



ANNUAL REPORT



2009



Department of Animal Production and Health

ANNUAL REPORT 2009

**Department of Animal Production and Health
Peradeniya
Sri Lanka
Tel : 94 - 081 - 2388337 / 2388462
Fax : 94 - 081 - 2388619
Web Site: www.daph.gov.lk**

ANNUAL REPORT - 2009

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The demand for livestock products in Sri Lanka has been increased over the recent past due to improvement of income levels, social standards of people and various other factors. Achieving self sufficiency in foods of animal origin is therefore the biggest challenge ahead for the livestock sector.

The country still spends around 20 billion rupees annually on import of dairy products and therefore a high priority is given by the government for development of the dairy sector. On the other hand, the poultry sector has shown a phenomenal growth over the past three decades or so and, is self sufficient in chicken meat and eggs at current purchasing power levels. Similarly Swine and Goat sectors are at different stages of development. Stakeholders of the livestock sector vary from small scale rural farmers particularly in dairy and goat sectors to large-scale entrepreneurs and service providers.

Being the National organization responsible for providing technical leadership, the Department of Animal Production and Health (DAPH) is geared to facilitate production and productivity improvements in the livestock sector. Thus, technical expertise and services are provided to the livestock industry and various development programmes are implemented by the department through its functional divisions. Furthermore, the department implements a range of statutes to safeguard the livestock sector in Sri Lanka.

The DAPH has planned for a re-structuring of its divisions/programmes , in order to cater to the growing demand from the livestock sector. However, maximum efforts are taken by the DAPH at present, to fulfill its objectives with available resources. This Annual Report highlights status of livestock sub-sectors and progress of all programmes/projects implemented and activities carried out by the department during the year 2009.

Most of livestock sector support services/programmes 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 programmes planned for the year 2009.

Special word of appreciation goes to officers in respective divisions/units contributed in providing their annual progress reports and staff of the Livestock Planning and Economics Division for taking efforts in compiling and publishing this document within a short period of time.

Dr. (Ms). HMSP Herath
Director General
Department of Animal Production and Health
15 March 2010

**DEPARTMENT OF ANIMAL PRODUCTION OF
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**

ABBREVIATIONS

| | | |
|----------|---|---|
| Addl. DG | - | Additional Director General |
| AHTC | - | Animal Husbandry Training Center Kundasale |
| AQO | - | Animal Quarantine Officer |
| AQS | - | Animal Quarantine Station |
| CAIS | - | Central Artificial Insemination Station |
| CAQO | - | Chief Animal Quarantine Officer |
| CPRS | - | Central Poultry Research Station |
| DAPH | - | Department of Animal Production and Health |
| DG | - | Director General |
| ICEAPH | - | Institute of Continuing Education for animal Production and Health |
| D/AB | - | Director, Animal Breeding |
| D/AD | - | Director, Administration |
| D/AH | - | Director, Animal Health |
| D/FN | - | Director, Finance |
| D/HRD | - | Director, Human Resource Development |
| D/LPE | - | Director, Livestock Planning and Economics |
| D/VR | - | Director, Veterinary Research |
| LRIU | - | Laws and Regulations Implementing Unit |
| PDAPH | - | Provincial Departments of Animal Production and Health |
| SLAH | - | Sri Lanka School of Animal Husbandry Kundasale |
| VIC | - | Veterinary Investigation Centre |
| VIO | - | Veterinary Investigation Officer |
| VRI | - | Veterinary Research Institute |

1. INTRODUCTION

Department of Animal Production and Health (DAPH), which is functioning under the Ministry of Livestock Development, is the National organization responsible to provide technical leadership for the livestock development in Sri Lanka.

The DAPH, which is located at Peradeniya in Kandy District, provides technical expertise, inputs and backup services to the Provincial Departments of Animal Production and Health (PDAPH) and to livestock sub-sectors. The Department is empowered to implement a range of statutes pertaining to the livestock sector as well, under the provisions made in the Animal Diseases Act, Animal Feed Act and Animals Act.

The objectives of the DAPH are as follows:

To assure an efficient preventive and curative animal health service for maintaining a healthy animal population conducive to the livestock industry and public health;

To promote optimal utilization of animal genetic resources;

To enhance utilization of quality animal feeds and feed resources;

To promote and facilitate good animal husbandry practices;

Conduct research and development towards a sustainable livestock industry;

To develop human resources and ensure efficient and effective information dissemination and technology transfer;

To formulate, monitor and evaluate projects and programmes with sector participation;

To assure quality of inputs, products, services and practices in the livestock sector by enforcement of regulatory provisions; and

To ensure efficient management of departmental activities.

The DAPH headed by the Director General, has following technical and supportive divisions each managed by a Director to carry out its activities;

- Animal Health
- Animal Breeding
- Veterinary Research
- Human Resource Development
- Livestock Planning and Economics

- Administration
- Finance

In addition, the Laws and Regulations Implementing Unit and the Animal Quarantine office are functioning directly under the Director General and the Additional Director General.

Peripheral Units of the DAPH are operating under the respective division. These are as follows:

Fourteen (14) Veterinary Investigation Offices (Anuradhapura, Badulla, Chilaw, Dambulla, Hambantota, Kegalle, Matara, Nuwara Eliya, Pannala, Peradeniya, Pollonnaruwa, Rathnapura, Vavuniya and Welisara) - functioning under the Animal Health Division.

Central Artificial Insemination Station, Kundasale and Artificial Insemination Centre at Pollonnaruwa - Animal Breeding Division

Goat Breeding Stations at Thelehera and Imbulandanda - Animal Breeding Division

Central Poultry Research Station, Karandagolla - functioning under the Veterinary Research Division

Sri Lanka School of Animal Husbandry, Kundasale and Animal Husbandry Training Centre at Seepukulama - Human Resource Development Division

The Organization structure of the DAPH is shown in *Annex 1*

Members of the Directorate were Dr. (Ms) H.M.S.P Herath, Director General, Dr. A.D.N Chandrasiri, Additional Director General, and Dr. A. Chandrasoma, Director, Animal Health, Dr. J. Dharmawardene, Director, Veterinary Research (retired in October), Dr B. Sivayoganathan, Acting Director, Animal breeding (till August 2009), Dr. D.R.T.G. Rathnayake Director, Animal breeding (from September onwards), Dr K. M. T Kendaragama, Director, Human Resource Development, Dr. (Ms) P. Wijewantha, Director, Livestock Planning and Economics, (Ms) Swarna Obeysekara, Director, Administration and, Mr. R.M.R.B.Rathnayaka, Director, Finance.

2. LIVESTOCK SECTOR REVIEW

2.1. Dairy Sector

Contribution of the Agriculture sector to the national GDP had been 12.6% in 2009 and the livestock sector contribution to the Agriculture component has shown an increase from 7.17% to 8.62 % in 2009 . The total contribution of the livestock sector to the national GDP in 2009 was around 1.1 percent. The amount of milk collected by ten (10) main milk processors in the formal milk market in the year 2009 amounted to 122.7 million liters and from this almost 78% was collected by two (02) leading milk collecting organizations. Around 35.9 % and 20.24% of milk collected in the country came from the Central Province and the North-Western Province respectively.

Average farm-gate price of milk in 2009 was around Rs 33.50 per liter. Average cost of production of one liter of milk in the country in 2009 recorded as Rs 28.20, Rs 24.25 and Rs 11.85 in intensive, semi-intensive and extensive systems respectively (*Source: LPE Division, DAPH*).

During 2009 import of dairy products amounted to 63,873.5 MT which is a slight

decrease from the corresponding figure of 65,376.13 MT in 2008. Total import bill on dairy products reached Rs. 18.61 billion which is a 40% decrease from 2008 value of Rs 30.80 billion, due to reduction of world milk prices in 2009. Out of total import of dairy products, import of full cream milk powder and non-fat milk powder in 2009 amounted to 54,745.54 MT and 6,328.04 MT respectively.

The average CIF prices (LKR) of imported dairy products in 2009 were as follows:

| | |
|-------------------|-------------------|
| Whole milk powder | 294,275.90 LKR/MT |
| Skim milk powder | 252,859.90 LKR/MT |
| Cheese | 595,126.12 LKR/MT |
| Butter | 274,135.03 LKR/MT |
| Whey powder | 78,479.9 LKR/MT |

Commencing from August 2008, international market prices of dairy products showed a sharp decline towards 2009. However there was an increasing trend of global milk prices from October onwards. Prices of dairy products in January and December 2009/2009 were as follows:

| Product | Average Price USD/MT | | | |
|-------------------|----------------------|---------|----------|---------|
| | January | | December | |
| | 2008 | 2009 | 2008 | 2009 |
| Whole milk powder | 4387.50 | 2665.20 | 2725.00 | 3260.00 |
| Skim milk powder | 3500.00 | 2158.75 | 2156.25 | |
| | 3181.25 | | | |

The total consumption of milk and dairy products (domestic production and imports) had been 676.7 million liters of LME . The availability of milk and dairy products per caput per annum in the year 2009 was around 95 ml per day per person. The active primary dairy cooperatives in 2009 were 252 in number and 06 cooperative unions were active. There were 182 functional milk chilling centers with a chilling capacity of 648,093 liters per day .

2.2. Poultry Sector

2.2.1. General

Both broiler and the layer industry showed a gradual decline towards end of the year 2009. Production of Broiler chicks recorded a reduction of 4.3 percent from that of 80.7 million chicks in 2008 to 77.21 million in 2009. Layer chick production recorded only 4.49 million in 2009, a significant drop of 23% from the 2008 level of 5.87 million.

Farm-gate prices of table eggs fetched reasonably good figures during the year and showed increasing trends towards the end of 2009. Average live broiler prices were recorded as Rs 199.10 during the period under review. There had been a significant imbalance between supply and demand of chicken meat and eggs towards the later part of the year leading to increased retail prices of these products. Drop in procurement of parent stocks during 2007/2008 resulting decreased day old chick production in 2009, health problems reported in parent and commercial farms, high demand for poultry products following post-war situation in the country etc are considered to be the contributory factors leading to increase in retail prices.

Though the quantity is negligible, export of poultry products recorded 1513.85 MT, an increase of 30% from the corresponding figure of 1161.7 MT in 2008.

2.2.2 Broiler Industry

Procurement of broiler parents recorded a total of 777,848 during the year. Out of which, 519,759 (66.8%) were locally purchased and the balance 33.2% was imported. Procurement of broiler grand parents declined from 14,231 in 2008 to 13,880 in 2009. Total broiler chick production recorded as 77.7 million during the year, a slight decrease of 3.7% percent from the corresponding number of 80.7 in 2008.

Only 29 broiler farms were in operation during the year and main broiler breeder strains chosen by them were Hybro (36.3%) Indian River (29.4%), Hubbard (26.7%), and Cobb (7.6%). In 2009, Broiler parents were imported from France (7.9%), Netherlands (6.8%) USA (6.8%) and UK (6.6%). A total of 519,759 broiler parents were purchased from local GP farms (66.7% of total procurement) in 2009.

Average price of a day-old broiler chick had been Rs.55.10 in 2009 ranging from Rs.45.00 in January to Rs. 77.00 in December. Average farm-gate price of live broiler recorded as Rs 199.10/Kg with the minimum price of Rs 171.25/Kg (January) to the maximum price of Rs 232.50/kg (June).

2.2.3. Layer Industry

A sharp increase of 4.4% on the import of layer parents was seen in 2009; from 52,772 in the previous year to 55,107. Pullet chick production dropped during the year by 23% from 5.87 million in 2008 to 4.49 million in 2009. Five (05) layer breeder farms were in operation during the year and Hyline (40.0%), Shaver 579 (14.1%), Bovans White (37.2%), were the main layer breeder strains imported by these farms. Majority of these imports were from France (13%), USA (15%), The Netherlands (41%), and UK (31%).

Farm gate price of table eggs (brown) remained at reasonably high levels in most parts of the year, ranging from Rs. 6.80 (March) to Rs. 13.20 (December). Average farm-gate price of brown eggs for the whole year recorded as Rs 9.21 per egg.

2.2.4. Poultry Feed Industry

Fourteen (14) Large, medium and small-scale registered Poultry feed manufacturers were in operation during the year and the total feed production in the country estimated as 454,000 Metric Tons (*Source : Registrar, Animal Feeds*).

2.2.5. Poultry Processing Sector

Three (03) large scale, ten (10) medium scale poultry processing establishments and seven (07) further processing establishments were in operation during the year 2009. Estimated chicken meat production in 2009 at 99,280 MT recorded a reduction of 3.1% over the 2008 volume of 102,520 MT.

2.2.6. Exports

Export of chicken meat and chicken meat products reached 1513.85 MT in the year; a growth of 30% from the previous years' volume of 1101.65 MT. Bulk of these chicken meat and chicken meat products were exported to Maldives, UAE, Azerbaijan, Armenia, Iraq, Angola, Oman, Kuwait, Doha Qatar, Ghana and India. Export of table eggs at 486,193 million recorded a further decline by 24% from the corresponding figure of 640,071 million in 2008. A total of 4271 day-old chicks were exported to Maldives during 2009.

2.2.7. Imports

Import of chicken meat and chicken meat products recorded 1004.18 MT, an increase of 62% from the corresponding 2008 figure of 1200.37 MT. However, these quantities represented just 2% of the estimated domestic chicken meat production for the year. Moreover, bulk of these imports (84%) consisted of chicken meat products such as MDM, which is used for the preparation of value added products. The balance volume was imported by the Hotel Industry in the form of Turkey, Duck and specialized products.

(Key data pertaining to the Industry in 2009 is found in Annex II)

2.2.8 Price of chicken meat

Chicken meat was declared as an essential food item by the Government in 2007. Accordingly approval should be obtained from the Consumer Affairs Authority for any price increase in chicken meat. During the year under review, retail prices of chicken meat (skin-on) remained unchanged at Rs 320 /Kg.

2.3. Swine Sector

Pig farming is mainly concentrated into four (04) districts in Sri Lanka. These districts include Colombo, Gampaha, Kalautara and Puttalam. Apart from these traditionally identified areas, to some extent, pig farming is also seen in other parts of the country as well, the Central part and the North Central part. Pig rearing is a profit gaining business which requires simple management techniques and feeding practices with low level of disease occurrence.

Total pig population in Sri Lanka has been recorded as 81,311 in 2009 (*Source: Department of Census and Statistics*). Swine farms could be categorized as small- scale (60 %) medium- scale (25%) and large- scale (15%). Unlike in other areas, most of the farms in the Western, North Western and Central Provinces have properly constructed pig houses. However, it should be noted that management and feeding practices presently adopted by pig farmers could be very much improved further, with introduction of cost-effective interventions. Marketing aspects and quality standards of pork products should also be improved for further expansion of this sector.

Estimated pork production in the country had been 12, 210 MT during the year 2009. A total of 295 kg of pork based products have been imported into the country and 32 kg of pork and pork products were exported during the year 2009 (*Source: Sri Lanka Customs*). Average live weight price of a Large White male and female pigling, recorded as Rs 4500, and Rs 5000 respectively and fatterer pigling price was quoted as Rs 4500 per animal (*Source: NLDB*).

Monthly average retail price of pork during the year ranged from Rs 243.33 per Kg in October to Rs 431.25 per Kg in January (*Source: HARTI*). During the third quarter of the year (June) *Novel human HINI* infection emerged and spread into most parts of the island. First human flu case was reported in June 2009. Simultaneously, there had been a decline in pork consumption due to misconceptions among public on the possible introduction of this infection through consumption of pork. As a result, prices of pork declined during June to October. However, due to education of public and proper dissemination of information through media on the source of this infection, consumption levels gradually improved from October .

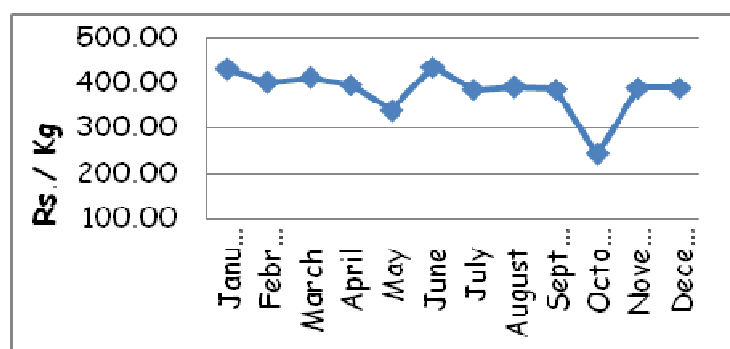


Figure 2.1 : Monthly Average Retail Price of Pork- 2009

Upgrading of swine population is mostly done through the natural service. Artificial Insemination service using chilled semen is currently being provided by the Artificial Insemination Centre located in the Western Province, at the Animal Husbandry Training Center, Kotadeniyawa. (Progress of this programme is stated under the Animal Breeding division)

Environmental related problems continued to be the main problem suppressing further development of the sector. This has led to closure of some pig farms as well. Therefore improvement of farm standards and educating farmers on waste management has become important issues that need serious attention.

2.4. Goat sector

Goat farming is concentrated mainly in dry and intermediate zones of the country where about 75% of goat population is distributed. Jaffna district had been one of the main districts in the country during the past, where goat production been done very successfully. Due to war situation in the North , goat production as well as access to Colombo market was badly affected.

With the returning of civil life into normalcy following cessation of war in mid 2009 , the goat production in the North is gradually being improved. Most of government and non government organizations are presently engaged in the development of goat farming by launching several development programs.

Extensive management system is practiced in the dry zone and semi intensive and intensive systems are practiced in coconut triangle, hill country and in urban areas of the country. Goat farming is mostly linked to socio-cultural patterns and the availability of land and fodder.

Sannan, Jamnapari, kottukachchiya, Sri Lankan Boer are the available breeds in Sri Lanka. Endogenous and cross breeds are also distributed all over the country. Two (02) goat breeding farms located at Thelahera and Imbulandanda, operated under the DAPH contribute in upgrading of goats by distribution of breedable animals.

Artificial inseminations are being done using deep frozen semen produced at Central Artificial Insemination Centre, Kundasale and imported deep frozen semen . Western province is the main province to carry out artificial insemination services for goats while it is performed in other parts of the country as well.

Goat and sheep population in 2009 recorded as 385,460 (*Source: Department of Census and statistics*) and mutton production estimated to be 1,720 MT. Average retail price of mutton in the country reported as Rs. 660.84/Kg in year 2009 ranging from Rs. 543.61/Kg to Rs 722.75/Kg. (*Source: HARTI*). A total of 269,660 kg of mutton had been imported into the country (*Source: Department of Customs*) during the year 2009. Average retail prices of mutton have shown fluctuations throughout the year when compared with the previous year. Price increases were seen towards the latter part of the year 2009. (*Figure 2.2*)

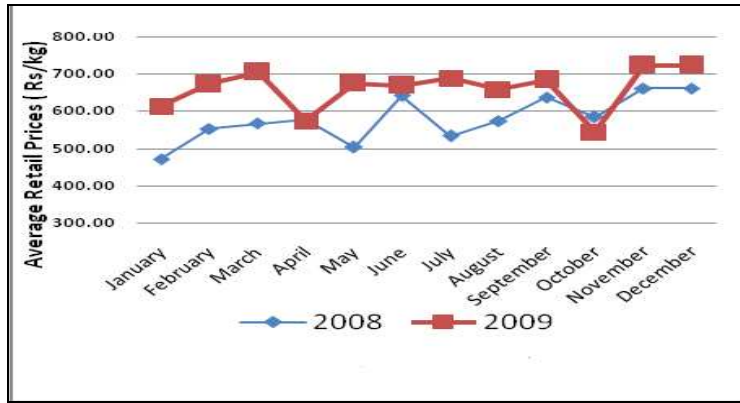


Figure 2.2: Retail price changes of Mutton 2008-2009

2.5 Policy decisions taken by the government

Government is highly concerned about the development of the livestock sector, safeguarding domestic livestock producers and assuring availability of foods of animal origin for human consumption at affordable prices.

The special commodity levy on imported milk powder was increased from Rs.15 to Rs.125 in early 2009 as a measure to protect local dairy industry when the international milk prices were on the declining trend.

3. ANIMAL HEALTH DIVISION

The Animal Health Division is one of the five (05) technical divisions in the Department of Animal Production and Health (DAPH) which is the main implementing organization in Sri Lanka 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 DAPH with its components namely Vaccine Bank and Veterinary Store located at Getambe. Its peripheral units, Veterinary Investigation Centres (VIC's) are established at district or provincial level.

