie, W.A.D., **Weeragalla**, **W.A.P.P.** and **Kumari**, **M.V.I.** (2017) Evaluation of Nutritional, Physio-chemical and sensory properties of Sapodilla pulp incorporated set yoghurt. In: Proceedings of the Annual Research Symposium, Faculty of Agriculture, Rajarata University of Sri Lanka. p 23
- 19. Mayurathi, T., Nirogini, T., Ranathunga, KGSK., **Weerasooriya, KMSG**. and **S Puvanendiran** (2017) Occurrence of Brucellosis in cattle and buffalo in Trincomalee district during 2011-2016. 69th Annual Convention of Sri Lanka Veterinary Association, 26th May 2017, Kandy
- **20.** MB Navaratne, NDS Dissanayake, SS Iddamaldeniya, S Kaluarachchi, R.Ratnayake (2017) Development of a new vaccine seed using a local strain of *Babesia bigemina*. Proceedings of 4<sup>th</sup> Scientific Sessions of Sri Lanka Association of Laboratory Animal Science, Pg. 34.

- **21. Palliyeguru, M.W.C.D.**, Sri Warnasinghe, S. T., Rose, S.P. (2017) the mechanism of low protein digestibility, induced by dietary trypsin inhibitors & gut damage, *5th International IHSIG Symposium on Poultry Gut Health, Bangkok, Thailand 11-12 October* 2017: 24
- **22. Palliyeguru**, **M.W.C.D.**, Thiskumara, T.A.C., Munasinghe, V.R.N., **Navaratne**, **H.M.A.K.H.K.**, **Dissanayake**, **D.M.D.P.**, **Priyankaragae**, **N.** (2017) The proper quality testing of imported soya bean meal as a raw material for poultry feed production industry, *World Poultry science Association Book of Abstracts XVIth Annual Scientific Sessions of Sri Lanka Branch*, 09-11.
- 23. Perera, G.I.S., Manchanayake, S.M.T.S., Fernando P.S., Sonnandara, D. K., Nambuge, D. M. and Rathnasiri, S. K. S. (2017) Histopathological confirmation of pulmonary aspergillosis in a captive flamingo in Sri Lanka. 69th Annual Scientific Sessions of the Sri Lanka Veterinary Association, 26th May, Plant Genetic Resource Centre, Gannoruwa, Sri Lanka, 33
- **24.** Piratheepan, S., Perera, E.R.K., **Puvanendiran**, **S** (2017). Prevalence and economic impact of Contagious Pustular Dermatitis disease of goats in Sri Lanka. 69th Annual Convention of Sri Lanka Veterinary Association, 26th May 2017, Kandy
- **25.** Pushpakumara, D.M.S., **Priyankarage, N**., Nayananjali, W.A.D., **Ranathunga, D.L., Dissanayake, D.M.D.P.**,(2017) Effect of Inclusion of Palm (*Elaeis guineensis*) Kernel Cake in Broiler Chicken Rations. *International Journal of Livestock Research*, 7(2): 103-109
- **26.** Ranaweera, K.K.T.N., Herath, H.M.G.P., **Weerasinghe, W.M.P.B**. and Kumara Maheepala, M.B.P. 2017. Serum metabolic profile based assessment of nutritional status of temperate cross-bred, stall-fed, lactating dairy cows: A case study of a medium scale mid-country cattle farm. Proceedings of the 29th Annual Congress, Postgraduate Institute of Agriculture, Peradeniya, pp.6.
- 27. Ranaweera, K.K.T.N., Kurukulasuriya, M.S., Priyankarage, N., Mangalika, U.L.P., (2017) Milk Urea Nitrogen: A tool to evaluate Dairy Cow rations. *International Journal of Research in Agricultural Sciences*, 4 (6): 300-303
- 28. Randiwela, R.G.G.G.V.W, Mangalika, U.L.P., Adikari, A.M.J.B., Pathirana, A.P.D.G. and Weeragalla, W.A.P.P. (2017) Applicability of PCR based assay for the detection of cow's milk adulteration in buffalo curd. In: Proceedings of the Annual Research Symposium, Faculty of Agriculture, Rajarata University of Sri Lanka. p 14.
- 29. Rathnasiri, S.K.S., Gamage D.A. and **Perera, G.I.S.** (2017). Ovarian Adenocarcinoma in backyard poultry in Homagama veterinary range, Sri Lanka. 69<sup>th</sup>Annual Scientific Sessions of the Sri Lanka Veterinary Association, 26<sup>th</sup> May, Plant Genetic Resource Centre, Gannoruwa, Sri Lanka, 32
- 30. S.S. Iddamaldeniya, P.G.A.S.Palkumbura, K.H.D.T.Kasagala, K.G.J.S. Disnaka, N.D.Senasighe, N.A.D.E.M. Gunasekera, A.M.H. Atapattu, N.C.Gamagedera and G.M. Ranasinghe (2017) *Anaplasma marginale* infection confirmed by Major Surface Protein (MSP) 5 gene sequencing. *Proceedings of Annual Sceintific Sessions of Sri Lanka Veterinary Association*, 23<sup>rd</sup> June, 2017

- **31. Senasinghe, N.D.**, Chandrasekera, S., **Iddamaldeniya, S.S.**, **Gamagedera, N.C. and Athapaththu, A.H.M**. (2017) Sero-prevalance of *Neospora caninum* antibodies in a dairy farm. In: Proceedings of the 69th Annual Scientific Sessions of the Sri Lanka Veterinary Association. Plant Genetics Resources Centre, Gannoruwa. 26th May 2017. Pp-20.
- **32.** Sivakumar, T., Bich, L.D.T., Long, P.T., Vietquoc le., **Weerasooriya, G.**, Kume , A., Suganum, K., Igarashi, I., Yokoyama, N. (2017). Serological and molecular surveys of *Babesia bovis* and Babesia bigemina among native cattle and cattle imported from Thailand in Hue, Vietnam. Journal of Veterinary Medical Science. DOI 10.1292/jyms.17-0549.
- 33. Ubeyratne, J.K.H.; Karunarathne, G.M.C.R.; Jayaweera, M.D.N. . Kasagala K.H.D.T, Bandara W.M.P.; Bandara H.P.V.D.S.; Prasad, G.A.T., Kariyawasam, P.A.U., Gunathilake, S.K. (2017) Wild-type *Edwardsiella tarda*, possible cause of unnatural mass death of Asian Openbill (*Anastomus oscitans*) at Kotuatthawala bird sanctuary in Nikawaratiya. Proceedings of 69th Annual scientific session of the Sri Lanka Veterinary Association held on 26th May, 2017 in Kandy, Sri Lanka
- 34. Uduwela, UND, Navaratne, AN, Kothalawala H, Wijithasri, HA, Jayathilaka WMMBK and Darshani DMM (2017) Determination of the toxicityof polyethoxylated tallow amine and commercial glyphosatae using in vitro studies with hamsters kidney cell line. In Proceedings of PGIS research Congress Sri Lanka, September 8-9
- 35. Weerasooriya,K.M.S.G., Fernando, P. S., Liyanagunawardena, N.,Wijewardena, G.,Wijemuni, M. I.,Samarakoon, S.A.T.C. (2017). Natural resistance of Sri Lankan village chicken to *Salmonella gallinarum* infection. British Poultry Science,58:6, DOI:10.1080/00071668.2017.1376034
- **36.** Weerasooriya, K.M.S.G., Fernando P. S., Liyanagunawardena., Wijemuni, M.I. (2017). Identification of *Mycoplasma gallisepticum* from Chronic Respiratory Disease (CRD) suspected poultry flocks. .(In) proceedings of Annual scientific sessions of the Sri Lanka Veterinary Association 26th May 2017.Pp 11.
- 37. Weerathunga, M.W.D.C; **Ubeyratne, J.K.H.**; Nadheer, M.A. (2017) An outbreak of Haemorrhagic septicaemia in the Navithanveli veterinary range in Ampara district, Sri Lanka Proceedings of 69th Annual scientific session of the Sri Lanka Veterinary Association held on 26th May, 2017 in Kandy, Sri Lanka
- 38. Yoshimasa Hirashima, **Tilusha Manchanayake**, Thakahisa Yano, Syoei Kitahara, Terunori Koreeda, Syunsuke Kamimura, Kasumi Sasai, Makoto Matsubayashi, Tomoyuki Shibahara (2017). Development of molecular diagnostic protocols for detecting three types of *Entamoeba* from diarrhoeal and asymptomatic pigs and environmental moist soils. *Parasitology Research*, 116: 2001-2007.
- 39. Yoshimasa Hirashima, **Tilusha Manchanayake**, Thakahisa Yano, Syoei Kitahara, Terunori Koreeda, Syunsuke Kamimura, Kasumi Sasai, Makoto Matsubayashi, Tomoyuki Shibahara (2017). Histopathological and Molecular Identification of *Entamoeba* subspecies from Diarrheal and Non-diarrheal Piglets. In: Book of Abstracts, Fifth Conference on Sri Lanka Japan Collaborative Research, 23<sup>rd</sup> September. University of Peradeniya