3.1. Functions of the Division

The mission of Animal Health Division has been identified as provision of technical leadership and back-up services to prevent entry of exotic diseases and to control and eradicate existing economically important and zoonotic diseases while maintaining animal welfare and ensuring safety of foods of animal origin.

In order to accomplish the said mission the following major tasks were earmarked to be carried out during the year 2009.

- Establishment and maintenance of GIS based disease surveillance and animal disease database;
- Design, support, monitor and evaluate mass-scale preventive vaccination programme;
- Maintenance of Vaccine Bank and Veterinary-Store;
- Provision of laboratory back-up service for disease diagnosis;
- Establishment and maintenance of district based Veterinary Investigation network;
- Formulation and implementation of special programmes against identified exotic, emerging and re-emerging animal diseases;
- Compilation and dissemination of animal health related information locally and internationally; and
- Functioning as the focal point to World Animal Health Organization.

3.2. Main Activities

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

- Monitoring and evaluation of animal disease 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 programmes for livestock health improvement.
- Planning and implementation of avian influenza surveillance programme and emergency preparedness against emerging, re-emerging and exotic diseases.

3.3. Animal Disease Situation

a. Bovine Diseases

Foot and Mouth Disease

Foot and mouth disease (FMD) broke out in six (06) Veterinary ranges namely Polonnaruwa, Lankapura, Welikanda, Galnewa, Damana and Echchilampattai during the year 2009. The total number of cases in bovine species numbered 140 and two (02) calves at Damana Veterinary range in Ampara district succumbed to death. In addition to cattle, buffaloes too were affected by the disease at Welikanda Veterinary range in Polonnaruwa district. The total number of cases among cattle and buffaloes reported in this outbreak were five (05) and 31 respectively.

Temporal analysis of disease pattern indicates the occurrence of outbreaks at Polonnaruwa district in February, Anuradhapura district in May, Ampara district in June and Trincomalee district in December during the period under review.

Black Quarter

Black Quarter (BQ) was reported in year round manner from ten (10) Districts in five (05) Provinces and the infected districts were Anuradhapura, Polonnaruwa, Ampara, Trincomalee, Puttalam, Kurunegala, Vavuniya, Jaffna, Badulla and Moneragala. The number of cases numbered 434 and the overall case-fatality rate was 34%. There is more than fivefold increase in the number of cases when compared with the previous year. However, the case-fatality rate has come down by 9% when compared with the previous year. The distribution of cases at different Veterinary range level is shown in *Table 3.1*.

Table 3.1: Spatial and Temporal Distribution of BQ in 2009

| District | Veterinary Range | No. of | | Month(s) of Occurrence |
|-------------------|--------------------------|------------|------------|-----------------------------|
| | | Cases | deaths | |
| Anuradhapura | Horowpothana | 247 | 13 | January, August - November. |
| | Palagala | 05 | 03 | August-October |
| | Nuwaragampalatha Central | 22 | 19 | July , August |
| | Padaviya | 01 | 01 | October |
| | Nuwaragampalatha East | 11 | 11 | November , December |
| Polonnaruwa | Hingurakgoda | 02 | 02 | June |
| Vavuniya | Vavuniya | 10 | 07 | May , June |
| | Vengala Cheddikulam | 14 | 02 | November |
| Jaffna | Chankanai | 35 | 25 | September, October |
| Kurunegala | Wariyapola | 07 | 06 | January, February |
| Puttalam | Vanathavillu | 01 | 01 | June |
| Ampara | Padiyatalawa | 27 | 17 | June ,July |
| | Maha oya | 05 | 04 | May , June |
| Trincomalee | Kantale | 02 | 02 | March , September |
| Badulla | Mahiyangana | 13 | 12 | January |
| Moneragala | Bibile | 32 | 23 | December |
| <i>All Island</i> | | 434 | 148 | |

Brucellosis

Cases of brucellosis were recorded at Anuradhapura , Polonnaruwa, Hambantota, Puttalam, Gampaha, Kandy, Matale, Vavuniya and Batticalo districts during the year under review. The total number of reported cases was 268 in cattle and 89 in buffaloes. Most of these herds were managed under extensive management system.

Bovine Babesiosis

One thousand seven hundred and six (1706) cases of bovine Babesiosis were reported during the year and the cases were found in all provinces with an overall case-fatality rate of 2.7%. There has been a slight but insignificant increase in the incidence when compared with the previous year. It has also been noticed that there is a trend in continuous increase in annual incidence and in spite of this phenomena, the pre-immunisation is neither popular nor requested by the field Veterinary Surgeons. Monthly distribution of cases varied from 102 to 185. No seasonal pattern was observed.

Leptospirosis

Forty seven (47) cases of leptospirosis were recorded during the period under review. These were recorded at Matara, Hambantota, Kalutara, Gampaha, Ampara, Trincomalee, Polonnaruwa, Puttalam, Matale, Jaffna, Badulla and Moneragala districts. Cases were detected in every month except for February, March and June .

b. Poultry Diseases

Main poultry diseases reported by divisional veterinary surgeons in this year are Coocidiosis (45, 948 cases), Infectious Bursal Disease (30, 016 cases), E coli infection (3, 915 cases) Fowl pox (6,087cases), Avian Salmonellosis (3,654 cases), Fowl cholera (2,557 cases) and Newcastle Disease (1,398 cases), Incidences of Salmonellosis is on the increase despite the efforts taken to control this disease at Breeder Farms.

Newcastle Disease

One thousand three hundred and ninety eight (1,398) cases of Newcastle disease were reported with an overall case-fatality rate of 31.25%. There is a four fold increase in the reported cases when compared with the previous year probably due to awareness programmes conducted by the DAPH encouraging farmers to report poultry deaths promptly to the government veterinary authority.

Infectious Bursal Disease

Infectious Bursal Disease (Gumboro 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 districts in the country. Monthly incidence of the disease varied from 888 to 3,311 cases with an average of 2099. Overall 32,640 cases were recorded during the year with 34.36 % case-fatality rate. There was an increase of 46% in the number of reported cases in 2009, from that of the previous year and the case-fatality rate too was increased by 8%. The epidemic curve indicates a seasonal pattern with the highest incidence in August to September.

c. Diseases of Small Ruminants

There were five (05) major diseases affecting small ruminants (goat and sheep) during the year 2009. Following is the order of the number of diseases reported during the year 2009.

| | |
|--------------------------------------|-------------------------------|
| Helminthiasis, | - 10, 020 cases and 24 deaths |
| Cerebrospinal Nematodiasis (CSN) | - 3,741 cases and 164 deaths |
| Contagious Pustular Dermatitis (CPD) | - 1,010 cases 12 deaths. |
| Mastitis | - 625 cases with 16 deaths |
| Paramphistomiasis | - 614 cases with 18 deaths. |

Ampara, Polonnaruwa and Kurunegala districts showed the highest number of CPD cases whereas highest number of CSN cases were reported in Kurunegala, Ampara and Anuradhapura districts. Helminthiasis was mostly recorded in Kurunegala, Puttlam and Jaffna districts while highest number of Mastitis cases were reported from Jaffna, Colombo and Gampaha districts. Anuradhapura, Puttalm, Polonnaruwa districts had the highest number of Paramphistomiasis cases attributed by snails in surrounding lakes.

3.4. Vaccination Programmes

Preventive vaccination programmes have been carried out against economically important major livestock diseases such as Haemorrhagic Septicaemia, Foot and Mouth Disease and Black Quarter in ear marked locations in the country. Vaccines for these programmes have been maintained at the Vaccine Bank and supplied to the Provinces as per the vaccination schedule. 519,930 doses of HS vaccine, 460,750 doses of FMD vaccine and 145,167 doses of BQ vaccine have been supplied during the period under review as shown below.

Issue of Livestock Vaccines to the Field - 2009

| Province | HS | FMD | BQ |
|--------------|----------------|----------------|----------------|
| NWP | 93,990 | 98,250 | 75,273 |
| EP | 150,230 | 120,300 | 24,189 |
| NCP | 1,020 | 38,000 | 30,723 |
| NP | 89,890 | 49,850 | 8,448 |
| SP | 70,560 | 32,850 | - |
| UP | 40,080 | 40,000 | 6,534 |
| WP | 44,280 | 68,400 | - |
| CP | 15,760 | - | - |
| Sab.P | 14,120 | 13,100 | - |
| Others | 4,330 | 4,800 | - |
| Total | 524,260 | 465,550 | 145,167 |

The annual vaccination numbers have been found to be 408,473 vaccinations against HS, 342,474 vaccinations against FMD and 114,526 vaccinations against BQ which indicates 68%, 76% and 114% achievements against set targets respectively as depicted in *Figure 3.1*.

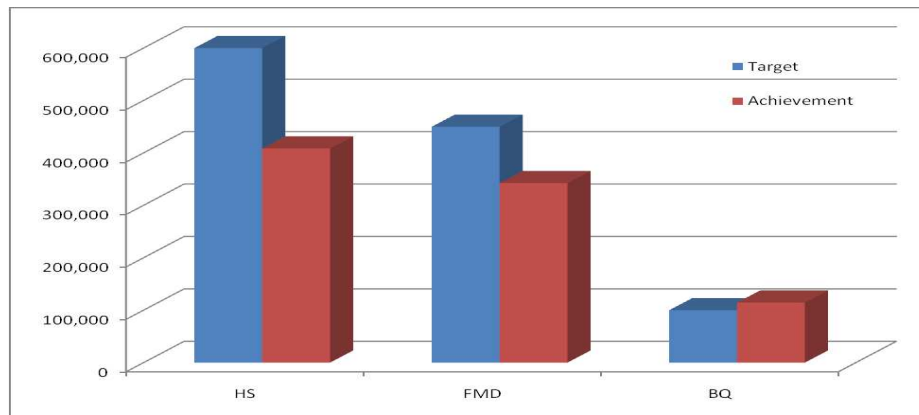


Figure 3.1: Performance in Vaccination against major livestock diseases in 2009

The implementation cost for the field vaccination programme varied from Rs.2.08 (North-Western Province) to Rs.6.31 (Central Province) with the island average of Rs.2.75 per vaccination.

3.5. Veterinary Investigation Services

The concept of strengthening the laboratory back up for Veterinary services by providing Veterinary Investigation facilities at District level by District Veterinary Investigation Centres (VIC's) was recognized in Year 2006. Accordingly, a new VIC has been declared open at Nuwara Eliya during the year 2009. Furthermore, work has been completed to declare open the VIC at Matale District while activities have been in progress in establishing VIC's at Trincomalee, Colombo and Ampara Districts.

The activities performed at the functional Veterinary Investigation Centres at Matara, Welisara, Pannala, Polonnaruwa, Peradeniya, Badulla, Chilaw, Rathnapura, Anuradhapura, Kegalle, Hambantota, Jaffna, Nuwara-Eliya and Ampara have been given in *Annex III*

3.6. Special Animal Health Programmes

a. Livestock Health Improvement Project

A special project had been initiated in year 2007 in selected dairy farms at districts where functional VIC's 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 VIC 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.

Two hundred and fifty eight (258) farms have been located under this programme using the geo-references during the year 2009. Further, 3,499 milking cows have been subjected to California Mastitis Test (CMT) for early detection of sub clinical mastitis. 3,588 calves in these selected farms have been tested for helminthiasis by laboratory testing.

b. Avian Influenza Surveillance Programme

The national surveillance programme against Avian Influenza initiated in 2007 continued in year 2009 as well. Field level implementation was carried out mainly by the Veterinary Investigation Officers. The sero-surveillance programme for the entire country was prepared, coordinated and monitored for its efficiency and effectiveness. A total of 8,679 serum samples were collected during the year under review and 1,536 samples were tested by the Division of Virology using Enzyme Linked Immuno-sorbant Assay (ELISA). There have been sero-reactors to evidence the presence of Avian Influenza type 'A' virus antibody as shown in the Annex IV. The sero-reactors have been further tested to establish the presence or absence of H5, H7 and H9 subtypes and found to be negative. The testing programme continues to the following year too.

In addition to the sero-surveillance programme, the risk-focused targeted surveillance programmes were carried out during the year 2009 as well. 1,529 pooled cloacal swabs were collected from Wild birds, Back-yard poultry in the vicinity of 'Hot spots', Wet markets, Poultry Processing establishments, Birds in quarantine and Ducks and subjected to virus isolation and found to be negative for Avian Influenza Virus. Details of surveillance activities are in Annex IV

c. Salmonella Control Programme

All poultry parent or grand parent breeder farms 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 VIC's and the Veterinary Research Institute (VRI).

Thirty six (36) Poultry Breeder Farms were in operation during the year 2009. However, only 25 of them achieved the state of preliminary verification and it was carried out by the relevant Veterinary Investigation Officers. The two (2) Grandparent farms namely 'Pioneer GP Farm' and 'Fortune GP Farm' were subjected to verification by the VRI and found to be free of salmonella by the screening test.

3.7. Financial Plan and Progress

The financial allocation for capital expenditure during the year 2009 was Rs. 6.1 million. However, due to the financial crisis in the country this allocation was not made available for utilization. Therefore only 39% of the allocated amount was actually utilized during the year. The allocation under recurrent expenditure was Rs 9.785 million of which only 68% was used during the year.

4. ANIMAL BREEDING DIVISION

Animal Breeding division is mainly responsible for the production of high quality animals through improved technologies to meet the country's demand. Genetic materials are processed at Kundasale, Polonnaruwa and Thirunalveli semen production stations to breed cattle, buffalo and goats artificially. Central AI Station (CAIS) , Kundasale is well equipped with facilities for the processing of deep frozen semen. Further, CAIS, Kundasale has been developed up to the level of International standards with high -tech equipment. Semen thus produced is distributed island-wide to artificial insemination units at divisional Veterinary offices through the distribution network. Two (02) Goat breeding Farms located at Thelahera and Imbulandanda maintain Jamnapari goat nucleus herds and provide genetic material for natural breeding of goats. This section describes all activities related to Animal Breeding division during the year 2009.

4.1. Maintenance of Semen Production Centers

Animal Breeding Division operates two Artificial Insemination (AI) centers at Kundasale and Polonnaruwa. Central Artificial Insemination Centre involved mainly in collection, processing, storage and distribution of genetic material (deep frozen semen) throughout the island.

4.1.1. Local Deep Frozen (DF) Semen Production

A total of 139,388 straws of DF semen were produced at CAIS and 7,686 doses were produced at Polonnaruwa. The production details of DF semen at AI centres Kundasale and Polonnaruwa are given in *Table 4.1*.

Table 4.1: Production of DF Semen -2009

| Species | Breed | No of Donors | Kundasale | No of Donors | Polonnaruwa |
|--------------|--------------------|--------------|----------------|--------------|--------------|
| Cattle | Friesian | 8 | 15,450 | 1 | 2,798 |
| | Jersey | 7 | 86,256 | | |
| | Sahiwal | - | - | | |
| | AFS | 2 | - | | |
| | Friesian x Sahiwal | 1 | 21,800 | | |
| | Jersey x Sahiwal | 1 | 12,440 | | |
| Buffalo | Nili Ravi | 1 | 247 | 1 | 4,888 |
| | Murrah | 1 | 3,195 | | |
| Total | | | 139,388 | | 7,686 |

4.1.2. Importation of Equipment to Strengthen the Central Artificial Insemination Station, Kundasale

During the year 2009, chemicals and 50,000 Nos. of straws for semen filling were purchased at a cost of Rs. 415,700.00.

4.1.3. Imported DF Semen

A total of 13,734 doses of imported DF semen (*Cattle* : Sahiwal 3,651, AFS 751, *Buffalo* :Murrah 5,167 , Nili Ravi 738, *Goat* : Jamnapari 2,856, Sanan 571) were available at the end of year 2009.

Details of DF semen distributed to divisional veterinary offices are given under *Table 4.2 and 4.3*

Table 4.2: Issue of DF Semen (Species and Breed wise) - 2009

| Species | Breed | Source | No. of doses |
|-----------------|-------------------|----------|----------------|
| Cattle | Friesian | Imported | - |
| | Friesian IM Bulls | Local | - |
| | Friesian | Local | 35,148 |
| | Jersey | Imported | 39 |
| | Jersey IM Bulls | Local | - |
| | Jersey | Local | 97,680 |
| | Sahiwal | Imported | 436 |
| | Sahiwal | Local | 15,280 |
| | AFS | Imported | 161 |
| | AFS | Local | - |
| | Friesian ×Sahiwal | Local | 18,997 |
| Jersey ×Sahiwal | Local | 22,208 | |
| Buffalo | Murrah | Imported | 195 |
| | Murrah | Local | 6,527 |
| | Nili Ravi | Imported | 40 |
| | Nili Ravi | Local | 527 |
| Goat | Jamnapari | Local | 3,402 |
| | Jamnapari | Imported | 190 |
| | Sanan | Imported | 41 |
| Total | | | 200,871 |

Table 4.3: Issue of local semen from AI Centre, Kundasale- 2009

| Province | Friesian | Jersy | Jy×Sw | Fr×Sw | Sahiwal | Murrah | Niliravi | Jamnapari | Total |
|--------------|---------------|---------------|---------------|---------------|---------------|--------------|------------|--------------|----------------|
| CP | 23,020 | 23,093 | 10 | 4,852 | 565 | 209 | 17 | 926 | 52,692 |
| WP | 1,290 | 14,517 | 2,925 | 3,772 | 2,721 | 3,140 | 266 | 956 | 29,587 |
| NWP | 4,869 | 27,654 | 10,482 | 5,713 | 4,405 | 788 | 73 | 310 | 54,294 |
| NCP | - | 7,674 | 3,739 | 810 | 1,700 | 256 | 5 | 57 | 14,241 |
| UP | 2,095 | 12,045 | 991 | 1,055 | 825 | 36 | - | 33 | 17,080 |
| Sab.P | 1,177 | 4,029 | 726 | 811 | 707 | 316 | 2 | 164 | 7,932 |
| SP | 1,306 | 4,263 | 1,304 | 1,604 | 2,204 | 1,644 | 164 | 300 | 12,789 |
| EP | 1,066 | 3,305 | 1,616 | 160 | 1,348 | 128 | - | 231 | 7,854 |
| NP | 325 | 1,100 | 415 | 220 | 805 | 10 | - | 425 | 3,300 |
| Total | 35,148 | 97,680 | 22,208 | 18,997 | 15,280 | 6,527 | 527 | 3,402 | 197,769 |

4.1.4. Issue of Liquid Nitrogen

The total amount of liquid nitrogen purchased during the year was 196,508 liters with the cost of Rs. 15,640,710.44.

4.1.5. Issue of Inputs for AI

The necessary Inputs for the AI service have been issued from AI centre, Kundasale in order to assure continuity. These inputs include following items

4.1.6. Cost analysis of semen production.

Details of the cost incurred in producing 139,388 doses of DF semen are shown in *Table No. 4.4.*

The cost of production per dose of DF semen at the AI centre Kundasale was Rs.53.80

| Item | Total Issued |
|-----------------------------|--------------|
| Cryo LN2 Cans 30 Lit. | 12 |
| Cryo LN2 Cans (Cryo lab 25) | 04 |
| Semen storage cans (IR 10) | 03 |
| Field Cans 1.6 Lit. | 11 |
| Field Cans 1.5 Lit. | 05 |
| AI Mini gun | 20 |
| Shoulder length AI gloves | 23,495 |
| AI Sheath | 194,300 |
| AI Receipt books | 5,668 |
| Milk cans with dipsticks | 50 |

Table 4.4: Cost of Production per semen dose, CAIS, Kundasale-20

| | Item | Cost (Rs) |
|---|--|--------------|
| a | Expenditure for semen processing - Straws, Diluents, Liquid Nitrogen, Consumables, Electricity, Water, Machinery | 3,270,535.26 |
| b | Expenditure for Administration and Labor V.S.,A.V.S.,R.A.,L.D.I. Salary, Payment, for Semen collectors K.K.S. salary 06 Labours | 3,239,272.80 |
| c | Cattle feed and mineral mixture | 989,810.00 |
| d | Total Cost | 7,499,618.06 |
| e | Total doses of Semen Produced | 139,388 |
| | Cost per dose | 53.80 |

4.1.7. Development Work.

Action was taken to establish one (01) ha of CO-3 Fodder grass at CAIS, Kunadasale. It was also able to prepare 500 kg of hay out of *Bracharia brizantha* and 2,500 kg of silage.