40. Perera, K.L.M.S., Hewagama, A.L.U.K., Amarathunga, K.S.P., **Weerasinghe**, **W.M.P.B**. and Rabel, R.A.C. 2017. Design and manufacture of a low cost feed mixer to produce total mixedration (TMR) for dairy cattle. Proceedings of the Peradeniya University International Research Sessions 2017. Volume 21, p. 121

## Names of Officers Attended Overseas Training/ Meetings/ Workshops/ Visits - 2017

Name of the Officer	Course/ Programme	Country
Dr. (Mrs.) M. Kodituwakku	The SAARC Epidemiology	India
Dr. G.G.I.A. Jayawickrama	The SAARC Epidemiology	India
Dr. Vijitha Bandara	Enhancing joint collaborative	Thailand
Mr. W.A.M.G.S. Abesinghe	Livestock & Poultry Breeding	China
Mr. A.B. Amunugama	Livestock & Poultry Breeding	China
Dr. R.M. Ariyadasa	the World Assembly of Delegates of the OIE	France
Dr. L.W.N. Samaranayake	Dairy Asia National focal point	Thailand
Dr. Kumaravithana	Training Pro. For Asian Veterinarians	Japan
Dr. K.D. Ariyapala	Mitigation and Sustainable Development	Rome
Mrs. W.M.S.R. Hemamala	Standardization & Product Development	China
Mrs. P. Hettiarachchi	Standardization & Product Development	China
Mrs. S.M. Kaluarachchi	Good Animal Husbandry Practices (GAHP):	Malaysia
Dr. (Miss) D.L.N. Kumudinie	Rural Enterprise Planning and Promotion	India
Mr. U.T.S. Lokuliyana	Standardization & Product Development	China
	of Dairy Product	
Mrs. M.S.S.L. Peris	High Impact Leadership/ Management Skill	India
	Development	
Dr. (Mrs) K.A.G.B.M. Rathnayake	Strengthen Low Income Families through	Korea
	Women in Rural Area	
Dr. L.W.N. Samaranayake	Inspection of Cattle	New
		Zealand
Dr. P.G. Seneviratne	Molecular Genetic Characterization of	Korea
	Domesticated Animals	
Dr. S.S.P. Silva	Basic maintenance and Troubleshooting of	Austria
	Analytical Instruments	
Dr. S. Vaseeharan	Good Animal Husbandry Practices	Malaysia
Dr. M.D.N. Jayaweera	OIE Regional Workshop	Japan
Dr. P.V. Siriyalatha	Enhancing Capacity	Nepal
Dr. L.D. Kithsiri	Enhancing Capacity	Nepal
Dr. T. Prasad	OIE National Focal point	Indonesia
Dr. S.S.P. Silva	Research Collaboration and Laboratory	Japan
Dr. H. Kothalawala	Research Collaboration and Laboratory	Japan
Dr. N. Gunasekara	Research Collaboration and Laboratory	Japan

Dr. G.D.N. Kumarasinghe	Laboratory Training on Rabies Diagnosis	China
Dr. N. Liyanagunawardhana	PHD Programme and scholarship Reg.	New
		Zealand
Dr. T.P. Wijayathilaka	International Workshop	India
Dr. D.M. Siriwardana	Agricultural and Livestock Products	China
	Processing Technologies for	
	countries along the "Belt and Road"	
Mr. S.H.G. Wickramaratne	7th Multi - Stakeholder Partnership Meeting	Ethiopia
Dr. (Ms.) C.G. Wijesinghe	Wildlife Human Health Net Project -	Canada
	Training of Dr. Ganga Wijesinghe	
Dr. Mrs. Malathi J.	Mgt. of free trade zones of Sri Lanka	China
Dr. Thilakarathna	3rd FAO/OIESAARC VS Officers Meeting	Bhutan
Dr. R.M. Ariyadasa	3rd FAO/OIESAARC VS Officers Meeting	Bhutan
Dr. P.G. Senevirathna	Molecular Genetic Characterization	Korea
Mr. P.P.K. Silva	Strengthen Low Income Families through	Korea
	Women in Rural Area	
Mrs. K. Suthaharan	Cattle Mgt. for milk & meat production	Japan
	using regional resources	
Mrs. A.K.G.S. Jinasena	Agricultural and Livestock Products	China
	Processing Technologies for countries along	
	the "Belt and Road"	
Mr. D.M. Siriwardhana	Agricultural and Livestock Products	China
	Processing Technologies for countries along	
	the "Belt and Road"	
DR. B.R. Abeywickrama	Animal Epidemics and diseases control	China
Dr. H.H.A.S. Piyasiri	Animal Epidemics and diseases control	China
Dr. M.A.M. Fazi	Avian Influenza	China
Dr. K.P.G.K. Badralatha	One health: Connect and proact	Thailand
Dr. G.A. Gunawardana	OIE Regional Workshop	Thailand
Dr. (Mrs.) U.D. Ramanayake	Management of Animal Genetic resource	Thailand
Dr.(Mrs.) S. Puvanendiran	Diagnosis of Animal diseases	Korea
Dr.(Mrs.) P. Alexander	Diagnosis of Animal diseases	Korea
Dr. (Mrs.) H.M.T.K. Ratnayake	Multisectoral Collaboration on the	Philippines
	prevention	
Dr. (Mrs.) T. Mayurathi	Avian Influenza	Japan
Mr. L. Herath	HRD Scholarship (JDS)	Japan
Dr. (Mrs.) Fernando	Antimicrobial resistance	Japan
Dr. (Mrs.) R. Hettiarachchi	40th Business session for APHCA	Myanmar
Dr. L.W.N. Samaranayake	41st Business session for APHCA	Myanmar
Dr. (Mrs.) Siriyalatha	Inspection of cattle	Australia

Dr. L.W.N. Samaranayake	Inspection of cattle	Australia
Dr. C. Karunarathna	Inspection of cattle	Australia
Dr. R.M. Ariyadasa	OIE Global conference	Canada
Dr. W.M.P.B. Weerasinghe	vitro gas fermentation techniques	Germany
Dr. G.R. Rajapaksha	OIE National Focal point	China
Dr. P.M.A.T.A. Wasantha	Veterinary Para Professionals in Asia	Thailand
H.W.G. Punchihewa	Veterinary Para Professionals in Asia	Thailand
Dr. M.D.N. Jayaweera	South Asia one health disease surveillance	Bangkok
	Network	

## **Details of Examinations Conducted in 2017**

No	Name of the Exam	Number of
		Applicant
01	Research Assistants Department exam 1	05
02	1 Research Assistants Department exam 11	01
03	1st year Repeat exam for 2015/2017 batch in SLSAH-	15
	Karandagolla & Seeppukulama	
04	2nd year final exam for 2015/2017 batch in SLSAH-	105
	Karandagolla & Seeppukulama	
05	Entrance Exam for 2017/2017 batch in SLSAH- Karandagolla	315
	& Seeppukulama	
06	Department exams 1 & 11 for Livestock Development Officers	115
	in all provinces except North Western	
07	Recruitment Exam for LDIs in Uva Province	24
08	Recruitment Exam for Technical Officers	20
09	1st year Repeat exam for 2016/2018 batch in SLSAH-	56
	Karandagolla & Seeppukulama	
10	EB exam for draftsmen	01
11	2nd year Repeat & Practical exam for 2015/2017 batch in	04
	SLSAH- Seeppukulama	
12	2nd year Repeat exam for 2015/2017 batch in SLSAH-	08
	Karandagolla	
13	Participated as a member of SLSAH entrance interview board	405

### Provincial Activities Progress of Services / Activities of Provincial DAPH - 2017

Dispensary Cases	WP	СР	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/Buffalo	6,390	3,478	8,942	19,768	9,192	18,715	9,475	3,555	2,818	82,333
Goat/Sheep	3,245	1,819	1,978	23,316	7,479	5,079	3,011	608	1,500	48,035
Pigs	1,875	482	392	145	26	2,732	503	65	168	6,388
Poultry	63,564	40,232	47,914	441,661	90,042	1,947,223	63,074	18,930	23,904	2,736,544
Pet Animal	26,267	8,328	8,921	24,842	2,866	14,794	3,480	3,374	4,264	97,136
Other	1,613	407	746	6,016	1,000	309	735	58	268	11,152
Total	102,954	54,746	68,893	515,748	110,605	1,988,852	80,278	26,590	32,922	2,981,588