During the year concerned some renovations were made at the semen processing laboratory under the JICA/GFMI Project funds.

4.2. Artificial Insémination Service

4.2.1. Artificial Inseminations

The achievement of AI for the year 2009 was 172,319 (cattle, buffalo, goat and swine) which is 3.39% increase over the year 2008. The highest number of AI has been performed in the Central Province. Province-wise AI targets, performance and achievement of the country for the year 2009 are given in *Table 4.5*.

A total of 3,514 inseminations in goats and seven hundred and twelve (712) inseminations in swine have also been reported during the same year. Demand for goat AI was mainly from Northern Province. Swine AI was carried out in the Western Province.



Figure 4.1: Deep Frozen Semen ready to use for AI.

Table 4.5: Province- wise AI targets, performance and achievement- 2009

| Province | Target | Performance | Achievement % |
|-----------------|----------------|--------------------|----------------------|
| Central | 42,941 | 45,952 | 107 |
| North Western | 47,712 | 45,227 | 95 |
| Western | 23,091 | 23,052 | 100 |
| Uva | 14,569 | 14,379 | 99 |
| North Central | 16,141 | 12,234 | 76 |
| Southern | 12,456 | 9,409 | 76 |
| Northern | 10,954 | 9,812 | 90 |
| Eastern | 6,887 | 5,891 | 86 |
| Sabaragamuwa | 7,302 | 6,363 | 87 |
| Total | 182,053 | 172,319 | 95 |

4.2.2. Pregnancy Diagnoses

Number of Pregnancy Diagnosis performed was 48,612 by field Veterinarians. The Province-wise target, performance and achievement details are as follows. (Table 4.6)

Table 4.6: Province- wise target, performance and achievement of pregnancy diagnosis

| Province | Target | Performance | Achievement % |
|-----------------|---------------|--------------------|----------------------|
| Central | 10,260 | 7,226 | 70 |
| NWP | 25,000 | 13,489 | 54 |
| Western | 9,329 | 7,303 | 78 |
| Uva | 5,190 | 4,776 | 92 |
| NCP | 8,058 | 4,078 | 51 |
| Southern | 5,392 | 3,625 | 67 |
| Northern | 3,693 | 2,098 | 57 |
| Eastern | 3,170 | 3,218 | 102 |
| Sabaragamuwa | 4,926 | 2,799 | 57 |
| Total | 75,018 | 48,612 | 64.8 |

4. 2.3. Calvings

A Total of 51,581 calvings have been reported by field veterinarians during the year. The province-wise target, performance and achievement details are given in Table 4.7.

Table 4.7: Province wise target, performance and achievement of calvings-2009

| Province | Annual Target | Performance | % Achieved. |
|--------------|---------------|---------------|-------------|
| Central | 13,455 | 11,407 | 85 |
| NWP | 20,200 | 16,673 | 83 |
| Western | 8,513 | 6,568 | 77 |
| Uva | 4,136 | 4,314 | 104 |
| NCP | 5,355 | 3,049 | 57 |
| Southern | 4,465 | 3,169 | 71 |
| Northern | 2,872 | 2,498 | 87 |
| Eastern | 1,474 | 1,977 | 134 |
| Sabaragamuwa | 3,015 | 1,926 | 64 |
| Total | 63,485 | 51,581 | 81 |

4.3 Heifer Calf Rearing Program

This program could not be implemented due to financial constraints. However 389 calves were insured during the period concerned. (See Table No 4.8 for details.)

Table 4.8: Heifer Calf Insurance Program - Progress 2009

| Province | Feb | Mar | July | Aug | Nov | Dec | Total |
|--------------|-----|-----|------|-----|-----|-----|-------|
| Central | 16 | 29 | 36 | 62 | 27 | 19 | 189 |
| Uva | 32 | 45 | 48 | 19 | 17 | 7 | 168 |
| Sabaragamuwa | 0 | 14 | 2 | 1 | 2 | 0 | 19 |
| Nwp | 0 | 1 | 0 | 0 | 0 | 0 | 1 |
| Western | 1 | 1 | 0 | 0 | 0 | 0 | 2 |
| Southern | 0 | 3 | 0 | 0 | 0 | 0 | 3 |
| Eastern | 0 | 7 | 0 | 0 | 0 | 0 | 7 |
| Total | 49 | 100 | 86 | 82 | 46 | 26 | 389 |

4.4. Infertility Investigations

Nine (09) programmes were conducted in seven (07) veterinary ranges namely Rikillagaskada, Ginigathena, Theldeniya, Medirigiriya, Bopaththalawa farm, Maskeliya and Udunuwara. Number of cases done during the year totalled 109

4.5. Oestrous Synchronization Program

4.5.1 Cattle

Cattle oestrous synchronization program was conducted in Morawewa veterinary range. 117 cows were examined for hormonal treatment and 19 cows were selected for heat induction. Others were not selected for various reasons such as pregnancy, in heat, recent calving etc.

4.5.2. Buffaloes

This program was conducted in buffalo herds located in dry zone and intermediate zone. Animals for this program were selected by the respective veterinary surgeons of field veterinary ranges. 162 buffalo cows were treated with PGF 2 α hormone for heat induction.

The Veterinary ranges and number of animals selected for this program are indicated below in *Table No. 4.9*.

Table 4.9: Heat Synchronization.

| S.No. | VS Range | No. of Inductions | No. Inseminated | No. Pregnant |
|-------|-----------------------------|-------------------|-----------------|--------------|
| 1 | Dummalasooriya | 18 | 18 | 8 |
| 2 | Rasnayakapura | 17 | 17 | 6 |
| 3 | Nikaweratiya | 6 | 6 | 3 |
| 4 | Polpithigama | 2 | 2 | 2 |
| 5 | Kurunegala | 15 | 10 | 2 |
| 6 | Ganewatta | 5 | 5 | 3 |
| 7 | Palugaswewa estate, Chillaw | 30 | 30 | 1 |
| 8 | Wannigama Training Center | 3 | 3 | 2 |
| 9 | Welikanda | 66 | 61 | |

4.5.3. Issue of Reproductive Hormones for Field Programmes.

A total of 1,108 (PGF2 α - 556 doses, Crestar ear implants - 29, GnRH - 389 doses, PMSG - 134 doses) units of reproductive hormones were issued during the period under review

4.5.4. Goat Ultrasound Scanning and synchronization

Total of 334 does were examined in both Thelahera and Imbulanda goat nuclear farms for pregnancy diagnosis using ultrasound scanner and 155 pregnant does have been separated. Some of the selected does were treated with progesterone releasing intra-vaginal sponges for heat induction. Summary of the program is as follows:

Thelahera:

| | |
|----------------------|-----|
| No. of does examined | 223 |
| No. Pregnant | 112 |
| Heat Induced | 20 |

Imbulandanda

| | |
|----------------------|-----|
| No. of does examined | 111 |
| No. Pregnant | 43 |
| Heat Induced | 20 |

4.6. Issuance of Code Numbers

Code numbers were issued for Veterinary Surgeons (VSS), Artificial Insemination Technicians (Private: PAIT and Government: GAIT), Veterinary Ranges and Semen donor bulls. The details are indicated below:

Table 4.10: Code numbers issued for VSS, PAIT and GAIT

| Number | Category | Number |
|--------|---------------------------|--------|
| 1 | Veterinary Surgeon | 01 |
| 2 | Government AI Technicians | 19 |
| 3 | Private AI Technicians | 13 |

Table 4.11: Code numbers issued for Semen Donor Bulls

| Number | Breed of the Semen Donor | Code Numbers Issued |
|--------|--------------------------|---------------------|
| 1 | AFS | 985, 986 |
| 2 | Jersey | 275, 276, 277 |
| 3 | Friesian | 440 |
| 4 | Murrah | 1116 |

Table 4.12: Code number issues for new Veterinary Ranges

| Number | Province / District | Veterinary Range | Code Issued | Number |
|--------|--|------------------|-------------|--------|
| 1 | Eastern province, Trincomalee District | Eachchalampathy | 732 | |
| | | Serunuwara | 733 | |
| 2 | Eastern Province, Ampara District | Damana | 734 | |
| | | Lahugala | 735 | |
| | | Karaithivu | 736 | |
| | | Sainthamaruthu | 737 | |
| | | Uhana | 715 | |
| 3 | Eastern Province, Batticaloa District | Ritheethenna | 738 | |
| 4 | Western Province, Kaluthara District | Panadura | 330 | |
| | | Ingiriya | 331 | |
| 5 | Southern Province, Matara District | Pasgoda | 928 | |

4.7. AI Training

Veterinary Surgeons, Livestock Development Officers and Private AI technicians are trained on AI in order to strengthen the field AI program. Applications received from field veterinary surgeons with the recommendation of respective provincial directors are forwarded for Artificial insemination training following approval from the Director, Animal Breeding. 244 private technicians and 67 government technicians had been applied through the said channel in 2009. A total of 121 personnel were participated for the training programmes conducted at the Artificial Insemination training centre, Polonnaruwa (Table 4.13)

Table 4.13: Training of AI Technicians

| Technician Category | No. trained |
|---------------------|-------------|
| Private(fresh) | 49 |
| VSs(fresh) | 32 |
| LDOs(fresh) | 28 |
| LDOs(refresh) | 12 |
| Total | 121 |

4.8 Milk Recording and Selection of High Yielding Cows for Progeny Testing

Continuation of the Milk Recording Program was carried out in the year 2009. Total Registrations up to end 2008 had been 3546 and 2100 continued in this year.

4.9. Natural Breeding Program

The natural service program was started in 2004 with the aim of providing quality bull calves to farmers who do not have access to the AI service. Objective of this program is gradual dissemination of exotic inheritance into the local cattle and buffalo gene pool which is not covered by the AI Program. At present the coverage of the AI service in different agro climatic zones remains at 18 % of the breedable cattle population with a range of 5% to 80 %. The remaining 82% of



Fig 4.2. Distribution of Grass Cuttings



Fig 4.2. Training on Silage Production

animals are not covered with artificial breeding program.

Under the natural breeding programme, bull calves selected from both NLDB farms and farms registered under milk recording program are purchased directly and distribute among selected farmers in selected areas at a 50 % concession rate. Though it was planned to distribute 150 calves among selected farmers in 2009, achievement of the program was not successful as purchasing of animals from NLDB and private farms were not possible due to limitation of funds. Only (eight) 08 numbers of bull calves were distributed among farmers in the Eastern province with the consent of respective veterinarians.

4.10. Promotion of Fodder and Pasture Utilization

The extent of land prepared for pasture and legume seed production at Polonnaruwa AI Centre during the year had been 3.5 ha.. A total of 713 fodder / grass demonstration plots were also established during in 2009. Pasture establishment done in 7 ha , Glyricidia has been planted in 1.75 ha and fodder nurseries developed in 2.0 ha at the AI Centre, Polonnaruwa.

Training programs were conducted by the Animal Breeding Division to educate the dairy farmers, Livestock Development Officers of DAPH and Extension Officers of MILCO on cultivation, maintenance, and utilization of fodder/pasture. A total of 1,643 individuals were trained under this program in 2009.

4.11. Goat Development Program

Under the Animal Breeding division, two (02) Jamnapari nucleus herds are maintained at Thelahera and Imbulandanda. Suitable animals are issued from these units for field use.

In year 2009 a sum of Rs. 8.0 million was allocated for the maintenance of these two Goat Breeding Farms.

Total expenditure incurred during the year was Rs. 5.75 million and income of both these breeding farms was Rs. 1.7million. The sole purpose of maintaining these breeding farms is to provide a service to goat farmers and 29.6% of the income was earned against expenditure from farm produce in 2009.

Table 4.14: Province wise Sale of Goats for Breeding -2009

| Province | Imbulandanda Farm | | | Thelahera Farm | | |
|--------------|-------------------|-----------|-----------|----------------|-----------|------------|
| | Male | Female | Total | Male | Female | Total |
| Central | 22 | 20 | 42 | 08 | - | 08 |
| Uva | 28 | - | 28 | - | - | - |
| NWP | 01 | 05 | 06 | 03 | 10 | 13 |
| NCP | - | - | - | 04 | 12 | 16 |
| Eastern | - | - | - | 32 | 22 | 54 |
| Southern | - | - | - | 02 | 08 | 10 |
| Northern | - | - | - | 30 | - | 30 |
| Western | - | - | - | 01 | - | 01 |
| Total | 51 | 25 | 76 | 80 | 52 | 132 |

Total of 540 Goats were available in two farms at the end of year 2009 and details are as follows

Table 4.15: Closing Stock Position on 31st December 2009

| Farm | Adults (>12mths) | | Young stock (4-12mths) | | Kids (0-4mths) | | Total |
|--------------|------------------|------------|------------------------|-----------|----------------|------------|------------|
| | Male | Female | Male | Female | Male | Female | |
| Thelahera | 03 | 169 | 15 | 31 | 40 | 89 | 347 |
| Imbulandanda | 05 | 115 | 07 | 31 | 13 | 22 | 193 |
| Total | 08 | 284 | 22 | 62 | 53 | 111 | 540 |

4.11.1. Farm Infrastructure and Land Development

Renovation of one unit of twin labor quarters and the office at Imbulandanda was completed in 2009 .

4.12. Financial progress

The total financial allocation for the Animal Breeding Division for the year 2009 was Rs. 158.35 million and overall utilization of funds was 14.7%.

5. VETERINARY REASERCH INSTITUTE

Research programmes pertaining to Livestock Sector are conducted by the Veterinary Research Institute (VRI) of the Department. The VRI, which is the National Institute to carry out livestock research, provides a range of services and produces vaccines , reagents as well to support further growth of the livestock sector.

The vision of the VRI is “To be a centre of excellence in research and development of the Livestock Industry”.

The VRI, headed by a Director and supported by three (03) Deputy Directors (*Animal Production Research, Animal Health Research and Technical Services*) has eight (08) research divisions namely, Pathology , Parasitology, Bacteriology, Virology , Animal Breeding, Animal Nutrition , Pasture and Fodder, Farming System Economics and Marketing. The Central Poultry Research Station (CPRS) , Karandagolla, Veterinary Investigation, Poultry Service Unit , Animal Virus Laboratory, Polgolla, Veterinary Vaccine Production Centre and Animal Experimental Farm, Gannoruwa are operated under the respective division/Deputy Director of the VRI.

Approved cadre and actual cadre positions of the VRI totaled 190 and 138 respectively for the year 2009.

Dr. J.Dharmawardane served as Director ,VR from January to October and Dr. K.M.T Kendaragama was appointed as Acting Director from November 2009. Mr. D.V.S. de S. Gamage and Dr. B.D.R. Wijewardana functioned as Deputy Director Animal Production Research and Deputy Director, Technical Services respectively.

5.1. Products and Services

The details of manufacture and issue of veterinary products by the VRI in 2009 are as follows:

5.1.1. Products issued

| a. | Local Vaccines | Annual Target | Production | Issues |
|----|---------------------------|---------------|------------|---------|
| | HS(Oil/ Alum) vaccine | 1,203,300 | 539,000 | 542,080 |
| | BQ vaccine | 200,000 | 148,104 | 31,515 |
| | Tick Fever vaccine | 800 | 439 | 439 |
| | Wart vaccine | 75 | 42 | 42 |
| | Fowl Cholera | 239,250 | 218,460 | |
| | FMD pilot vaccine | 5,000 | 5,000 | |
| | Komarov vaccine | | | 358,60 |
| b. | Diagnostic Reagents | | | Issues |
| | CMT Reagent (L) | | | 11.5 |
| | Pullorum Antigen (Doses) | | | 190,000 |

| | |
|----------------------------------|--------|
| c. Therapeutic Reagents | |
| Teat dip solution (L) | 6.5 |
| Udder infusion base (vials) | 632 |
| d. Dairy Products | |
| Yoghurt Culture (2ml & 6ml vial) | 103 |
| e. Other Products | |
| Day Old Chicks (Nos) | 48,439 |
| Parent chicks(Nos) | 150 |
| Eggs (Nos) | 13,741 |
| Poultry meat (Kg) | 24.8 |
| Poultry litter (g) | 11,835 |
| Forage Specimens | 752 |

5.1.2. Services

Examination of Specimens

| Sample | Number |
|---|---------------|
| Blood smears | 304 |
| Dung / faecal samples | 3280 |
| Litter samples | 39 |
| Milk samples | 109 |
| Meat Identification | 63 |
| Intestinal samples | 5 |
| Tissue samples for histopathology | 101 |
| Serum /Plasma samples for Brucellosis & Leptospirosis | 339 |
| Serum /Plasma samples for AI | 7279 |
| ABST | 106 |
| Other samples | 135 |

Analysis, identification and quality testing of samples

| Specimen | Number |
|-----------------------|---------------|
| Feed | 525 |
| Milk & dairy products | 53 |
| Soil | 17 |
| Water | 124 |
| Yoghurt | 14 |
| Curd | 5 |

Field investigations

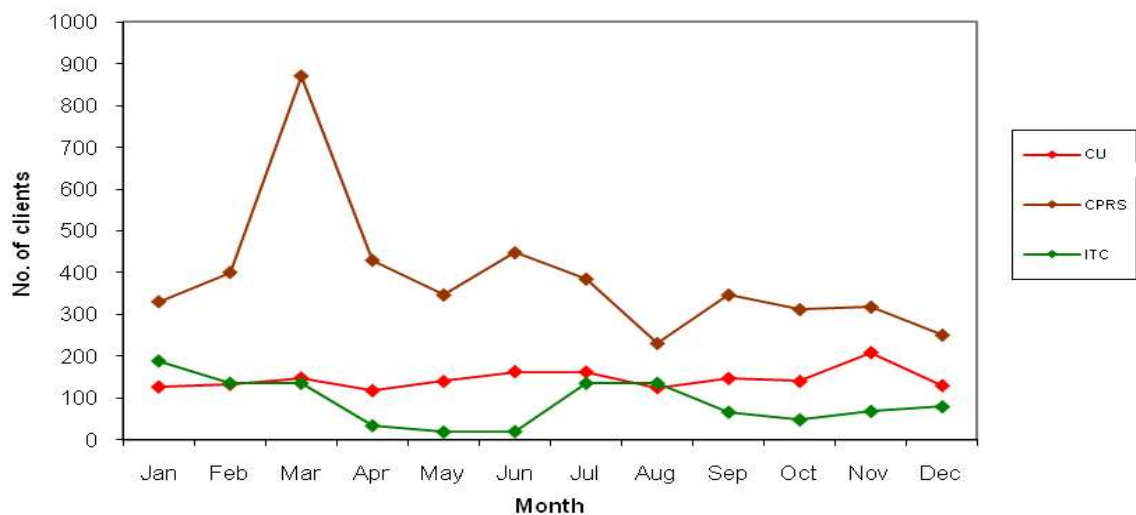
| Activity | No. of Visits |
|--|----------------------|
| Field investigations on poultry | 29 |
| Field investigations of fish | 19 |
| Field investigations on Bovine , Caprine and other | 5 |
| Field investigations in to nutritional problems | 6 |
| Field investigations in to reproductive problems | 1 |

5.2. Clients Registered at VRI

Clients Registered at different Units

| Place of Registration | No. of Clients |
|---|-----------------------|
| Coordinating Unit (Room 21) (CU) | 1753 |
| Central Poultry Research Station (CPRS) | 4672 |
| Information Technology Centre (ITC) | 1074 |

Figure 5.1 : Clients Registered at Different Units



Sector based Client Registration at the Coordinating Unit

| Sector | No. of Clients |
|--------------------|-----------------------|
| Cattle and Buffalo | 192 |
| Goat and Sheep | 13 |
| Pig | 2 |
| Poultry | 446 |
| Aqua culture | 6 |
| Laboratory Animals | 26 |

| | |
|----------------|-------------|
| Canine | 118 |
| Flesh | 77 |
| Feed | 413 |
| Dairy Products | 133 |
| Milk | 39 |
| Other | 219 |
| Total | 1684 |

Service vice categorization

| Service type | No. of Clients |
|----------------------|-----------------------|
| Disease Diagnosis | 773 |
| Feed formulation | 404 |
| Feed analysis | 390 |
| Soil analysis | 3 |
| Quality testing | 92 |
| Meat identification | 22 |
| Advisory | |
| Disease control | 21 |
| Dairy technology | 12 |
| Livestock Management | 16 |
| Total | 1733 |

Discipline-wise client registration

| | |
|---------------------------------|-------------|
| Animal Nutrition (AN) | 397 |
| Bacteriology (Bac) | 394 |
| Farming Systems and Livestock | |
| Economics (FS) | 30 |
| Parasitology (Para) | 233 |
| Pasture (Pas) | 63 |
| Pathology(Pat) | 47 |
| Poultry Service Unit (PSU | 422 |
| Veterinary Investigation Centre | 275 |
| Virology (Vir) | 277 |
| Total | 2138 |

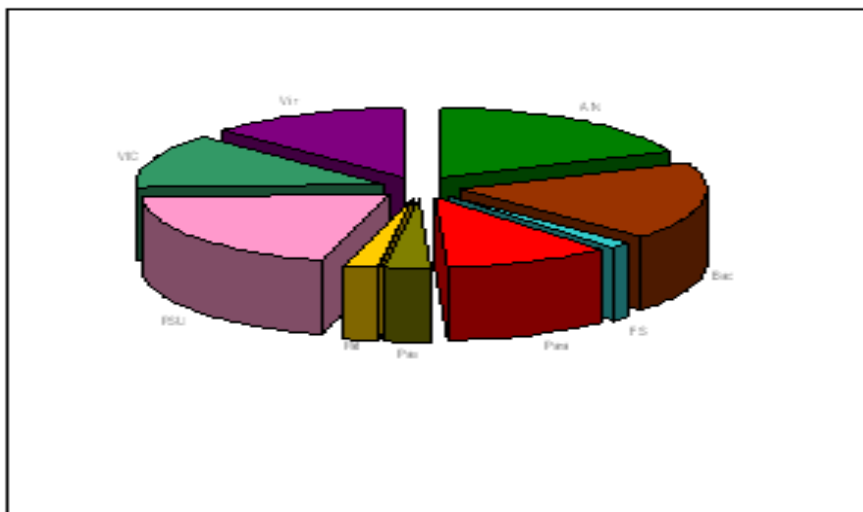


Figure 5.2.: Discipline-wise client registration

5.3. Progress of Research Projects

a). Determination of Mycotoxins in animal feeds

Chief Investigator: Dr. N. Priyankarage

Funds allocated: Rs. 411,500.00

Funds utilized: Rs. 395,570.00

Objectives:

- To identify and quantify the Mycotoxin status of animal feeds and feed stuff.
- To establish the method for analyzing Mycotoxin in the division of Animal Nutrition

Initially, maize (corn) was selected as a sample for determination of fungal toxins. Proper training is needed for handling Mycotoxin and relevant chemicals. Therefore the training was organized for five (05) officers in the division at the Industrial technology Institute (ITI). During the training, both TLC and HPLC methods were used for the Mycotoxin determination.