Field Cases	WP	CP	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle/Buffalo	10,677	12,562	8,280	17,761	13,019	26,039	12,420	10,907	5,382	11,7047
Goat/Sheep	3,477	2,605	1,984	10,393	6,385	4,972	4,276	783	1,684	36,559
Pigs	2,973	2,672	510	440	121	3,039	463	221	423	10,862
Poultry	16,333	46,920	38,806	112,472	59,579	111,435	19,948	25,086	32,737	463,316
Pet Animal	62	20	19	251	342	131	45	79	74	1,023
Other	14	8	33	225	45	195	200	9	552	1,281
Total	33,536	64,787	49,632	141,542	79,491	145,811	37,352	37,085	40,852	630,088

Issue of Health Certificates	WP	СР	SP	NP	EP	NWP	NCP	UP	SP	Total
Cattle	633	1,443	274	1,316	2,164	1,176	980	1,089	255	9,330
Buffalo	180	8	180	46	455	24	93	373	23	1,382
Goat	229	342	151	605	741	240	180	84	114	2,686
Pigs	391	238	75	253	91	261	119	12	27	1,467
Other	3	0	0	30	10	20	4	0	2	69
Total	1,436	2,031	680	2,250	3,461	1,721	1,376	1,558	421	14,934

### Milk Collection by Main Milk Collecting Organizations 2016 - 2017

Province	District	Milk Collection	Lts.
Province	District	2016	2017
Western	Colombo	6,685,496	1,546,568
	Gampaha	4,645,854	7,807,404
	Kalutara	1,697,122	2,164,264
	Total	13,028,472	11,518,236
Central	Kandy	14,946,979	14,118,748
	Matale	8,437,567	12,439,779
	Nuwara-Eliya	51,290,861	60,655,695
	Total	74,675,406	86,683,762
Southern	Galle	942,888	1,174,806
	Hambantota	9,781,400	14,529,343
	Matara	909,263	908,436
	Total	11,633,551	16,612,585
North Central	Anuradhapura	19,927,496	33,448,002
	Polpnnaruwa	8,948,864	13,739,368
	Total	28,876,360	46,589,217
North Western	Kurunegala	31,851,764	40,640,060
	Puttlam	11,354,250	11,905,696
	Total	43,206,014	52,545,757
Northern	Jaffna	5,126,509	5,919,863
	Kilinochchi	3,269,727	4,221,067
	Mannar	1,976,455	2,540,929
	Mullativu	3,768,915	5,400,700
	Vauniya	3,689,594	5,130,670
	Total	17,831,200	23,213,229
Eastern	Ampara	7,613,900	9,582,021
	Batticaloa	9,351,080	8,318,604
	Trincomalee	3,168,245	5,222,962
	Total	20,133,225	23,123,587
Uva	Badulla	15,340,149	10,866,678
	Moneragala	3,823,358	4,864,251
	Total	19,163,507	15,730,929
Sabaragamuwa	Kegalle	441,773	435,774
	Rathnapura	1,493,720	1,981,268
	Total	1,935,493	2,417,042
* Other		185,290 -	
<b>Island Total</b>		230,744,363	283,123,469

<sup>\*</sup> Collection details recived from;

- \* Ambewela Products
- \* CIC Dairies Pvt. Ltd
- \*Kotmale Dairi Product (Pvt) Ltd
- \* Milco (Pvt)LTD
- \* Nestle Lanka Ltd.
- \* Pelwatte Dairy Industries Ltd.
- \* Polonnaruwa Milk Co-op Society
- \* Other- area is not clearly mentioned
- \* Cargills Quality Dairies
- \* Fontera Brands Lanka Pvt. Ltd
- \* Lanka Dairies (Pvt) Ltd
- \* Richlife Dairies Ltd.
- $\ensuremath{^{*}}$  Chello milk products.
- \* Pattipola Livestock
- \* NLDB

# Details of Consignments subjected to Quarantine Surveillance in 2017

	pe of Animal/Animal- product/Animal By- oduct	No. of consig	•	Quantity a (No./ N			signments ected
		2016	2017	2016	2017	2016	2017
1.	DOC - Grand Parents	06	07	50,934	55,670	06	07
	- Layer Parents	23	20	171,532	116,144	23	20
	- Broiler parents	41	34	349,312	393,090	41	34
	- Commercial layer	-	-		-	-	-
2.	Meat - Poultry	26	29	252.81	243.15	26	29
	- Beef	34	37	110.67	208.71	34	37
	- Mutton	21	43	296.65	562.75	21	43
	- Lamb	31	33	131.41	91.56	31	33
	- Pork	06	07	24.23	69.34	06	07
	-Venison						
	- Duck	15	10	28.5	17.21	15	10
	- Turkey	03	03	24.4	25.26	03	03
	- Casings	04	04	5.25	5.28	04	04
	-Goat meat pro/Carcasses	-	04		97.64		04
3.	Table eggs	-	-				
4.	Hatching eggs	02	-	68,400		02	
5.	Meat and Bone Meal	151	170	18,890.73	21,224.63	151	170
6.	Ornamental fish (marine+-Fresh water)=	306	245	1,345,402	2,888,853	306	245