Establishing of these methods is in process in the division using available TLC and HPLC equipment and the project would be continued in 2010.

b). Low milk fat syndrome: prevention and control

Chief Investigator: Dr. ULP Mangalika

Funds allocated: Rs.211, 500.00

Funds utilized: Rs. 152,075.00

Objectives:

- Assessment of low fat problem in Mid Country area and to identify the common causes for the low fat content of milk and prevention of the problem.

This study was carried out in 2 stages.

During first stage milk collecting centers in Mid country were visited and 572 milk samples were collected. These samples were analyzed for fat % to identify farmers who supply milk below the acceptable levels of fat. Out of these 60 farmers were selected according to the fat percentage of milk samples (fat percentage lower than the 3.5%) for comprehensive survey.

During second stage individual farms which were identified in the first stage, were visited to collect udder milk samples together with all the other information which can be related to fat content of milk such as breed, stage of lactation, age, nutritional status, milk production, milking procedure, disease condition of animal etc.

Collected milk samples were analyzed for milk fat, lactometer reading, SNF, total solids, protein, lactose and minerals and also for mastitis status using CMT test.

Results:

Results of individual milk samples collected from 60 farms selected for comprehensive survey is presented in *Figure 5.3*. The milk fat content (%) of all selected cows was less than 3.5 and ranged from 1.8 – 3.4.

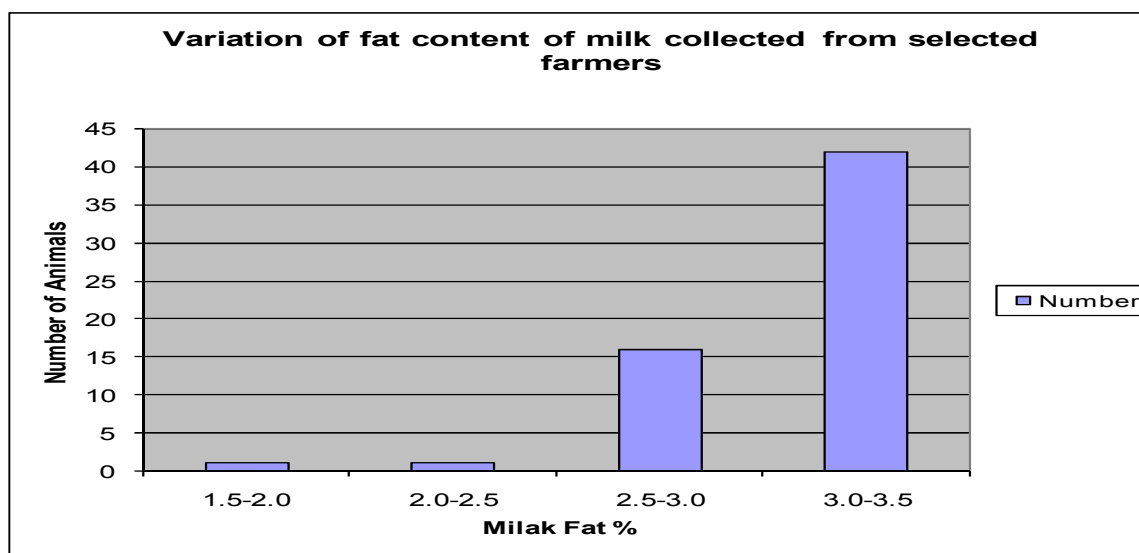


Figure5.3: Variation of milk fat content of selected cows

Different factors affecting fat percentage of milk were also analyzed.

Conclusions:

According to the final results, most prominent reason for low milk fat syndrome was breed followed by stage of lactation. Nutrition was the third important reason for low fat content in milk. Other important factors which affected for milk fat content were milking frequency, age of cow and stage of lactation. However, climatic conditions and seasonal variation and regional differences can also play an important role. Quality and the composition of the milk are of the most importance to the dairy industry and human health because milk composition is related to milk processing ability.

c). Milk urea nitrogen: as a tool for the determination of nutritional status of dairy cows

Chief Investigator: Dr. ULP Mangalika

Funds allocated: Rs.411, 000.00

Funds utilized: Rs. 332,506.19

Objectives:

- Develop laboratory facilities to detect Milk Urea Nitrogen (MUN) levels in VRI
- Study normal levels of MUN in different feeding systems in Sri Lanka and study relationship between MUN levels and Nutritional status and reproductive parameters of dairy cows

Progress:

Technique was developed at VRI to detect Milk Urea Nitrogen levels in milk using UV visible spectrophotometer.

d). Determination of nutrient and amino acid composition of raw materials.

Chief Investigator: Dr. N Priyankarage

Funds allocated: Rs.411,000.00

Funds utilized: Rs.215, 847.00

Objectives:

- To establish the NIRA system for VRI
- To establish the amino acid analysis system in the division of animal nutrition
- To establish the new methods for mineral analysis in animal feedstuffs
- To develop the database with nutrient composition of all feedstuffs available in Sri Lanka

Physical Progress:

Initially, four feed ingredient samples including maize, rice polish, Soya bean meal and fish meal were identified to determine the nutrient levels, Emphasis was give on maize because there is a great demand for determination of quality and grading of locally grown maize.

During the year, methods were established for determination of bulk

density of seeds, determination of sound seeds, immature seeds, presence of foreign materials, damaged seeds. These parameters are required for the grading of maize. In addition, proximate composition and mineral compositions were also determined in the collected samples.

Soya bean meal, rice polish and fish meal samples were also collected during the year and analysis of nutritional compositions are in the progress. This project will be continued in 2010.

e). Characterization and economic evaluation of cattle and buffalo farming systems in the Uva- province in view of obtaining optimum potential from milk production.

Chief Investigator: Mr. RM Chandrasena

Funds allocated: Rs.211, 000.00

Funds utilized: Rs.159, 041.60

Objectives:

- Characterization of existing dairy farming systems distributed in the Uva Province.
- Economic evaluation of each dairy farming system in relation to production and marketing.
- To assist in identifying support need to be given to farmers in view of reaching production potential of individual farmers thus increasing the contribution to the Gross domestic Production.

Physical Progress:

Stage 1: Collection of secondary data

- Basic information on geographical, administrative, climatic, population, cattle and buffalo farmers and herd composition has been collected from the Uva province
- Field survey format developed, pre-tested and format revised, the target group identified and the field survey is in progress. The field survey has been completed in six (06) veterinary ranges out of 15 veterinary ranges (sample size 150)
- Data editing / tabulation is in progress.

Stage 2: Introduction of interventions in tethered herds- increase water offered to cattle, increase places of tethering, increase size of rope, night feeding, and mulching remnants of night feeding on floor/ground

f). Study of the effects of supplementation of Amaranth on the composition of milk, lactation performance and fatty acid profile of milk of different dairy spp. with cost-benefit analysis of milk.

Chief Investigator: Ms. IK Leukebandara

Funds allocated: Rs. 511,000.00

Funds utilized: Rs. 140,117.92

Objectives:

- Analysis of Amaranth for nutritional composition

Physical Progress:

Following activities have been completed:

- Establishment of the water connection to the research field.
- Collection and preservation of Amaranth seeds for future use
- Knowledge acquisition through post graduate studies
- Training on Fatty Acid Analysis at ITI

- Literature search

This project will be continued in 2010

g). Isolation and identification of respiratory disease causing viruses in ducks and village chickens with emphasis on ND and AI

Chief Investigator: Dr. H. Kothalawala

Funds allocated: Rs. 311,000.00

Funds utilized Rs. 254,759.75

Objectives:

- To focus on rapid diagnosis, outbreak investigation and surveillance of Avian influenza and other avian respiratory diseases

Physical Progress:

Sample collection:

Seventy clinical samples were collected from Kurunegala and Putlam district. 32 samples examined for AI and ND and 14 were found to be positive for ND. The project will continue in 2010.

h). A study on environmental and health aspects leading to mortality of shrimp hatchers in Sri Lanka

Chief Investigator: Dr. JKH Uberathne

Funds allocated: Rs.261, 000.00

Funds utilized: Rs. 212,025.00

Objective:

- To study on environmental and health aspects leading to mortality of shrimp hatchers in Sri Lanka

Discussion:

Vibrio spp occur widely in aquatic environments and are a part of normal flora of coastal seawaters. High virulent strains of *V. harveyi* result in up to 100% mortality from the dose strength as few as 10^2 CFU ml⁻¹ and it is a ubiquitous bacterium in warm marine waters and a part of the intestinal floras of marine animals. Hence, *Vibrio* spp. exist in the water used in shrimp culture facilities and biofilm, which is formed on water contact structures of hatcheries. Vibriosis is controlled by rigorous water management and sanitation to prevent the entry of *Vibrio* bacteria in the hatchery water. Adaptation of different seawater disinfection was established at hatcheries and the monitored hatcheries showed sand, chlorine, charcoal, cartridge filtration was more effective than UV filtration. However, there were no drastic changes of the ecological parameters such as temperature, pH, salinity, dissolved oxygen and unionized ammonia which lead to fry mortality and impairment of larval stage changes. Level of coliform counts and existence of *E.coli* showed possible contamination of tanks water at the hatcheries or it can occur in coastal waters influenced by human and animal wastes.

Ways of *Vibrio* entry into hatcheries included artemia water, algae, sea water after pumping from the sea (reservoir tank water), brood stock rearing tank water and these results are in agreement with the reported data. Members of the Vibrionaceae occur naturally in the digestive tract and on the skin surface of marine animals and

faecal matter from the brood stock contaminate water possibly at the time of spawning this would affect larval health through the *Vibrio* entry via the brood stock tank water.

Of the different Vibrios, *V. fluvialis* was predominant in the larvae and post-larvae rearing tanks water and followed by *V. alginolyticus*, *V. damsela*, *V. harveyi*, *V. anguillarum*, *V. cincinnatiensis*, *V. mimicus*, *V. furnisii* and *V. cholerae*.

Since microflora associated with larval stages of shrimp could affect the health and development of the larvae and post-larvae, suggested bacetriophage treatment and using green algae *Tetraselmis suecica* to control *Vibrio* spp. in shrimp hatcheries as alternate technology for control of bacterial pathogens. Despite use of disinfectants and diligent management bacterial diseases commonly occurs in shrimp larval rearing tanks where large numbers of larvae and post-larvae are closely confined in a nutrient rich medium. Therefore, in order to improve the survival rates and control of pathogens antibiotics use for brood stock maintenance and larval and post-larval rearing. A wide range of chemicals and drugs are being used, both for prophylactic treatment and to prevent or control parasitic, fungal and bacterial diseases in shrimp hatcheries in Sri Lanka.

Results on this study indicated that resistance to erythromycin (98.57%) was the highest followed by trimethoprom sulphonamide (70.73%), gentamycin (48.57%), tetracycline (21.43%). Incidence of resistant to enrofloxacin (2.86%) was the least observed and none of the isolates resistant to chloramphenicol. The regulations implicated by aquaculture authority might have restricted the use of these antibiotics in aquaculture. Results of incidences of multiple antibiotics resistance in vibrios showed most of the erythromycin resistant isolates exhibit multiple antibiotic resistances.

i). Assessment of lead and cadmium in feed fish, Tilapia sp and Carps in selected reservoirs.

Chief Investigator: Dr. KHDT Kasagala

Funds allocated: Rs. 411,000.00

Funds utilized Rs. 221,440.25

Objectives:

- To measure quantitatively the amount of Lead and Cadmium present in water, aquatic vegetation and tissues of Tilapia spp.

Physical Progress:

Hundred Sample (water, aquatic vegetation and fish) collections were done under 11 selected reservoirs of Anuradhapura, Pollonnaruwa and Puttalam districts. The heavy metal content of samples is being measured using Atomic Absorption Spectroscopic method at the Sri Lanka Standard Institution. Results were received from 31 samples and 69 are still pending. Some of fish samples are reported to contain fairly high amounts of lead content.

j). Forage seed production in Sri Lanka; study the Agronomical Feasibility and Economical Aspects of the operation.

Chief Investigator: Mr. GGC Premalal

Funds allocated: Rs. 511,000.00

Funds utilized: Rs. 458,231.96

Objectives:

- To evaluate the preliminary status of forage seed production under local conditions
- To monitor the agronomic feasibility of seed production operation

Physical Progress and important findings:

- Total seed harvest, seed viability, seed germination and initial operational cost were monitored on important forage species viz; *Brachiaria brizantha* (Signal grass), *B. ruziziensis* (Ruzi grass), *Panicum maximum* (varieties/eco types: Wild Guinea, TD 58, and 435) and *Lolium perenne* (Rye grass)
- Seed germination rate in *Bracharia* species was 20-25% and viability was over 70%.
- Seed production of Rye grass was success and germination and viability rates were 16% and 60% respectively.
- Total seed harvest of Rye grass was approximately 120 kg/ha
- Germination of improved *Panicum* varieties (435 and TD 58) was 20-25%
- Seed collection of wild Guinea grass was a significant operation and it was observed that successful seed collection program could be initiated throughout the country.

k). Effect of diet and use of competitive exclusion agents on the incidence of sub clinical enteritis in broiler chicken

Chief Investigator: Dr. SSP Silva

Funds allocated: Rs.1, 011,000.00

Funds utilized: Rs. 437,661.00

Objectives:

- In vitro screening of naturally found competitive exclusion agent to antagonize *C. perfringens* type A
- In vivo selection of most effective competitive exclusion agent to control subclinical necrotic enteritis in broilers

Physical Progress:

After analyzing the results, two lactobacilli strains (p37c4 & p25s1) that had maximum in-vitro antagonistic activity, better bile and acid tolerance and considerable amount of lactic acid hydrogen peroxide formation were selected for in-vivo testing.

- During the same period, hyperimmune serum for *C. perfringens* was prepared using six (06) chickens to use in ELISA test.

- In vivo animal trial involving 192 day old broilers were collected out for determining for following:
Scoring of necrotic lesions in small intestine, necrotic lesions in liver, clostridia counts and Lactobacilli counts in SI and caecum, sialic acid concentration in ileal and caecal contents, serum alpha toxin antibody level, oocyst counts in SI, histopathological lesions, RT PCR for *C. perfringens* in ileal contents

Important findings:

- There was no significant difference in growth performance of birds in three treatment groups and also with control.
- Scores of necrotic lesions were significantly different - higher number of birds that had intestinal lesions was found in the control group. Oocysts were not found in any sample. Analysis of the results in other tests is underway.

l). Topo typing of Foot and Mouth Disease virus isolates in Sri Lanka.

Chief Investigator: Dr.B.D.R.Wijewardena

Funds allocated: -Rs 411,000.00

Funds utilized: Rs.317, 309.95

Physical Progress:

Under this study isolation of foot and mouth disease virus from field outbreaks were made from Polonnaruwa district.

Two (02) of the isolates from Sinhapura Veterinary range were submitted to world Reference Laboratory, Pirbright and designated as belonging to Topo type ME-SA

m). Accreditation with International Standards Organisation (ISO) for diagnostics and services of the VRI.

Chief Investigator: Dr.BDR Wijewardena

Funds allocated: Rs. 411,500.00

Funds utilized: Rs. 202,426.00

Physical Progress:

In collaboration with the Industrial Technology Institute, Colombo a programme commenced in order to train our technical staff and prepare the laboratories in order to obtain ISO 17500:2000 certification for analytical laboratories.

As the Animal Nutrition Laboratory, Animal Breeding Laboratory, Parasitology Laboratory, Animal Virus Laboratory have satisfied the requirements, their applications are to be submitted to the Sri Lanka Accreditation Board for certification. The procedure manual and the manual for integrated Management system have been prepared. Two (02) officers have followed training course at the SLAB .The Management system of services and products was computerized using a software programme generated specifically for this purpose.

Hence all activities relating to services and products request, processing, report generation have been automated.

n). Development of an immunization method to control immature paramphistomiasis

Chief Investigator: Dr.SS Iddamaldeniya

Funds allocated: Rs. 411,000.00

Funds utilized: Rs. 323,361.26

Objectives:

- To develop an immunization method to control the disease.
- To develop a method to store metacercaria for longer duration in the division.
- To develop a PCR method to diagnose immature paramphistomiasis in post mortem samples

A PCR method was established to diagnose immature paramphistomiasis in samples from post mortem examinations.

o)Detection of anthelmintic resistance of cattle nematodes in Sri Lanka

Chief Investigator: Dr.ND Senasinghe

Funds allocated: Rs. 411,000.00

Funds utilized: Rs. 191975.62

Objectives:

- To determine whether anthelmintic resistance is present in cattle in Sri Lanka
- If resistance is present, to identify the anthelmintics and nematodes that is resistant.

Physical Progress:

The trial in the intermediate zone of Sri Lanka was completed in November 2009. Thirty (30) animals with an EPG count above 100 were randomly selected from a NLDB farm in the Intermediate zone and used for two (02) anthelmintic treatments: Albendazole and Levamisole. One group that did not get any anthelmintics was left as the control group. Faecal egg counts were taken prior to treatment and post treatment. Anthelmintic resistance was determined by Faecal Egg Count Reduction Test (PECRT). Larvae were cultured to identify the nematodes present in the farm. Pasture nematode burden was also determined.

Results:

Although the farm had a history of recurrent nematode infections in spite of deworming, the study revealed that the animals in the farm were not resistant to Albendazole and Levamisole. It was found that the reason for the problem in the farm was the heavy larval contamination of the pasture. The relevant authorities were advised on deworming and management techniques (rotational grazing).

p). Phenotypic and genotypic characterization of goats in Sri Lanka

Chief Investigator: Dr WMSP Weerasinghe

Funds allocated: Rs. 411,000.00

Funds utilized: Rs. 211,173.85

Objectives:

- To study the geographic distribution of goats in different parts of the Island
- To study socio-economic status of goats farmers
- To identify the phenotypic characteristics of goats
- To identify the genetic variation of goats population in the country

Physical Progress:

According to the Phenotypic appearance three predominant non descriptive types of goats were identified. Animals with small body size and grey, white, black and mixed colour coat, drooping ears and small backwardly curved horns categorized in to one group. Second group of animals have small body size with black and white colour coat, two white strips are in either side of the midline of the face, small backwardly curved horns, presence of wattles and white colour hooves. Animals with stocky body, mixed colour coat were categorized in to third group. Variation among the animals of this group is higher than other two. In Kalpitiya Veterinary Range Special breed of indigenous goat type was observed. They have small body size with dark brown colour coat, ears developed as small ear lobes and small curved horns directed upwards. These animals are vigorous and productive animals.



Figure 5.4: Non descriptive type of goats



Figure 5.5: Special type indigenous breed identified in Kalpitiya Veterinary Range

Horns are predominantly a feature of indigenous goats in more than 89.1%. The shape of horns varied in goats with the commonest type being straight, followed by curves and least common being spiral with various intermediate combinations. The major orientation of horns were combination of back out and back in. The least being down out and other types.

The incidence of beardless is high in goats with percentage of 97.02% and the incidence of wattle is low (14.85). The dominant ear orientation was drooping/looping (60%), with lateral and other types being low (less than 40%). However the incidence of lateral ear type was low (39%).

The major type of face and back profiles were flat/straight (59.18%), with other types being low in these indigenous goats. The sloping rump profile was predominantly common type (82.82%) with flat profile being low (17.17%).

The commonest incidence of coat colour was mixed combinations, followed by brown, white, black grey and brown mixed. The predominant coat type was short hairs with incident of long hairs being low. The commonest shape of head was short (56.43%) and long head shape was 43.56%. The commonest incidence of colour of pigmentation under the tail was pale 57.44, followed by black, brown and least being pale. In these goats incident of light colour of hoof was higher (51.04%) than both dark (39.58%) and mixture of dark and light.

Most of the traits presented, may appear to be little economic importance at present. However most of them could be found to be highly genetically related with traits of economic importance. The other tremendous importance of categorical traits could be used to formulate breed standards for each non descriptive breed which are non existent at present.

q). Assessment of the performance of Urea Molasses Multi-nutrient Block (UMMB) under field conditions

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

Funds allocated: Rs. 411,000.00

Funds utilized: Rs.320, 856.80

Objectives:

- To evaluate the effects UMMB supplementation on the performance of dairy cows fed with improved fodder grass.

Discussion:

Dry matter intake was not affected by the UMMB supplementation. The basal diet used in the current study was chopped CO3, which is a hybrid Napier variety considered as a good quality fodder grass and one of the objectives of the current study was also to evaluate the effects of UMMB supplementation fed with good quality roughage. The results of the current study indicated that unlike with feeding poor quality roughages to dairy cows where the improvement of the production comes from an increase in DMI, production increase in animals fed with good quality roughages is mainly through enhancing the digestibility of the feed.

Application of findings a field level:

There have been no previous studies in Sri Lanka that have reported the effect of UMMB supplementation under improved fodder grass feeding. Previous studies were focused on the feeding of poor quality roughages and the effects were characterized mainly by positive production response and an increase in DMI. The UMMB supplementation was therefore recommended mainly with hay or straw feeding. With new findings, it can be recommended that UMMB supplementation is effective in improving performance of dairy cows fed with good quality fodder grass and the effect would be due to enhancement of digestibility of the feed.

r). Laboratory scale production of Leptospira vaccine against L. hardjo in mice using ISA 50v2 as an adjuvant

Chief Investigator: Dr MAR Priyantha

Funds allocated: Rs. 411,000.00

Funds utilized: Rs. 219,216.25

Objective:

- Using ISA 50v2 as an adjuvant in leptospira killed vaccine for mice

Conclusion:

ISA 50V2 will be better candidates for the leptospira vaccine as adjuvant. The pathological changes and mortality in mice can be minimized using leptospira killed vaccine. Further the route of vaccination did not imply for the Mat results of mice in Leptospira vaccination. Also the vaccination of livestock species could be the better solution to control human leptospirosis.

s) Evaluation of 132bp tandem direct repeats and meq gene of Marek's disease virus (MDV-1) genome for the detection of oncogenic strains of MDV-1 and for the monitoring of vaccination with live attenuated strains of MDV-1 in commercial layers

Chief Investigator: Dr T Sivakumar

Funds allocated: Rs. 411,500.00

Funds utilized: Rs.73, 607.00

Objectives:

- Development of rapid and sensitive diagnostic method for the detection of Marek's disease virus -1 in poultry for the monitoring of vaccination with live attenuated strains of MDV-1

Physical Progress:

Sample collection:

Feather tips samples (133) were collected from chicks vaccinated with live attenuated strains of MDV-1. The samples were collected from Kurunagala, Polannaruwa, Colombo, Vavuniya and Mannar areas. 20 samples were subjected to the DNA extraction by phenol - chloroform method and the successful extraction of DNA was confirmed by gel electrophoresis. This project will be continued in 2010.

t) Development of ELISA technique to detect antibodies to *Babesia bovis* infection.

Chief Investigator: Dr NB Nawarathne

Funds allocated: Rs. 411,000.00

Funds utilized: Rs. 87,622.78

Objectives:

- To Establish ELISA as an antibody detecting technique for *Babesia bovis* infection

Physical Progress:

Antigen preparation will be finalized during the month of January 2010.

u) Application of molecular genetic techniques to identify a genetic marker for genetic selection of goats for higher growth rate

Chief Investigator: Dr. S.H.G Wicramarathne

Funds allocated: Rs. 411,500.00

Funds utilized: Rs. 52,276.54

Objectives:

- Study presence of genetic polymorphism of candidate genes (Growth hormone) in *Jamunapari* goats
- Select goats exhibiting correlation between polymorphism sites and phenotypic growth traits

Physical Progress

Blood samples were collected from *Thelahera* goat farm from pre-determined goats in the growing stage depending on their birth weight, sex, parity and growth rate. Samples were stored in -80° C until further use.

Protocols for gradient and conventional PCR were optimized for the expected annealing temperature. Optimization work was carried out at the biotechnology center, University of *Peradeniya*. This project will be continued in 2010.

v). Development of easy to carry kit for the detection of adulteration in milk

Chief Investigator: Dr. ULP Mangalika

Results:

Milk adulteration testing kit was developed to detect adulterants (Sugar, salt, starch, urea, neutralizers, hydrogen peroxide, and formalin) in mil

5.4. Income and Expenditure

Income

The VRI generated funds through provision of its services. Accordingly, the annual income of the Institute totaled Rs . 3.1 million. Details are given under Annex VI

Expenditure

Total recurrent and capital budget for the VRI for the year had been Rs 31.04 million and Rs 48.06 and the expenditure percentages been 100% and 35 % respectively.

6. HUMAN RESOURCES DEVELOPMENT DIVISION

The Human Resource Development Division (HRDD) is one of the main divisions of the Department of Animal Production and Health (DAPH). The major responsibility of this Division is to develop human resources in order to meet the present and future needs arising in the Livestock sector. The technical activities of the division could be broadly classified into four (04) programmes as follows.

- Training and Technology Transfer
- Educations and Manpower Development
- Information Dissemination and Publicity
- Self-Employment Support Service and Entrepreneurship Development

6.1. Staff and Units

The HRD division consisted of 94 staff during the year 2009. Apart from the Head Quarters at Peradeniya, the HRD Division administers following four (04) units:

- Institute of Continuing Education (ICEAPH), Gannoruwa
- Sri Lanka School of Animal Husbandry (SLSAH), Karandagolla
- Animal Husbandry Training Center (AHTC), Seppukulama
- The Department Library, Gannoruwa

6.2. Training and Transfer of Technology

Training programs have been used as the main tool for transfer of technology. Most of the officer trainings were conducted at the ICEAPH whereas farmer training was conducted at the AHTC, Seppukulama. During the year under review, a total of 2, 499 personnel have been trained.

a. Key Training Areas

In the case of Department officers, training programs were planned consultation with the relevant target groups and their supervising officials both in the Central and Provincial Departments of Animal Production and Health. Following subjects have been emphasized mainly through these training courses.

- Update on the Livestock Industry and Animal Husbandry;
- Development of Managerial Capabilities of officers ;
- Motivation training for clerical and minor staff;
- Training of Trainers;
- Computer application; and
- HPAI Preparedness.

Farmer trainings conducted were mostly need based and on request.

6.2.1. Training Conducted at ICEAPH

The Institute of Continuing Education of Animal production and Health (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 sector activities.

The ICEAPH is well equipped and have facilities to conduct residential training programme.

a. Training Programs

Training programs conducted at ICEAPH classified according to disciplines and are given in *Table 6.1 and figure 6.1* with number of programs conducted under each discipline.

Table 6.1: Classification of training Programmes conducted at ICEAPH

| Discipline | No. of Programs | No. of Participants | No. of Man days |
|--|------------------------|----------------------------|------------------------|
| Dairy Sector | 40 | 1166 | 1863 |
| Poultry Sector | 10 | 375 | 375 |
| Development of Managerial Capabilities | 22 | 1075 | 1398 |
| Computer Skills Development | 13 | 206 | 293 |
| General Animal Husbandry | 33 | 1407 | 1502 |
| Internship Training Programmes | 3 | 106 | 106 |
| Induction Training Programmes for newly recruited LDOO and RAA | 1 | 24 | 48 |
| Induction Training Programmes for newly recruited APH Officers | 1 | 35 | 540 |
| Other Programmes | 34 | 1295 | 1396 |
| Total | 157 | 5689 | 7521 |

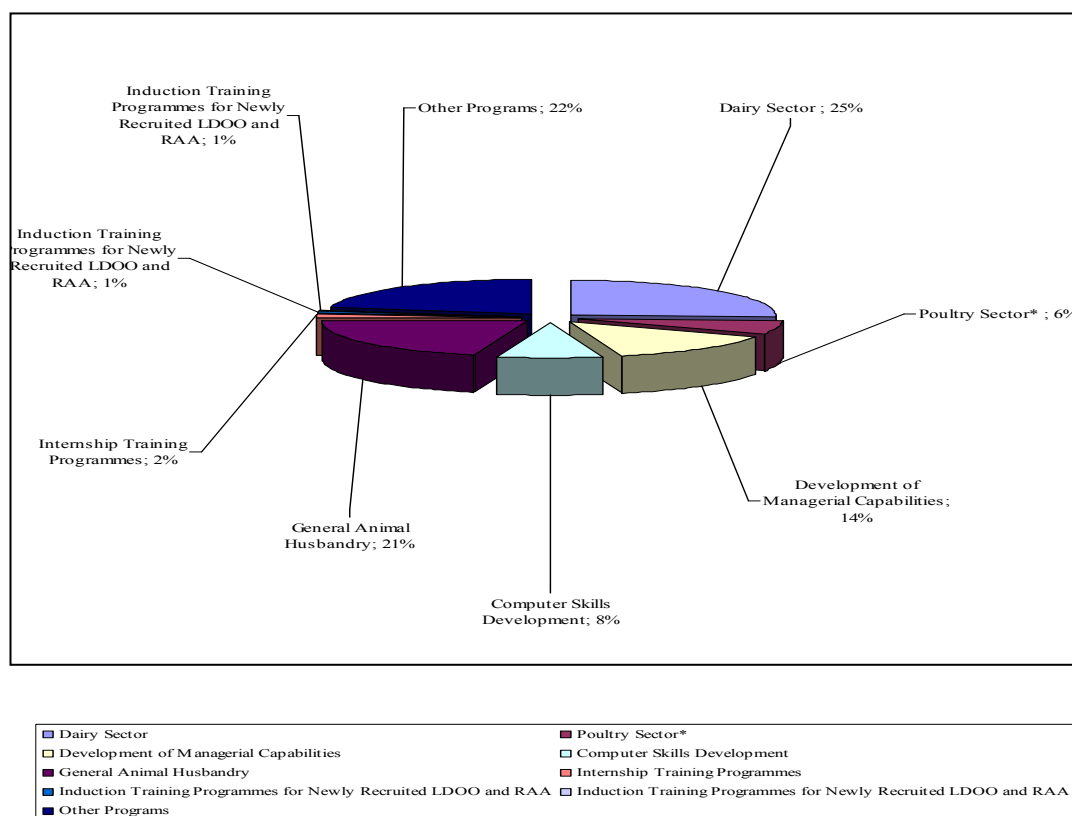


Figure 6.1: Discipline wise Classifications of training programs - 2009

b. Trainee Composition

Composition of trainees participated from Central Department, Provincial Departments and other institutions are shown below:

| Category | Number |
|--|--------------|
| AP&H Officers | 1,568 |
| LDOO & RAA | 717 |
| Development Officers | 335 |
| Management Assistants & Other Staff | 401 |
| Agricultural Teachers | 56 |
| Veterinary Undergraduates | 106 |
| Agricultural Research and Development Assistants | 975 |
| Farmers | 197 |
| Others | 1334 |
| Total | 5,689 |

6.2.2. Training at Other institutions

a. Animal Husbandry Training Centre, Seppukulama

Facilities at AHTC Seppukulama, has also been used particularly for training of farmers. 38 training programs have been conducted during the year and 893 trainees have participated in these courses. The details are as follows:

b. Training Farm, Seppukulama

The Training Farm at Seppukulama continued functioning during the year. With curtailing of funds development work of the farm had to postpone but routine production activities continued. The farm produced milk, eggs and breeding animals.

| Category of Participants | No of programs | No of Trainees |
|--------------------------|----------------|----------------|
| Farmers | 27 | 510 |
| Government Officers | 05 | 206 |
| Unemployed youths | 02 | 41 |
| Others | 04 | 136 |
| Total | 38 | 893 |

6.2.3. Co ordination with other training Institutes

ICEAPH coordinated the training programmes for department officers in other government institutes mainly at Sri Lanka Institute of Development Administration (SLIDA) and Public Service Training Institute (PSTI).

6.2.4. Veterinary Internship Training.

This Division is responsible for implementation of the Internship Training for Veterinary Graduates. One (01) internship program started during the year 2009. This program commenced on 01st September 2009 with 53 Veterinary graduates and the training will be completed on the 28th February 2010.

6.2.5. Foreign Training opportunities

Division continued procuring foreign fellowships. During the year 35 officers have undergone foreign training on various disciplines and detail information on these fellowships is given in *Annex VI*

6.2.6. Support for Post Graduate Training

Due to limited funds during the year 2009, the department was unable to support post graduate fellowships in local universities. However three (03) officers of the Department have been supported to follow short term training programmes in local higher education institutes.

6.3. Educational and Manpower Development

6.3.1. Sri Lanka School of Animal Husbandry, Karandgolla

Sri Lanka School of Animal Husbandry, Karandagolla continued conducting two (02) year Diploma programme in Animal Husbandry.

a. Academic Activities

There were 68 students in 2007 / 2009 academic year following the Animal Husbandry Diploma course in three mediums.

Composition of Diploma students of 2007 / 2009 academic year according to medium is as follows.

| Medium | Number |
|---------|--------|
| Sinhala | 40 |
| Tamil | 07 |
| English | 13 |

Seventeen (17) students of Livestock Development Instructors recruited for North and East Provinces and later registered to follow the Diploma in Animal Husbandry in Tamil Medium (academic year 2008 / 2010) were also continued their course during the year.

Academic activities of SLSAH, Karandagolla were held as follows:

- Commencement of 1st term of the second year (academic year 2008/10)
- Final Examination in Diploma in Animal Husbandry (academic year 2007 / 2009)
- Final Examination in Diploma in Animal Husbandry (academic year 2008 / 2010)
- Commencement of Project work in Diploma in Animal Husbandry (academic year 2007/2009)
- Commencement of project work in Diploma in Animal Husbandry (academic year 2008/2010)

b. Infrastructure Development

| Product | Revenue (Rs) |
|------------------------------|-------------------|
| Milk | 220,945.96 |
| Quail Eggs | 625.50 |
| Breedable and culled animals | 39,100.00 |
| Vegetables & Fruits | 15,937.50 |
| Organic fertilizer | 100.00 |
| Total Revenue | 276,708.76 |

Construction work on new administrative building has been completed during the year 2009.

c. Training Farm

The Training Farm at Karandagolla continued functioning with Dairy unit, Buffalo unit, Goat unit, Rabbit unit, Quail unit, Poultry unit, Horticulture unit and Export Agricultural Crop Unit. Production and revenue of the above units during the year 2009 were as follows:

6.4. Examinations

The HRD division is responsible for conducting examinations on behalf of the Department. As planned, 13 examinations have been successfully conducted during the year. Details of examinations conducted during the year 2009 are given below. (Table 6.2)

Table 6.2. Details of examinations conducted in 2009

| Examination | No. of Candidates |
|---|-------------------|
| Final Examination in Diploma in Animal Husbandry (academic year 2007 / 2009) | 57 |
| First Year Examination in Diploma in Animal Husbandry (academic year 2008 / 2010) | 17 |
| Final Examination in Diploma in Animal Husbandry (academic year 2008 / 2010) | 17 |
| First Examination (Repeat) in Diploma in Animal Husbandry | 06 |
| National Language Oral Exam for AP&H Officers (July) | 27 |
| National Language Oral Exam for Livestock Development Officers (July) | 11 |
| National Language Oral Exam for Research Assistants (July) | 08 |

| | |
|--|----|
| Department Examination I for Livestock Development Officers | 12 |
| Department Examination I for Research Assistants | 08 |
| Department Examination II for Research Assistants | 01 |
| National Language Oral Exam for AP&H Officers (December) | 29 |
| National Language Oral Exam for Livestock Development Officers | 06 |
| National Language Oral Exam for Research Assistants (December) | 05 |

Results of Departmental exams have been released as follows:

| Examination | No. of Candidates |
|---|--------------------------|
| National Language Oral Exam for AP&H Officers (December, 2008) | 62 |
| Final Examination in Diploma in Animal Husbandry (academic year 2007 / 2009) | 57 |
| First Year Examination in Diploma in Animal Husbandry (academic year 2008 / 2010) | 17 |
| First Year Examination (Repeat) in Diploma in Animal Husbandry | 06 |
| Final Examination in Diploma in Animal Husbandry (academic year 2008 / 2010) | 17 |
| National Language Oral Exam for AP&H Officers (July) | 27 |
| National Language Oral Exam for Livestock Development Officers (July) | 11 |
| National Language Oral Exam for Research Assistants (July) | 08 |

6. 5. Information Dissemination and Publicity

Information unit of the division carried out information dissemination, publicity and propaganda and mass media activities. This unit gave priority for promotion of income generating activities with the intention of assisting farmers and potential farmers engaged in small-scale animal husbandry and related activities. Print media and mass media were used mainly for the same purpose.

6.5.1 Print Media Activities

Printed material was mainly used to transfer technological information to users. There was a continued demand for leaflets and booklets published by the Department.

a. Publications

According to the users need, the division continued printing following material for dissemination of new technological information. It was planned for 10 new prints and 08 revised prints.

New Prints:

| Subject | Type | Medium | No: of copies |
|---------------------------------|------------|---------|---------------|
| <i>Pashu Kirana</i> (1st issue) | Newsletter | Sinhala | 10,000 |
| <i>Pashu Kirana</i> (2nd issue) | Newsletter | Sinhala | 19,000 |
| <i>Pashu Kirana</i> (3rd issue) | Newsletter | Sinhala | 10,000 |
| Pasture Varieties | leaflet | Sinhala | 7,000 |

A newsletter named “*Pashu Kirana*” was started to publish quarterly in the year 2009 and three (03) issues were printed during the period under review.