# Details of Consignments subjected to Quarantine Surveillance in 2017

Тур	e of Animal/Animal- product/Animal	No. of cons	signments	Qu	antity arrived	No. of cons	signments
Ву-р	product	arriv	ved		(No./MT)	inspe	ected
		2016	2017	2016	2017	2016	2017
7.	Cattle	-	02	-	5,030	-	02
	Goats	-	_	-	-	-	-
	Zoo animals	01	02	04(kangaroo)	02(1-Parrot/1-Elephant)	01	02
	Horses	05	04	52	27	05	04
	Pet birds	09	05	602	455	09	05
	Pig	-	-	-	-	_	-
	Rabbit	02	-	64	-	02	-
	Guinea Pig	-	-	-	-	-	-
8.	Dogs/Cats	266	259	350-nos	366-nos	266	259
9.	Fish meal	195	162	8,252.73	7,092.54	195	162
10.	Prawn feed	277	203	8,063.71	6,690.63	277	203
11.	Tallow	14	14	540.18	476.89	14	14
12.	Gelatin	71	72	744.38	749.98	71	72
13.	Egg powder	07	04	06	3.7	07	04
14	Egg Albumin	02	02	2.8	1.8	02	02
	Whole liquid egg	07	08	54.63	82.04	07	08
15.	Feather /Skins/Bristles - Other	91	68	Bristles-89.69	Bristles-68.94	91	68
	Products			Feather-0.92	Feather-0.96		
				Skins-0.49	Skins-0.63		

## Details of Consignments subjected to Quarantine Surveillance in 2017

Typ	e of Animal/Animal- product/Animal	No. of cons	ignments	Quantity	arrived	arrived No. of consignments			
By-	product	arriv	ved	(No./	MT)	inspe	ected		
		2016	2017	2016	2017	2016	2017		
16.	Frozen fish	1,262	1074	34,399.61	29,827.74	1,262	1074		
17.	Fish Food	67	74	1,130.58	1,621.85	67	74		
18.	Leather	248	215	550.56	724.07	248	215		
19.	Feed Ingredients (Soya bean meal, Corn meal, Wheat, Maize, Rape seed, Guar meal, palm kernel, cotton seed meal)	1,044	1353	240,371.29	476,795.26	1,044	1353		
20.	Chicken products (Chicken powder, Chicken essence, Chicken extract, Chicken soup)	55	42	821.48	571.05	55	42		
21.	Pet food	86	95	1,080.90	1,646.79	86	95		
23	Vaccines	08	45	201,280	410,883	08	45		
24	Veterinary drugs	-	103	-	500.6	-	103		
25	Semen	02	02	10,000 doses	4,190 doses	02	02		
26	Yoghurt culture	03	07	4.71	1.06	03	07		

Export of Animals, Animal Products and Animal By-Products - 2017

Annex X

	Category	Number/ Quantity	Number/ Quantity
	Item	(MT)in2016	(MT)in2017
01	Ornamental fish	27,002,117 (tails)	26,222,461(tails)
02		164	26,222,461(talls) 163
02	Dogs Cats	56	97
04	Poultry -DOC	324,835	246,022
05	Pet birds	217	26
06	Zoo animals		
07	Elephants		
08	Rabbit/rat/hamster		
09	Animal products-meat and meat products	1,492.1	2,125.3
10	Table eggs	4,092,854	4,600,624
11	Hatching eggs	68,946	
12	Animal byproducts- Artistic brushes/dog chews/elephant dung papers/hat/hat parts/chank	2,095,807 pieces	2,055,390 pieces
	Drums	04 drums	04 drums
	Bone grits/cattle bone and crushed/dry crab shells/Enzymes/cattle Feed/	56.35	44.97
13	Leather	34.13	34.3