Revised Prints.

| Subject | Type | Medium | No: of copies |
|---|---------|---------|---------------|
| Bio gas Production | booklet | Sinhala | 2975 |
| Poultry Farming | booklet | Sinhala | 3000 |
| Yoghurt Production | leaflet | Sinhala | 3000 |
| Straw Treatment | booklet | Sinhala | 3000 |
| Clean Milk | booklet | Sinhala | 3000 |
| Assistance for house wives from goat production | leaflet | Sinhala | 3000 |
| Liter management | booklet | Tamil | 1000 |
| Poultry diseases | booklet | Tamil | 1000 |
| Getting benefits from back yard poultry farming | leaflet | Sinhala | 3000 |
| Artificial Insemination | booklet | Sinhala | 3000 |
| Turkey farming | booklet | Sinhala | 3000 |
| Avian Influenza | booklet | Sinhala | 3000 |
| Establishment of pasture and legumes | booklet | Sinhala | 3000 |
| Reducing of poultry death percentage | booklet | Sinhala | 3000 |
| Way to rabbit farming | booklet | Sinhala | 3000 |
| Getting benefits from swine production | booklet | Sinhala | 3000 |
| Goat farming | booklet | Sinhala | 3000 |
| Taking care of calves | booklet | Tamil | 1000 |
| A calf from every year | booklet | Sinhala | 1000 |
| Identification of heat signs in matured cattle | booklet | Sinhala | 1000 |
| Birth of a calf | booklet | Sinhala | 1000 |
| Quail farming | booklet | Sinhala | 3000 |
| Feeding of dairy animals | booklet | Sinhala | 3000 |
| Climate and milk production | booklet | Sinhala | 1000 |
| Effect of environment for egg production | booklet | Sinhala | 2850 |
| Hygienic milk | booklet | Tamil | 1000 |
| Duck farming | booklet | Sinhala | 3000 |
| Culling of chickens | booklet | Sinhala | 3000 |

Following books and Booklets were revised and handed over to the press for printing.

| Subject | Type | Medium | No: of copies |
|--------------|---------|---------|---------------|
| Cattle sheds | booklet | Sinhala | 3000 |
| Dairy Manual | book | Sinhala | 2000 |

b. Printing of Other Documents

Information unit undertook printing of urgently needed documents such as reports, printed forms of various divisions of the Department. The details are as follows. (Table 6.3)

Table 6.3: Printing (Local) of documents 2009

| Title | Type | Medium | Total No. of copies |
|---|------------------|---------------|---------------------|
| New Publications | | | |
| Monthly Updates of Goat Breeding Forms | Form | English | 500 |
| Monthly Reports (Animal Breeding Division) | Form | English | 500 |
| Application Forms to work on Holidays (for laborers) | Form | Sinhala | 500 |
| Application Forms to work on Holidays (for Officers) | Form | Sinhala | 500 |
| Farm Registration Forms | Form | Sinhala | 35,000 |
| Farm Registration Forms | Form | Tamil | 10,000 |
| Awareness Leaflet on Swine Fever | Leaflet | Sinhala | 500 |
| Invitation Cards (Opening of VIC at Nuwara Elya) | Invitation Cards | Sinhala/Tamil | 200 |
| Invitation Cards (Opening of VIC at Dambulla) | Invitation Cards | Sinhala/Tamil | 200 |
| Animal Husbandry data collection Foams (Nuwara Eliya District) | Form | Sinhala | 500 |
| Dairy Development Programme | Leaflet | Sinhala | 300 |
| Avian Influenza | Leaflet | Sinhala | 1000 |
| Animal Husbandry Training Centre, Seppukulama | Leaflet | Sinhala | 2000 |
| Certificate for Small Scale Milk Processing Training Programme | Certificate | Sinhala/Tamil | 250 |
| Invitation Cards (Inauguration Ceremony of the Commencement of Artificial Insemination Programme) | Invitation Cards | Sinhala/Tamil | 200 |
| Department Services | Leaflet | Sinhala | 1500 |
| Suitable Grass Species for Dairy Cattle | Leaflet | Sinhala | 1500 |
| Certificate for Training Programme conducted for Agricultural Research Assistant Officers | Certificate | Sinhala/Tamil | 100 |
| Invitation Cards for Livestock development Mobile Service at Puttlum | Invitation Cards | Sinhala/Tamil | 1000 |

| | | | |
|---|----------|---------------|------|
| Nomination Forms for Veterinary Council | Form | English | 3500 |
| Addressed Envelops for Veterinary Council | Envelops | English | 1500 |
| Burfi Production | Leaflet | Sinhala | 1000 |
| Lassi Production | Leaflet | Sinhala | 1000 |
| Gulamjan Production | Leaflet | Sinhala | 1000 |
| New Year Greeting Cards 2010 | Card | Sinhala/Tamil | 1000 |

c. Sale of Publications

Sales Centre of the Department has sold 39,951 Booklets and Leaflets, 88 photographs (10x12 size), 41 post card size photographs and 70 CD's during the year and has made a revenue of Rs.690, 553.00.

6. 5.2. Electronic Media Activities

Two (02) major programs carried out under the Electronic Media Activities were Radio Broadcasting and TV telecasting.

a. Radio Broadcasting Programmes

The Division continued broadcasting number of programs in various channels. During the year, 86 radio programmes were broadcasted in various radio stations as follows. This was against the 52 programmes targeted for the year.

| Programme name | Radio Station | Number of broadcasts |
|-------------------|-------------------------|----------------------|
| " Sathwarawayaya" | National Service (SLBC) | 80 |
| Others | Régional Services | 06 |

b. TV Programmes

As TV plays a dominant role in mass media nowadays, the division continued telecasting TV programmes. During the year, eight (08) TV programmes were telecasted in channels of Independent Television Network (ITN) and National Rupavahini. This was against the six (06) Programmes targeted.

| Programme | Channel | Number |
|-----------|---------|--------|
| Arunella | ITN | 08 |

c. News Releases

Altogether 42 news items (target-24) written on Animal Husbandry related subjects have been broadcasted /telecasted.

d. Production of Audio Visual Material

This unit provides video production and duplication services on request. 64 video films (target- 60) and 75 VCD's were duplicated and issued during the year to meet the demand from the livestock sector. This demand was mainly from NGOs involved in Livestock Development activities and from Schools.

6. 5.3. Exhibitions

The HRD Division participates in exhibitions at National and Regional level. Information about exhibitions participated during the year 2009 are given in table 6.4 . This achievement is against the target of four (04) exhibitions planned for the year.

Table 6.4: Exhibitions conducted in 2009

| Category | Venue | No. of programs | No. of Days |
|----------------|------------------|-----------------|-------------|
| National Level | Colombo | 01 | 07 |
| | Agunakolapelessa | 01 | 05 |
| | Puttlum | 01 | 01 |
| | Polonnaruwa | 01 | 04 |
| | Beliatta | 01 | 05 |
| | Colombo | 01 | 03 |
| | Colombo | 01 | 03 |
| | Galle | 01 | 05 |
| Regional Level | Narammala | 01 | 05 |
| | Anuradhapura | 01 | 02 |
| Total | | 10 | 40 |

The Division also continued extending assistance to Provincial Departments of Animal Production and Health to conduct Exhibitions by providing exhibits and Department publications.

6.6. Self- Employment support and Entrepreneurship Development.

The Self Employment Support Training Scheme is an important and highly promising programme carried out by the Division. Farmers and unemployed youth, who wish to be engaged in Animal Husbandry and related activities on self-employment basis, directly benefits through this programme. For unemployed youth 12 new self-employment programs and for entrepreneurs eight (08) follow-up programs were targeted.

There were 450 trainees targeted for the year under this programme. Details of the training conducted during the year are given below.

Basic Training for Self Employment

| Topic | Venue | No. of Programmes | No. of Participants |
|-----------------------------|--------------|--------------------------|----------------------------|
| Small Scale Milk Processing | Walapane | 01 | 76 |
| Small Scale Milk Processing | Seppukulama | 03 | 84 |
| Small Scale Milk Processing | Puttlam | 01 | 30 |
| Small Scale Milk Processing | Welikanda | 01 | 150 |
| Dairy Cattle Management | Seppukulama | 01 | 17 |
| Total | | 07 | 357 |

a. Follow up Technical Training Programmes

| Topic | Venue | No. of Programmes | No. of Participants |
|-----------------------------------|------------------|--------------------------|----------------------------|
| Positive Thinking | ICEAPH/Gannoruwa | 01 | 79 |
| Poultry litter and organic manure | Makandura | 01 | 15 |
| SLS Standards for Yoghurt | ICEAPH/Gannoruwa | 01 | 75 |
| Business Management | ICEAPH/Gannoruwa | 02 | 74 |
| Total | | 05 | 243 |

Under the Self- Employment support and Entrepreneur Development, 58 farms and processing centers have been visited by the staff during the year to help them developed as entrepreneurs. Similarly, 14 business promotion programmes have been undertaken to motivate young entrepreneurs to enter into business ventures of animal husbandry and related fields.

Fig. 6.1. Self Employment Training

To catering to the needs of young entrepreneurs, the division participated in ten (10) job markets and exhibitions organized by various organizations and institutes during the year 2009.

The records at the division reveals that around 1000 individuals have contacted the division through telephone for technical advice and information.



6.7. The Department Library

The Department Library continued serving as the National level Library for Livestock Development and Veterinary Science to Department officers, University students and various other individuals who search for information.

Membership

The Library issues membership only to the DAPH officers and there were 250 members as at the end of the year 2009.

Accession

During the year library purchased journals and books utilizing Rs. 3 million allocated under voted funds.

The following foreign journal titles were purchased through the agent SWETS.

- Animal science
- Asian Australian journal of Animal Science
- Veterinary Record and In Practice
- Research in Veterinary Science

- Tropical Animal Health and Production
- Buffalo Journal
- Indian Journal of Poultry Science

In addition to above mentioned foreign journals Central Bank Reports were also purchased during the year 2009.

Literature searches

Computer based literature searches were carried out by the library on user request using Vet CD and beast CDs and other CDs related to the Animal Science. During the year a number of literature searches had also been done through Internet on user request.

The librarian was appointed again as a member of AGRINET advisory committee in 2009. During the year she has participated in several AGRINET meetings, user seminars which were conducted by the CARP and the National Science Foundation. Several awareness programmes were organized by the library to educate farmers about procedures of collecting information from institutional libraries.

During the year the library has arranged for its users, 20 content pages of Journal titles and 100 articles through AGRINET Library network. Besides, number of reprints from books and Journals from universities and Institutional Libraries were arranged for the library users.

6.8. Finance and Expenditure.

The Division functions on the funds provided from the consolidated fund, through vote 292 - 02 - 03. The total allocation for the year was Rs 45.985 million and out of which Rs 13.09 million was for recurrent expenses and the balance Rs 32.9 million was for development work under capital expenditure.

| | Allocation (Rs) | Expenditure (Rs) | Expenditure % |
|------------------|------------------------|-------------------------|----------------------|
| Recurrent | 13,085,000.00 | 12,862,588.62 | 98.30 |
| Capital | 32,900,000.00 | 18,894,470.00 | 57.43 |

Though the total allocated amount of Rs 32.9 million is for capital expenditure, the actual expenditure recorded was 57.43 % of the allocation. The poor performance in utilization here was due to slow progress in construction work at Karandagolla which was beyond the control and due to reasons such as unfavorable weather conditions

7. LIVESTOCK PLANNING AND ECONOMICS DIVISION

The Livestock Planning and Economics (LPE) Division is responsible for planning, monitoring and evaluation of livestock development programs and activities implemented by the Department to support development of the livestock sector in Sri Lanka. LPE division maintains the National level Databank to collect and compile livestock statistics and data which are accessible to the DAPH staff, researches, university students and the general public. The *Data Processing Unit* responsible for data entry, analysis and preparation of reports/documents for the data bank, Ministry of Livestock Development and other organizations.

Main responsibilities of the division are as follows:

- Identification and formulation of livestock development programmes and projects;
 - Monitoring , evaluation and economic analysis of livestock development programmes and projects of the department ;
 - Conduct economics studies to assess feasibility and viability of livestock development programmes 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 programmes with provincial DAPH and other state institutions and organizations;
 - Human resource development of the division; and
-
- Staff management, financial management and general maintenance of the division.

7.1. Identification and Designing of Livestock Development Programmes 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.

7.1.1. Projects for the National Budget- 2010

Under this, three (03) new projects were formulated and cabinet papers prepared in collaboration with respective divisions /officers. These projects have been forwarded to the Department of National Planning for consideration and, to be forwarded to the Treasury.

Details of those projects are as follows:

- Establishment of modern vaccine production laboratory for Foot and Mouth Disease (FMD) in Sri Lanka.
- Establishment of Animal Husbandry Training Centres at Kilinochchi and Mulathiv.
- Evolving synthetic breeds of dairy cattle using a local strain as a base population to suit the low input farming system in Sri Lanka.

Furthermore, project proposals for 15 on-going projects of the DAPH for continuation for the year 2010 were reviewed; forwarded and necessary approvals have been obtained. Details are in *Annex VIII*

7.2. Monitoring, Evaluation and Economic Analysis of Livestock Development Programmes and Projects of the Department.

7.2.1 Physical and financial progress review of Departmental programs

a. Action plan and Progress

Action plan for physical and financial progress review of the DAPH was prepared for the year 2010. The physical and financial progress was monitored monthly on the thrust area basis and reports were submitted to the Ministry for monthly progress review meetings.

Due to financial restrictions imposed, progress of capital expenditure utilization of the DAPH had been 34.0% in 2009. This is a much lower figure when compared with the previous year's progress of 52.4%. The progress of utilization of recurrent funds was 92.0% in 2009, which is higher than the corresponding figure of 88% in the year 2009. The details are given in *Section 10*, under the Finance division

b. Progress Review Meetings of the department

Physical and financial progress of departmental programmes is reviewed at progress review meetings represented by respective Directors and relevant officers of divisions. Four (04) such meetings were coordinated by the LPE division during the year.

c. Mahinda Chinthana Programme

Dairy Sector has been identified as the priority area for development in the livestock sector under the present government policy; *Mahinda Chinthana*. programmes and activities Implemented by the DAPH pertaining to dairy sector has been included under this and progresses of these programmes were reported to the Ministry to be forwarded to the Ministry of Plan Implementation.

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

a. Activity Monitoring through Master Returns

Activities of Provincial DAPH are monitored through *Master Returns* submitted monthly by divisional veterinary offices in the country. The newly prepared master return was used to facilitate efficient and effective data collection and progress monitoring in the year 2009.

Following information were processed and monitored, and the analysis reports were prepared to be communicated to Provincial DAPH.

Dispensary and Field Cases
Artificial inseminations
Health Certificates issued
Immunizations
Pasture and Fodder establishment
Training/field days conducted
Loans and Insurance
Farms Registered

Analyses of selected data are given in *Annex. IX* Data on Animal Health and Animal Breeding activities are given separately under Sections on Animal Health and Animal Breeding divisions respectively.

b. Collaborative preparation of Master Plans.

Programs and projects implemented by provincial departments should continue for few years in order to evaluate the impact of those. However most of livestock development programs implemented in provinces are subject to change year by year due to demand from different funding sources as well as stakeholders. Therefore it is difficult to evaluate impact of annual development programs. As a solution for this issue, the LPE division discussed with relevant provincial directors on ways of continuing development programs amidst various demand for different types of programs in every year. It was highlighted that designing of a master plan for an identified period could accommodate feasible development programs identified by the PDAPH or requested from stakeholders.

On the request of Provincial Director PDAPH, Uva province was selected for this purpose on a pilot basis. Preliminary discussion was held with Provincial director and District Veterinary Surgeons to identify resources, statistics etc to work out the plan with necessities. Subsequently a brainstorming session was conducted with all Veterinary Surgeons and Livestock Development Instructors of the province and a SWOT analysis done. Based on the outcome of those discussions and sessions, strategies and main programs were identified and a draft plan was prepared with provincial officers. Detail activities are being worked out at present by provincial officers considering available resources and possible avenues in the future.

7.3. Economic Studies, Surveys, Pilot Projects.

One of the main functions of the division is to conduct economic studies, surveys, rapid appraisals and pilot projects to support policy formulation and for future planning pertaining to livestock sector.

a. Socio Economic Impact of Self Employment Development Program

Self Employment Development Programme is one of the highly popular development programmes in the DAPH. It is implemented by the HRD division of the DAPH and over 1200 youth have been trained under this programme over the recent past. Therefore, it was become necessary to evaluate this program to assess the socio economic impact against disbursement of funds.

Initially a postal survey was carried out by sending a structured questionnaire to program beneficiaries of the period from 1996 to 2004. A total of 1,384 questionnaire forms were posted and 354 responded. Details of all respondents were categorized into two (02) main groups based on their present involvement in animal husbandry activities. A total of 30 respondents who are presently engaged in animal husbandry activities were selected for this study and visited to collect further information.

Results revealed that around 52% of beneficiaries have made further improvements to their existing animal husbandry activity after obtaining the training through this programme. The initiation of new self employment ventures by previously non occupants were 43% of the total respondents. The analysis revealed that the problems related to non initiation vary. Lack of capital is the main problem for 59 % of total respondents. Difficulty in accessing bank loans was a problem for 35 % of the respondents. Difficulty in purchasing raw material, non availability of land, and lack of marketing opportunities were indicated by 29%, 22% and 16% of respondents respectively.

Eventhough the leaving rate is somewhat high, profitable new enterprises have been developed as milk processors, poultry farmers, and dairy farmers etc. as a result of self employment development program, implemented by the DAPH.

b. Rapid appraisal of local Maize Industry and the effect of prevailing taxes on the poultry Industry

Problems faced by domestic maize industry, increased CESS on maize and poultry feed production were discussed at many forums during the first part of the year 2009. Thus, the DAPH was requested to conduct a rapid appraisal and make recommendations to the Ministry.

The appraisal was carried out by the LPE division in March 2009 in collaboration with officers from Laws and Regulations Implementing Unit (LRIU) of the DAPH. Field visits were made to major maize growing areas in Anuradhapura and Moneragala Districts to collect information from maize cultivators, collectors and processors through a questionnaire. Information was also collected from small-medium scale feed mixers and poultry farmers in Kuliypitiya and Hettipola areas. Large-medium scale feed millers and poultry producers were interviewed over the phone.

Recommendations containing immediate measures to rectify the then situation and short term and long term measures were formulated and forwarded to the Ministry for consideration.

b. Cost Benefit Analysis (CBA) of Foot and Mouth Disease.

Foot and Mouth disease is endemic in Sri Lanka. A control program is being implemented by the DAPH to minimize losses due to this disease. The direct cost incurred for annual FMD control (programm) is around 20 million rupees and it is around 10 percent of the total annual capital budget of the DAPH. Therefore, a study was planned to estimate the cost and benefits on FMD control program in Sri Lanka.

A sample survey was carried out in farms infected with this disease during 2008 and 2009 to develop essential parameters to estimate the cost and benefits of FMD control program. Parameters established under this survey are summarized below briefly.

The cost benefit study is currently being done. There were no outbreaks of FMD in intensive dairy management systems during end 2008 to mid 2009. Results revealed that on an average 50 % of the milking herd, 10% dry cows , 20% of the heifers and 30 % of calves had got the infection in extensive management system and only 13 % of milking herd ,12 % of the heifers , 20% dry cows and 01 % of calves were infected in commercial semi intensive system. The total deaths out of infected animals were 12 % in extensive system and that was 04 % in commercial semi intensive system. The milk production loss per farm even after three (03) months following the occurrence of this disease was higher (41.4 %) in extensive system than the semi intensive management system (11.2 %). However, the treatment cost per infected animal was higher (Rs. 54.39) in semi intensive management system than that of extensive system (Rs. 9.25).

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

Availability of reliable statistics is one of the main prerequisite for any planning, reviewing pertaining to the livestock sector. This is also one of main responsibilities of the LPE Division which is carried out by the data processing unit and the data bank.

7.4.1. Data Collection, Compilation and Management

Data collection system was further strengthened during the year 2009. Data on livestock population, production, prices, imports and exports etc were collected and compiled on *Industry- basis* for the last ten (10) years in the form of publications. Initiatives were taken by the division to convert this as an electronic livestock statistical database. This task was completed in 2009.

a. Milk Collection

Data on the milk collection by leading organizations contributing to formal milk market was collected for the year 2009. Milk collection by ten (10) key organizations in the year 2009 totalled 122.7 million litres and from this 35.8% and 20.2% collected from the Central Province and the North-Western Province respectively. District -wise milk collection data for the year 2009 is given in *Annex X1*

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 2009 were obtained from Sri Lanka Customs and analysed. Quantities of Dairy products , Meat and Meat products imported into the country in 2009 totalled 63,873 MT and 1,285 MT with the value of Rs 18.6 billion and Rs 161.16 million respectively.

A total of 27,200 MT of maize has been imported into the country during the period under review with a value of 729 million rupees. Total fish meal imports in 2009 had been 21,886 MT costing Rs 1.7 billion.

c. Market information

Market information on purchasing price, wholesale price, and retail prices of livestock products were continued to collect for analysis and dissemination of information. Eggs and chicken meat prices were collected weekly from Kandy and Colombo town to study market fluctuation of prices. Prices of feed ingredients and livestock products were collected weekly from wholesale/retail markets in Colombo through Animal Quarantine Office. Initiatives were taken in 2009 to collect prices of meat, meat products, portions and dairy products from leading super markets in Kandy. Island-wide market prices of livestock produce quoted in weekly News Bulletin published by the HARTI were also analysed. Average retail prices of livestock products in Kandy and all-island are tabulated

Table 7.1: Average Retail Prices of Eggs and Chicken Meat - Kandy and All-island

| Month | Kandy | | | All-Island | | |
|-----------------|----------------------|----------------------|-----------------------|----------------------|----------------------|-----------------------|
| | Brown Eggs Rs/egg | White Eggs Rs/egg | Chicken meat Rs/kg | Brown Eggs Rs/egg | White Eggs Rs/egg | Chicken meat Rs/kg |
| Jan. | 9.95 | 9.57 | 287.00 | 10.53 | 10.36 | 318.49 |
| Feb. | 8.73 | 8.38 | 281.88 | 9.63 | 9.11 | 309.90 |
| Mar. | 7.70 | 7.40 | 285.00 | 8.87 | 8.54 | 289.35 |
| Apr. | 8.47 | 8.14 | 289.50 | 8.89 | 8.42 | 302.96 |
| May | 9.99 | 9.55 | 298.75 | 9.12 | 8.81 | 309.82 |
| Jun. | 11.55 | 11.05 | 310.00 | 11.54 | 10.87 | 323.95 |
| Jul. | 10.45 | 10.15 | 309.38 | 11.98 | 9.56 | 330.28 |
| Aug. | 9.16 | 8.80 | 295.63 | 9.28 | 8.69 | 290.47 |
| Sep. | 12.05 | 11.59 | 302.50 | 11.74 | 11.18 | 327.64 |
| Oct. | 12.23 | 11.94 | 302.50 | 12.38 | 11.72 | 329.41 |
| Nov. | 10.93 | 10.58 | 304.38 | 11.33 | 10.99 | 323.99 |
| Dec. | 14.19 | 13.51 | 310.00 | 11.33 | 10.99 | 323.99 |
| Average. | 10.45 | 10.05 | 298.04 | 10.55 | 9.93 | 315.02 |

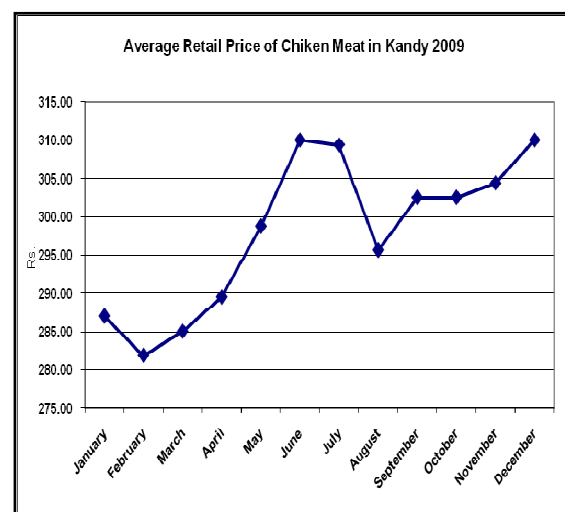
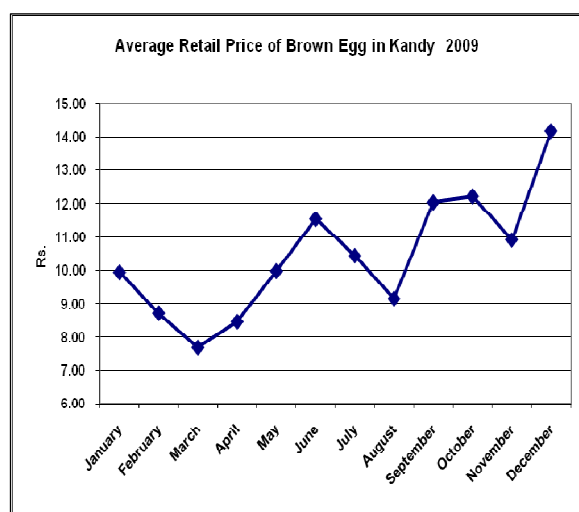


Figure 7.1: Average Retail Prices of Eggs and Chicken Meat - Kandy Town 200

Annual average retail prices of one KG of Beef, Broiler chicken, Mutton and Pork were recorded as Rs 343.74, Rs.315.02, Rs. 660.84 and Rs 393.48 respectively (Table 7.2)

Table 7.2: Annual Average Retail Prices of Meat (All-island) 2009

| Month | Rs/kg | | | |
|------------|---------------|---------------|---------------|---------------|
| | Beef | Chicken Meat | Mutton | Pork |
| Jan. | 326.83 | 318.49 | 613.61 | 431.25 |
| Feb. | 295.00 | 309.90 | 672.67 | 401.67 |
| Mar. | 300.00 | 289.35 | 704.81 | 411.43 |
| Apr. | 344.14 | 302.96 | 574.67 | 395.71 |
| May | 328.63 | 309.82 | 674.61 | 339.38 |
| Jun. | 309.03 | 323.95 | 669.31 | 436.44 |
| Jul. | 347.46 | 330.28 | 688.75 | 385.35 |
| Aug. | 340.59 | 290.47 | 658.75 | 391.43 |
| Sep. | 344.19 | 327.64 | 683.75 | 387.03 |
| Oct. | 333.85 | 329.41 | 543.61 | 243.33 |
| Nov. | 427.57 | 323.99 | 722.75 | 389.38 |
| Dec. | 427.57 | 323.99 | 722.75 | 389.38 |
| Ave | 343.74 | 315.02 | 660.84 | 383.48 |
| Min | 295.00 | 289.35 | 543.61 | 243.33 |
| Max | 427.57 | 330.28 | 722.75 | 436.44 |

Source- Weekly bulletin -HARTI

d. 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, University/Diploma students and private entrepreneurs.

The data bank has been utilized by 120 users in 2009. Ten (10) new reports, 70 journals and bulletins were received during the year.

e. Dissemination of data/statistics

Important livestock statistics and findings of surveys, studies conducted by the division need to be communicated to relevant officers and organizations and stakeholders. In view of this a new

Publication, *Livestock Statistics Bulletin* was compiled and published by the division in 2008. Two (02) issues of this Bulletin were released during 2009 and survey findings, reports on cost of production and latest livestock statistics were communicated to DAPH and related organizations, through this publication.

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

Several livestock development programmes are jointly implemented by the National and Provincial DAPH and technical back-up services and inputs are mostly provided by the National DAPH.

7.5.1. Provincial Director's Meetings

LPE division organizes and coordinates Provincial Director's meetings to review on-going livestock development programmes and to discuss on administrative and financial matters. Two (02) such meetings were held during the year 2009.

7.5.2. Special Livestock Development Projects

a. Registration of Livestock Farms

Livestock farms (excluding poultry)

Lack of proper data on the distribution and composition of livestock farms had been a continuous problem in the past. The livestock farm registration programme was implemented in 2008 to collect statistics on livestock farms maintain at each Divisional Veterinary Range and register livestock farms with respective divisional veterinary offices. This programme was coordinated by the LPE division and implemented by the PDAPH through divisional veterinary offices. The progarmme has been successfully completed in the year 2008 and 80% of livestock farms were registered with respective veterinary ranges.

A comprehensive data base on basic data (herd structure, milk production, milk sales, consumption, number of pigs, goat, sheep, etc.) has been prepared for each province /District in the year 2009 and distributed to MLD and PDAPH in electronic form. (CD) for future livestock planning activities.

Poultry farms

Poultry sector is dynamic in nature subject to frequent fluctuations. Due to lack of information on poultry farms in Sri Lanka the LPE division initiated a progarmme to register poultry farms in the country during latter part of year 2009 , This progarmme which is being funded by the HPAI project.(World Bank funded) will be continued in year 2010.

c. Veterinary Service Improvement Program

At present a majority of livestock development programs planned by the National DAPH are implemented by Provincial DAPH through regional functional units, namely divisional veterinary offices. Thus, these offices should have basic facilities to render efficient and effective services to implement development programmes and activities. As an initiative, project to improve services of provincial veterinary offices was commenced in year 2008 as a ten (10) year development plan aiming at improving infrastructure facilities of veterinary offices.

Due to financial limitations, planned programme could not be implemented as it is in 2009. However, 25 motor cycles were procured and provided to veterinary offices in the Northern Province to be used for Artificial Insemination Service.

7.6. Reports/ Publications

The division compiled following publications/reports during the year 2009:

- Physical and Financial Action Plan 2009- DAPH
- Action Plan 2009- LPE Division
- Annual Report -2008
- Monthly physical and financial Progress Reports of DAPH
- Livestock Development Projects-2009
- Progress Reports for *Mahinda Chinthana Programme*.
- Budget Report DAPH; Progress for 2009 and Plans for 2010
- Annual Report 2008- Livestock Sector performance (for the Central Bank)
- Quarterly Reports- Livestock data (for the Central Bank)
- Quarterly Reports- Livestock data (for the Department of Census and Statistics)
- Action Plan DAPH -2010
- Livestock Statistics Bulletin: *Volume 2, Issue 1 and 2*
- Study Reports:
- Cost of production of pork under deferent production systems.
- Cost of production of milk under different agro- climatic zones of Sri Lanka
- Report on rapid appraisal of maize industry in Sri Lanka

DAPH Website.

Initiatives were taken to revamp the official website of the DAPH, www.daph.gov.lk in the year 2009 in collaboration with the ICTA.

7.7. Capacity Building of Staff.

Training of LPE Staff

Training needs of the LPE staff were identified at the beginning of the year and facilitated training on the various fields according to their field of working. Two (02) officers from LPE division undergone foreign training in 2009 and all officers were trained locally on various subjects in relation to the duties they have been assigned.

7.8. Other Activities

7.8.1. E Government Program

Livestock Planning and Economics (LPE) division is responsible for the correspondence regarding Lanka Government Network (LGN) and Government Information Centre (GIC). Dr.K.D.Ariyapala of the LPE division works as Chief Innovation Officer (CIO) for ICTA. Details of activities implemented under the E-Government program is appeared under the chapter 13 of this report.

7.8.2. Participation as resource persons by the LPE staff

Officers in LPE division participated in training programmes as resource persons on various subjects related to their present duties and responsibilities. Six (06) officers namely Dr P.Wijewantha (Director/LPE), Dr .K. D.Ariyapala (VS), Dr .K .A. C. H .A .Kothalawala (VS), Dr K. M .H. G. Sarath Priyantha(VS), Mr N. Samarakoon (Statistician) , Ms.Mala Wickaramasigha (LDO), and Mr Dilshan Kumara (DO) participated as resource persons in programmes organized by the DAPH and other organizations during the year 2009.

7.8.3. Elephant Tranquilization

The Elephant Tranquillisation Unit of the DAPH, coordinated by this division, continued to provide services in giving protection for elephants used in religious and other kinds of processions. Veterinarians attached to the DAPH participated in this activity and, during the year 2009 protection was given to ten (10) processions in various regions island wide.

7.9. Management of the Division

7.9.1. Progress review of divisional programmes/ activities

Progress of the performance of the division / officers were reviewed regularly at monthly meetings. Eight (08) such meetings were held during the year 2009. Accordingly, programmes were improved and officers actively participated in implementing programmes/activities identified by the division for the year 2009.

7.9.2. Financial Progress

Total allocation of capital budget for the LPE division was Rs 650,000.00 and 69% of this budget was utilized during the year. From the allocated amount of Rs 1, 541, 000.00 of the recurrent budget 80.24 % was used in 2009

8. LAWS AND REGULATIONS IMPLEMENTING UNIT

Implementation of statutory provisions made under the Animal Diseases Act and Animal Feeds Act are handled by the Laws and Regulations Implementing Unit (LRIU), functioning directly under the Director General, DAPH.

Functions of this unit are managed by the staff attached to the Head Office, Peradeniya and, the Animal Quarantine Station (AQS) Colombo.

8.1. Animal Quarantine and Inspection Service

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. The Director General, DAPH is empowered to authorize import of live animals, animal products, animal by-products, and therein procedures under the provisions of Animal Diseases Act No. 59 of 1992. In order to facilitate imports, a system of obtaining approval prior to importation is in place. The export of live animals, animal products, and animal by-products has been delegated to the Chief Animal Quarantine Officer (CAQO). The Animal Quarantine Station (AQS) is located at Morgan Road, Colombo and a sub unit has been established at the Bandaranaike International Airport (BIA), Katunayake.

8.1.1. Quarantine Facilities available at Ports

Quarantine facilities available at AQS, Colombo are as follows:

| Type of Animal | No. of Animals that can be quarantined. |
|-----------------------|--|
| Cattle | 50 |
| Buffalo | |
| Goat /Sheep | 200 |
| Horses | 10 |
| Birds | |
| Large | 30 - 50 |
| Small | 75 - 100 |

As limited space is available at the quarantine station, timely reservation of the quarantine space is required by the importers.

8.1.2 Import of Animals, Animal Products and By Products

Due to the global threat of HPAI, import of Aviary birds were temporarily banned in 2004 and the ban continued in 2009 as well. Restriction on import of Day old chicks (DOC) and chicken feathers were lifted during the year from HPAI free countries.

Poultry

Consignments of DOC are released to importers under the quarantine surveillance agreement and monitored by the weekly reports sent by the importer. As part of the active surveillance programme (HPAI preparedness programme) imports were closely monitored clinically and laboratory testing was done twice within the period of surveillance. (First week from AQS / Katunayake, and fourth week from AQS/Colombo).

Serum samples and cloacal swabs were 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 infections.

HPAI surveillance programme was carried out on the imported DOC by the AQS, Colombo and Katunayake, and all samples were found to be negative. Details are given below. (*Table 8:1*)

Table 8.1: HPAI Surveillance Programme 2009-laboratory test results

| No of farm visits | Total no of samples sent to the laboratory | Test results for |
|--------------------------|---|-------------------------|
| 19 - (AQS,Colombo) | Cloacal swabs-380 Blood samples-380 | Negative |
| 35- (AQS,BIA Katunayake) | Cloacal swabs-1820 Blood samples-700 | Negative |

Trial batches of parent chicks under quarantine surveillance:

Day old parent chicks imported from a new source flock are treated as a *trial batch* and monitored closely. These batches are kept under quarantine till 16 to 18 weeks and tested for HPAI, Pullorum disease, Fowl typhoid and Mycoplasmosis. The batch is monitored for flock performance, vaccine response and to check the freedom from prescribed diseases. There were no new poultry breeder farms registered in year 2009;

Salmonella surveillance program

Salmonella surveillance programme was carried out on the imported DOC by the AQS, Katunayake, during the year. A total of 111 samples (dead birds and beddings) taken from 56 consignments of DOC were dispatched for laboratory tests and found to be negative.

Ornamental Fish

Obtaining approval prior to import of fresh water ornamental live fish was strictly adhered during the year. Imports were inspected at the port of entry and fish and water samples were sent to VIC, Welisara to check for parasites and bacterial diseases.

Freedom from OIE listed 06 viral diseases is required for import of fresh water fish into Sri Lanka. Similarly, EU countries require certification on the accompanied International Veterinary Health Certificate (IVHC) that the Sri Lanka is free from those 06 viral diseases, for export of ornamental fish.

During the year, 15 live fish samples from Animal quarantine Station, Colombo and 14 live fish samples from Animal Quarantine office BIA Katunayake were dispatched to the CADDR (Center For AQUATIC Animal Disease Diagnosis and Research) for laboratory diagnosis of Viral diseases. All the samples were found to be negative.

Quarantine of imported live fish consignments at a separate isolated Quarantine area was practiced in 2009. Following importation, packing water was safely disposed in the presence of an AQO at the importers premises.

Pet Animals

Though airlines and embassies were reminded repeatedly not to accept the pets without the import approval from DG/DAPH there were instances in 2009 as well, where pets were imported without the prior approval.

Due to reported occurrence of *Rabies* during quarantine period in UK following importation of a consignment from Sri Lanka in a previous year, strict measures were taken regarding Anti Rabies vaccination when issuing the export certificate for pets.

Bristles, Hair, Feathers

The imported products, by products were fumigated / treated before they enter into the country to minimize the risk of introducing HPAI. 53 consignments containing *Bristles, Leather, Feather, Horse hair, Nails, Leather, hide, Fur felt hat bodies* were fumigated with formaldehyde gas during the year 2009.

Frozen Fish

The necessity of obtaining prior import approval of DG/DAPH for food fish was introduced in the year 2005 and continued thereafter. Documents were screened, consignments inspected and released to the owner following inspection. Samples were sent to MRI for laboratory testing. During the year, 321 consignments containing 9246.82 MT of frozen fish were imported to the country. 16 importers were informed about test results produced by the MRI, and steps were taken to withhold the relevant supplier.

BSE Clearance

The ban on import of BSE risk items from BSE positive countries were in force in 2009 as well. Albuminoids, gland and organ secretions, heparin related substances, pharmaceuticals, diagnostic substances, surgical items, blood grouping reagents, food related items, feed related items were screened for BSE. High and medium risk items require prior import approval from DG/DAPH and other items were screened by the CAQO. During the year under review, a total of 647 consignments were screened by the Animal quarantine station.

8.1.3 Post import quarantine Activities

a. Quarantine Holdings:

Quarantine holdings (other than the AQS) and the period of quarantine for large/zoo animals in 2009 are given in *Annex .1X*

b. Import and quarantine surveillance

Details of consignments that were under quarantine surveillance in 2009 are given in *Annex X*

Measures taken at ports of entries to prevent entry of HPAI into Sri Lanka -

All import of poultry, poultry products were either temporarily suspended / carefully scrutinized before imports;

A special counter was maintained at the arrival lounge at BIA/Katunayake, requesting passengers who have visited the poultry farms to register their names and addresses at the counter; All DOC consignments were closely monitored (farms inspected at least twice within the surveillance period apart from the weekly reports); and Samples collected and screened for HPAI (at the port, during on-farm quarantine inspections).

Consignments Detained or / and Destroyed/re-exported in the Year 2009

Consignments of Animals, Animal Products and Animal By-Products that were not allowed to enter into the country due to non-conformity with our import health requirements were either re-exported, detained or destroyed. *Annex X1* provides details of consignments which were not allowed to enter into the country in 2009.

8.1.4. Inspection of Animal Feed Mills

Under the Animal Feeds Act provisions are made to facilitate import, export, processing, and local sales of animal feeds. As Authorized Officers appointed under the same Act, AQO's participated in inspecting two (02) feed mills for renewal of annual registration and to make one (01) visit following a complaint. Shortcomings in the mills were discussed, advised feed millers accordingly and communicated to Registrar, Animal Feeds for future improvement and further action.

8.1.5 Exports

a. International Veterinary Health Certificates for Meat

International Veterinary Health certificates are issued for export of meat of animal (domestic) origin such as Bovine, Bubaline, Equine, Ovine, Caprine, Porcine and Avian species and ornamental fish by the CAQO, following inspection. It is mandatory that the processing establishments should at least have the provisional registration from the DAPH in order to export meat from Sri Lanka. The said establishments should get the International Standards Certification; Hazard Analysis and Critical Control Point System (HACCP) within three (03) years after obtaining the provisional registration.

Meat processing establishments namely, *Keels foods, Ekala, Ceylon Agro Industries, Seeduwa, Bairaha farms Ltd, Pasyala, Maxies and Company (Pvt.) Ltd, Wennapuwa, Norfolk Foods, Homagama, New Anthony's Food Products, Hanwella and Cargills Food Products Pvt Ltd* have already obtained HACCP certification. Certification for Good Management practices (GMP) has been obtained by *Gills Food Products Pvt Ltd Wattala* in year 2008.

Surveillance audits were carried out twice a year for these establishments and registrations renewed. *D and W foods (Pvt.) Ltd, Pannala* has obtained HACCP certification during the year 2009. Animal Quarantine Officers served as technical experts in 12 HACCP audits during the year 2009.

Details of Health Certificates issued by the CAQO in 2009 for export of Animals and Animal Products and Animal By-Products, are given in *Table 8*.