## Details of Consignments Destroyed/ Re exported in 2017

No	Type of Consignment	Country of Origin	Reason for destruction/ detention	Quantity Kg/No.	Action taken
01	Fresh Water Fish	Singapore	No Permit	30 nos	Destroyed
02	Bird	Saudi Arabia	No Permit	1 nos	Re- Export
03	Dog	Thailand	No Permit	1 nos	Re- Export
04	Dogs	Korea	No Permit	2 nos	Re- Export
05	Dog	Korea	No Permit	1 nos	Re- Export
06	Cat	Italy	No Permit	1 nos	Re- Export
07	Prawns	Thailand	Isolation of Exotic pathogen	1 Consignment	Destroyed

## Usage of Raw Materials by Registered Animal Feed Manufactures - 2017

	Catagoria Catago							
	Category	Local Usage	Imported	Total Imported				
A	Cereals							
	1.Maize	168,468.846	107,213.207	275,682.053				
	2.Wheat	550.87	3.53	554.4				
	3.Other	39.44	1,185	1,224.44				
В	Cereal by products							
	1.Rice polish	50,550.904	339.74	50,890.644				
	2.Rice bran/Broken rice	40,562.28	1,579.75	42,142.03				
	3.Wheat bran	73,609.39	3,238.6	76,847.99				
	4.Dhall Powder	n.a	n.a	n.a				
	5.Flour	n.a	n.a	n.a				
	6.Rice	478.98	7,692.32	8,171.3				
	7.Other	3,218.54	27,694.94	30,913.48				
C	Oil Meal							
	1.Coconut meal/Poonac	8,628.52	24,798.15	33,426.67				
	2.Soya Bean Meal	29,665.5	124,854.7	154,520.2				
	3.Molasses	n.a	n.a	n.a				
	4.Coco Husk	n.a	n.a	n.a				
	5.Rice Hull	n.a	n.a	n.a				
	6.Other	0	12,241	12,241				
D	Animal by products							
	1.Fish Meal	2,013.333	972.01	2,985.343				
	2.Meat & Bone Meal	2,358.396	20,112.97	22,471.366				
	3.Poultry offal Meal	524	0	524				
	4.Poultry fat	25	0	25				
	5.Pro- meal	n.a	n.a	n.a				
	6. Other	514	2972	3,486				
Е	Feed Grade Oil							
	1.Pro Fat	0	0	0				
	2.Gro Fat	568.56	1,642.46	2,211.02				
	3.Berger Fat	0	2,332	2,332				
	4.Vegetabel Oil	372.7	5,855	6,227.7				
	5.Calcite Heavy	n.a	n.a	n.a				
	6.Other	1,580.32	873.88	2,454.2				
F	Mineral Supplements							
	1.Shell grit	9,716.78	68.08	9,784.86				
	2.Di Calcium phosphate	1,062.723	3,316.986	4,379.709				
	3.Pre-mixes	258.3	81.86	3,40.16				
	4.Calcium Carbonate	1,628	0	1,628				
	5.Salt	157	0	157				
	6.Others	319	0	319				

Category		Local Usage	Imported	Total Imported	
G	Additives *				
	1.Vitamins	134.53	490.33	624.86	
	2.Minerals& Trace elements	140.324	384.346	524.67	
	3.Binders	364.892	97.728	462.62	
	4.Growth promoters	61.615	85.873	147.488	
	5.Anticoccidial agents	46.016	58.944	104.96	
	6.Enzymes	125.876	209.744	335.62	
	7.DL-Methionine	236.726	1,401.496	1,638.222	
	8.Lysine	145.966	1561	1,706.966	
	9.Others	18.8	103.76	122.56	

## Present Cadre Positions of the Department and Staff Strength (2017.12.31)

	Designation		Current		
S. No.		Approved Cadre	Project I	Project II	Project III
1	Director General	1	0	0	0
2	Additional Director General	3	0	0	0
3	Additional Director General (Admin)	1	1	0	0
4	Director (Administration)	1	1	0	0
5	Chief Accountant	1	1	0	0
6	Director (AP&HS)	6	0	0	0
7	Registrar (Animal Feed)	1	0	0	0
8	Registrar (Veterinary Drugs)	1	0	0	0
9	Chief Animal Quarantine Officer	1	0	0	0
10	Chief Livestock Economist	1	0	0	0
11	Chief Epidemiologist	1	0	0	0
12	Chief Scientist	6	0	0	0
13	Veterinary Investigation Specialist	1	0	0	0
14	Chief Vaccinologist	1	0	0	0
15	Livestock Extension Specialist	1	0	0	0
16	Livestock Reproductive Specialist	1	0	0	0
17	Animal Breeding Specialist	1	0	0	0
18	Chief Agronomist	1	0	0	0
19	Veterinary Public Health Specialist	1	0	0	0
20	Dairy Engineering Specialist	1	0	0	0
21	Assistant Director (Admin)	2	2	0	0
22	Accountant	3	3	0	0
23	Internal Auditor	1	1	0	0
24	Deputy Directors	8	1	3	2
25	Vaccine Superintendent /AD Vaccine	1	0	1	0
26	Animal Quarantine Officers	10	6	0	0
27	Veterinary Research Officer	26	0	17	0
28	Veterinary Investigating officer	24	0	17	0

## Present Cadre Positions of the Department and Staff Strength (2017.12.31)

C		Ammorrad	Current		
S. No.		Approved Cadre	Project I	Project II	Project III
29	Research Officer	5	0	1	0
30	Agriculture Economist	1	1	0	0
31	Livestock Officer	16	2	0	14
32	Veterinary Surgeon	61	15	24	21
33	Civil Engineer	1	0	0	0
34	Legal Officer	1	0	0	0
35	Administrative Officer	3	1	1	0
36	Statistical Officer	1	1	0	0
37	Translator	2	2	0	0
38	Technical Officer	3	3	0	0
39	Draftsman	1	1	0	0
40	Information Communication Officer	1	0	2	0
41	Livestock Development Officer- Special	8	0	2	5
42	Livestock Development Officer- tech Service	59	16	7	22
43	Livestock Development Officer	6	1	0	2
44	Librarian	3	0	0	1
45	Budget Assistant	2	2	0	0
46	Development Officer	62	17	20	16
47	Development Assistant	32	13	8	10
48	Legal Assistant	2	1	0	0
49	Programme Assistant (Archives)	2	2	0	0
50	Programme Assistant (Public Relations)	2	1	0	0
51	Monitoring Assistant	6	2	1	2
52	Programme Assistant	9	2	2	4
53	Programme Assistant (Audio Visual)	2	0	0	2
54	Programme Assistant (Communication)	2	0	0	1
55	Programme Assistant (Media)	2	0	0	0

### Present Cadre Positions of the Department and Staff Strength (2017.12.31)

S.	Designation	Approved			
No.		Cadre	Project I	Project	Project
	211126			II	III
56	Public Management Assistant	72	43	14	10
57	Research Assistant (Special )	7	1	2	0
58	Research Assistant	70	4	61	4
59	Driver	76	18	37	17
60	Tractor Operator	3	1	1	0
61	Laboratory Assistant	47	0	26	2
62	Mechanic	2	0	1	0
63	Boiler man	1	0	0	0
64	Carpenter	3	0	0	0
65	Electrician	1	0	1	0
66	Bungalow Keeper	1	0	0	0
67	Watcher	3	0	0	3
68	Cattle Caretaker	5	0	0	0
69	Milkman	4	0	0	0
70	Goat Caretaker	4	0	0	0
71	Animal Caretaker	12	0	0	0
72	Grass Cutter	15	0	0	0
73	Office Employee Service	32	15	5	10
74	Livestock Assistant	23	4	7	10
75	Garden Labourer	1	0	0	1
76	Sanitary Labourer	1	0	1	0
77	Field Assistant	161	12	61	83
	Total	946	197	323	242

Source: Administration Division

 ${\it Annex~XIV}$  Financial Allocations and the Expenditure Summary - 2017

	Allocation (Rs. Mn.)	Expenditure (Rs. Mn.)	Balance at 31.12.2017 (Rs. Mn.)	Expenditure as a % of Allocation
Project 1				
Capital Expenditure	61 ,500,000	49,080,848	12,419,152	79.81
Recurrent expenditure				
Personal Emoluments	412,950,000	405,468,103	7,481,897	98.19
Other	122,760,000	106,604,435	16,155,565	86.84
Total	597,210,000	561,153,386	36,056,614	93.96
Project 11				
Capital Expenditure	164,000,000	134,780,107	29,219,983	82.18
Total	164,000,000	134,780,107	29,219,983	82.18
Project 111				
Capital Expenditure	401,000,000	216,026,555	184,973,445	53.87
Total	401,000,000	216,026,555	184,973,445	53.87
Total Capital Expenditure	626,500,000	399,887,510	226,612,490	63.83
Total Recurrent expenditure Total Capital & Recurrent expenditure	535,710,000 1,162,210,000	512,072,538 911,960,048	23,637,462 250,249,952	95.59 78.47