Table 8.2 : Health certificates issued for export- 2009

| Item | No. of Health Certificates issued |
|--------------------------------|--|
| Ornamental fish | 3175 |
| Dogs | 140 |
| Cats | 49 |
| Poultry | 11 |
| Zoo animals | 06 |
| Goats | - |
| Rabbit/Rat/Hamsters/Guinea pig | 04 |
| Animal Products(Meat) | 966 |
| Table eggs | 117 |
| Fish and Fish products | 123 |
| Animal by-products | 250 |
| Prawn/Crabs/Lobsters | 166 |

b. Exports during Year 2009

Details of export of Animals, Animal Products and Animal By-Products are given in *Annex X11*

c. Export certification of hide/skin-

Determination of the stage of process of hides/skin by the Industrial Technology Institute (ITI) laboratory was initiated in 2008. A total of 32 samples were sent to the ITI in 2009 and the results are as follows

| No of samples sent | Stage of process | Remarks |
|---------------------------|---|----------------------|
| 32 | Cow crust leather-18 Finished leather-14 | Exported Exported |

8.2 Regulatory Activities- Poultry Industry

The Laws and Regulations Implementing Unit (LRIU) of the Department handles regulatory activities pertaining to Poultry and Aviary industries.

8.2.1. Establishment of New Poultry Breeding Farms

During the year 2009, three (03) applications were received by the Department to establish new poultry breeding farms.

8.2.2 Registration of Existing Breeding Farms

Registration of 31 poultry breeder farms was renewed during the year and renewal certificates were issued.

8.2.3 Monitoring of Hatcheries / Poultry Breeding Farms

Data pertaining to production and the performance of poultry breeder farms were regularly collected and analyzed. 31 breeder farms were visited during the year.

Meetings were held with them on the control of *Pullorum disease/ Fowl typhoid* in poultry breeding farms. Three (03) progress review meetings were also held at the DAPH, Peradeniya with department officers who are involved in this programme. Implementation of the control programme (testing , monitoring and verification of breeder flocks) is being carried out by the Veterinary Investigation Officers attached to the Animal Health division. Testing in grand parent farms was done by the Bacteriology division of the Veterinary Research Institute.

8.2.4 Import of Live Poultry

Grand Parent/ Parent birds are currently being imported from five (05) hatcheries/ breeding farms located in four (04) countries. During the year, 79 applications received by the Department to import broiler Grand Parent/ Parent/parent and layer parent birds were reviewed and approved.

8.2.5 Import of Poultry and Poultry Products

One hundred and twenty three (123) applications received by the DAPH were reviewed and recommended for approval to import poultry and poultry products.

8.2.6 Registration of Export Processing Centres.

All processing establishments intending to export meat products are required to register with the DAPH. Application of HACCP is considered as a requirement for such registration. The DAPH has signed a MoU with the Sri Lanka Standards Institution (SLSI) for certification of processing establishment under the HACCP certification scheme. Officers from the Animal Quarantine Office and the LRIU/HQ have participated in seven (07) surveillance audits carried out by the SLSI during 2009.

8.2.7 Monitoring Industry Status

Vital statistics on the poultry industry such as, production and prices of poultry and poultry products, import and export, production costs etc. were collected, collated and the computer database was regularly updated during the year. Relevant information was disseminated to private and state sector organizations/ individuals. During the year production forecast and twelve (12) monthly bulletins were compiled and disseminated. On the request made by poultry industrialists, all these bulletins/ reports were published in English language. Private/state sector organizations, individuals and institutions received these bulletins/ reports regularly, during the year 2009.

8.2.8 Documentation

The Good management practice (GMP) certification system was developed to grade poultry breeder farm and this programme will be commenced in 2010

8.3 Regulatory Activities - Other Livestock and Livestock Products

The International trade in animals and animal products may create a certain risk of introducing animal diseases into the country. The Animal Disease Act No 59, of 1992 provides provisions to authorize importation of animals and animal products into the country.

Review and recommendation of requests to import animals and animal products based on the animal disease states of the exporting country, assessment of the disease situation, carrying out risk assessment and reparation of health requirements are the activities carried out in this regard.

8.3.1. Import of animals:

a. Large Animals/other animals

Three (03) applications were received during the year for importation of horses, a Guinea pig and an elephant. The veterinary health requirements for these have been prepared and three (03) permits were issued.

b. Zoo Animals

During the year 2009, two (02) permits were issued to the Department of Zoological Gardens for the importation of zoo animals.

c. Dogs and cats

During the year 242 permits were issued for the import of dogs and cats from various countries.

d. Live Fish

Forty seven (47) permits were issued for import of live fish from various countries during the year 2009.

8.3.2 Import license and BSE control

To prevent entry of BSE into the country, all animals and animal products excluding poultry and poultry products were brought under the import license in 1996. For this purpose, global BSE status is continuously studied/ reviewed. Accordingly, 147 no objection letters and permission letters were issued in 2009.

8.3.3. Import of animal products:

a. Import of meat and meat products

Seventy (70) applications were received for importation of beef, lamb , mutton and its processed products that are come under the Import license. These applications were reviewed and permits were issued.

b. Import of other animal products

During the year , 397 applications were received for importation of other processed products that are come under the Import license in 2009. These applications were reviewed and permits were issued.

c. Import of animals hair ,fur, hide /skins

During the year 159 applications were received and reviewed for the importation of fur, bristles, hair, animal skins/hides and finished leather.

d. Semen/embryo

Two (02) permits were issued during the year.

8.4. Veterinary Drug Control Authority

Import and use of Veterinary Pharmaceuticals and biological products are controlled by Animal Diseases Act and its regulations in order to safeguard the Animal owners and the Livestock Industry. Therefore, functions of Veterinary Drugs Control Authority (VDCA) aims to implement the regulations of the pertinent Act.

During the year, six (06) committee meetings of VDCA were held in DAPH, Peradeniya

Nineteen (19) new drugs were registered during 2009. These are as follows:

| | |
|----------------------|----|
| 1. AntiMicrobials | 05 |
| 2. Anthelmintics | 01 |
| 3. Immunobiologicals | 02 |
| 4. Supplements | 03 |
| 5. Analgesics | 02 |
| 6. Tranquilizer | 01 |
| 7. Anaesthetics | 01 |
| 8. Acaricide | 01 |

| | |
|---------------------|-------|
| 9. Disinfectants | 02 |
| 10. Vaccine Diluent | 01 |
| | ----- |
| Total | 19 |
| | ----- |

Manufacturing /Re-packings License were issued for nine (09) products such as Termon-S, CanCan Shampoo, Zymer CTC, Square CTC, Coxitril and Spectro ENF., Floxater, cyromazine and Albenda during the year.

Twelve (12) inspections were made to ensure effective and safe use of Veterinary pharmaceuticals and Biological products.

8.4.1. Invoice Approvals

Five hundred and forty five (545) invoices were approved by VDCA in 2009 to import veterinary pharmaceuticals and biological products at a cost of 630 millions rupees.

8.4.2 . User Permit Approvals

Two hundred and five (205) user permits were approved. Details are as follows:

| | |
|-------------------------------|-------|
| 1. Bacterial Poultry Vaccines | 11 |
| 2. Viral Poultry Vaccines | 78 |
| 3. Poultry Coccidial vaccines | 25 |
| 4. Hormones | 16 |
| 5. Antimicrobials | 44 |
| 6. Testing Reagents | 05 |
| 7. General Medicaments | 01 |
| 8. Anti Trematodes | 01 |
| 9. Larvicidals | 04 |
| 10. External paraciticide | 01 |
| 11. Antinematodes | 06 |
| 12. Udder Infusions | 01 |
| 13. Vitamin/Minerals Inj., | 09 |
| 14. Viral Canine vaccine | 03 |
| | ----- |
| Total:- | 205 |
| | ----- |

8.4.3. Committee of VDCA

The committee functioned in 2008 continued for 2009 as well. The members are as follows:

1. Dr.Saliya Samarakoon
2. Dr.R.Wickramasinghe
3. Dr.S.Arulkanthan
4. Dr.D.D.N.Silva
5. Dr.S.P.Gunarathna
6. Dr.Basil Alexander
7. Mr.W.Pathirana

Dr.HMSP Herath Director General, DAPH functioned as the chairperson of the VDCA and Dr.A. Sivasothy continued as the Registrar the committee.

Mr. W.Pathirana has retired from his post at the faculty on 1st October 2009 and opted to release from the VDCA activities. The VDCA contacted Cosmetics and Drugs Control Authority to nominate a suitable officer and obtain approval from the Hon. Minister. Dr. Basil Alexander left the country in November 2009 for sabbatical leave and VDCA suggested Dr. Anil Pushpakumara as a member to the committee as his replacement .

8.5. Implementation of Animal Feed Act

Year 2009 was the 11th successive year of implementing the Animal Feed Act No.15 of 1986. During the year the activities were mainly concentrated on quality control of registered, *Approved Animal Feeds* through implementation of the provisions of the Animal Feed Act.Dr.(Mrs.) H.M.S.P.Herath DG, DAPH functioned as the Chairman of the Animal Feed Advisory Committee (AFAC).

Following members functioned as members of Animal Feed Advisory Committee (AFAC):

1. Mr.WAJ Perera, Managing Director, New Bernard Animal Feeds (Pvt) Ltd
2. Dr.SSE Ranawana, Professor of Livestock and Avian Sciences
3. Dr.K.Samarasinghe, Senior Lecturer in Animal Science, Faculty of Agriculture
4. Dr.S.S.P.Silva, Veterinary Research officer, VRI
5. Dr.TAC Tiskumara, Registrar Animal Feed (functioned as the secretary of the AFAC)

Since the sudden demise of Mr.WAJ Perera, in June 2009, Mr KP Krishnamoorthy, the Managing Director of Eastern Traders Pvt Ltd was appointed as the replacement of him.

Remarkable features noticed during the year in the animal feed industry had been increased domestic maize production, increase in self mixed feed component and availability of poor quality of feed raw materials in the market

8.5.1. Regular activities

Sixteen (16) Large, medium and small-scale registered Animal feed manufacturing establishments were in operation during the year.

Two (02) establishments for manufacture and export of feed additives, supplements and premixes were also in operation.

a. Renewals

In accordance with the *Section 5.3* of the Animal Feed Act, renewals of animal feeds registered during the period 1998 to 2008 were carried out in 2009. A total of 629 renewals were made during the year (Imports -501, Manufacture -128).

b. Issue of new licenses

In continuation of issuing new licenses, seven (07) new licenses were issued to animal feed importers and another three (03) licenses were issued to importers of shrimp feed. Accordingly, following AAF numbers were assigned

Import of animal feed 103
Manufactured feed 66

c. Collection of Turn over Returns

One of the main features of 2009 is that there had been a phenomenal decrease in compound animal feed production by the large scale millers and proportionate increase in self mixing.

In accordance with the *Regulation No. 11* of the Animal feed Act, turnover returns were collected from all registered animal feed manufactures. Based on these turn over returns total animal feed production by registered animal feed manufacturers for the year 2009 is given below:

| Type of Feed | Quantity (MT) |
|---------------|---------------|
| Poultry Feed | 272,562.95 |
| Cattle Feed | 6,575.15 |
| Pig Feed | 1,308.60 |
| Shrimp feed | 380.17 |
| Horse feed | 109.50 |
| Feed Premixes | 4.91 |
| Others feed | 90.75 |
| TOTAL | 281,032.04 |

Type and the quantity of poultry feed products manufactured by approved feed manufacturers in 2009 were as follows:

Break down of poultry feed production

| Feed | Quantity (MT) |
|---------------------------|-------------------|
| Chick Starter | 13,859.95 |
| Layer Grower | 5435.14 |
| Layer | 38,630.74 |
| Total Layer Feed | 57,925.83 |
| | |
| Broiler Strater | 74,666 |
| Broiler Finisher | 104,420.8 |
| Total Broiler Feed | 179086.8 |
| | |
| Broiler Breeder | 31,417.96 |
| Layer Breeder | 4132.36 |
| Total Breeder Feed | 35,550.32 |
| | |
| Total Poultry Feed | 272,562.95 |

d. sage of raw materials

Based on approvals considered for imports by feed manufacturers and importers major raw material imports were given in Annex X 1V

* Based on Raw material imports it is estimated that about 40% of Poultry feed is produced by self mixers who are mainly concentrated in North Western Province and attribute their production mainly to Poultry (layer) feed.

e. Implementation of BSE regulations on Animal feed imports

As a measure to prevent entry of BSE causative agent to the country all imports of feed ingredients were screened prior to importation:

Bovine origin-98 permits were issued to Meat and Bone Meal

Non bovine origin -1716 invoices for different products were screened.

f. Export of Animal feed

Government policy is to encourage exports. Three (03) export establishments were in operation during the year. A total no of 76 products (poultry premixes) were manufactured for the export market. Number of certificates issued and the quantities are as follows:

No. of export certificates issued 218

Quantity exported 5916.75 MT and 54,500 Liter

8.5.2. Other Matters

a. *Technology Improvements of animal feed milling*

During the year, (03) programs were held to improve the technology of feed milling.

b. *Amendments to the Animal Feed Act No.15 of 1986*

Final draft was submitted to the Ministry of Livestock Development and to the Legal draftsman.

8.5.3. Maize development program

National Maize Development Program was coordinated during the year. Local maize usage has further increased in 2009, which is estimated to be around 80% of the total usage.

Need for collaborative action with respective stakeholders of local Maize Industry and poultry industry was felt and a workshop was organized by the AFAC in June and recommendations were proposed to the respective authorities

As a measure to encourage local maize farmers, import of Maize was banned From March 2009. Price of local maize which was around Rs 26/= in Feb to March gradually increased to Rs 48.00 to Rs. 50.00 at the end of the year. As a measure to facilitate local feed manufacture, a restricted quantity of maize was allowed to be imported in November to December 2009.

8.5.4. Melamine contamination in fish meal

As a precautionary measure Fish Meal and Shrimp feed imports from China was restricted throughout the year.

8.5.5 Mycotoxin contamination in Fee

With the increase utilization of local maize in feed formulation AFAC

decided to establish standards for *Mycotoxins* in Animal Feed.

8.5.6 Quality assurance of Shrimp feeds

A special program to adopt GMP standards for Shrimp feeds was continued jointly with NAQDA officers. SLSI was requested to formulate standards for Shrimp feeds

9. ADMINISTRATION DIVISION

9.1. Present Cadre Positions of the Department

The present approved cadre positions of divisions (i.e. General Administration, Finance, Human Resource Development, Animal Breeding, Animal Health, Veterinary Research and Livestock Planning and Economics) of the DAPH amounted to 734 and actual cadre position was 578 (*Project I: 147, Project II: 233 and Project III: 198*). Details of cadre positions are given in the *Annex XIV*

9.2. Approval from the Management Service

Approval has been obtained from the Management Services Department in 2009 to create following posts:

- Five (5) posts of Deputy Directors from Class 1 of the Sri Lanka Animal Production and Health (SLAPH) Service
- Four (4) posts of Livestock Officers

9.3 Appointments

Following appointments were made during the year 2009.

- Dr. A.D.N. Chandrasiri as the Additional Director General from 20 June.
- Dr. D .R. T. G.Rathnayake as the Director Animal Breeding from 01 September.
- Fifteen (15) Veterinary surgeons appointed as Veterinary investigation Officers.
- Three (03) Veterinary Research Officers from 16 April.
- One (01) Livestock Officer from 16 April.
- Three (0 3) Labourers on contract basis from 01 March, 22 June and 01 October.
- One (01) watcher on casual basis from 01 October.
- One (01) KKS of Class 111 from 03 February.
- Appointment letters have been issued to 11 drivers from 03 August.

9.4. Promotions

Promotions given during the year are as follows:

- One (01) officer in the SLAPH service to Class I.
- One (01) Veterinary Research Officer in the SLAPH service to Class II grade I.
- One (01) Veterinary Surgeon in the SLAPH service to Class II grade 1.
- Three (03) Livestock Officers in the SLAPH service to Class II grade 1.
- One (01) KKS in KKS Class 111 was promoted to Class 111 State Management Assistant Service
- Three (03) KKS from Class 111 to Class 11.

9.5 Transfers (from and to the DAPH)

Details of transfers made to and from the DAPH are stated below:

Transfers to the DAPH

Dr D .R. T. G. Rathnayake, Provincial Director, Department of Animal Production and Health, North- Central Province was promoted as Director, Animal Breeding.

Veterinary surgeons 07

Mr. A M Rathnasiri to fill the vacancy of Mrs. HRMAM Rathnayake, Management Assistant Service (Supra Grade).

Management Assistant Service 10

KKS 04

Driver 02

Transfers from the DAPH

Veterinary surgeons 04

Management Assistants 06

KKS 04

Driver 01

9.6. Retirements and Resignations

Details of Staff Members who have retired from the Service in 2009 are as follows: Director General, Dr. (Ms) HMSP Herath retired from 29 November.

Dr, J.Dharmawardena, Director, Veterinary Research retired from the service from 13 October.

Other Retirements

Livestock Officers 01

Livestock Development Officers 05

Research Assistants 01

Management Assistants 04

Veterinary Surgeon 01

Driver 01

Special Labourers 03

Labourers 08

Tractor Operator 01

9.7 Resignations

There were no resignations in the year 2009.

9.8 Vacation of Post

| | |
|-----------------------------------|----|
| Veterinary Surgeon | 01 |
| Veterinary investigation officers | 02 |
| Garden Labourer | 01 |

9.9 Releases from the DAPH

Ms. A. P. V. Morawaka Arachchi Programme Assistant has been released to Ministry of Finance and planning from 19 June.

Action is being taken to release Mr. T.A.B Sanjeewa, Monitoring Assistant to University of Rajarata, from 04 May.

9.10. Loans

Loans granted from the Advanced Account for Public Officers:

Receipts

Allocations for 2009 - Rs. 12,500,000.00

Details of loans approved and forwarded to Director, Finance for payment are as follows:

| Type of Loan | Amount (Rs) |
|---------------------|--------------------|
| Distress loans | 11,645,948.00 |
| Bicycle Loans | 6,000 .00 |

It should be noted that only a portion of this amount (Distress loan Rs. 1,937,797.00 and bicycle loan Rs. 6,000.00) has been paid during the year 2009 due to financial restrictions. As per instruction letter issued by the Director, Finance loan applications were not approved from 12 June 2009.

9.11 Insurance Payments

During the year, 155 officers applied for insurance claims and relevant applications have been forwarded to Sri Lanka Insurance Corporation for payment.

10. FINANCE DIVISION

The Departmental Head pertaining to the financial activities for the year 2009 was 292. The activities of the department were performed under the program No. 01, Development Program No. 01 and under three (03) projects. Financial allocations and the expenditure summary for the year 2009 is as *Annex: XVI*

A sum of Rs. 282.7 million for the recurrent expenditure and Rs. 181.6 million for the capital expenditure was received by the Department for the year 2009, totaling Rs. 864 million.

10.1. 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.) | 282,735,000 | _____ | 282,735,000 | 262,395,508 | 92 |
| Capital (Rs.) | 581,600,000 | _____ | 581,600,000 | 198,540,670 | 34 |
| Total (Rs.) | 864,335,000 | _____ | 864,335,000 | 460,936,178 | 53.32 |

b. Allocations received from other Ministries and Departments

| Vote | Allocation (Rs) | Expenditure (Rs) | Percentage of the expenditure |
|-----------------|-----------------|------------------|-------------------------------|
| 140-2-3-11-2502 | 28,555,660 | 28,555,660 | 100 |
| 253-1-2-1-1502 | 2,681,552 | 2,681,552 | 100 |

10.2. Public Servants' Advance Account "B"

| | Limits of the Annual Estimates | | Actual Value |
|------------------------------------|--------------------------------|----------------------------------|---------------|
| Balance carried forward | | | 77,990,699.68 |
| Maximum debit limit | 27,754,000 | Debits affecting the limits | 5,220,972.00 |
| Minimum credit limit | 10,800,000 | Debits not affecting the Limits | 3,156,199.00 |
| Maximum limit of the debit balance | 98,000,000 | Credits affecting the limits | 10,008,884.92 |
| | | Credits not affecting the Limits | 1,993,180.00 |
| | | Balance brought down | 66,365,805.76 |

10.3. General Deposit Account

The balance of the General deposit account of the Department as at 31.12.2009 was Rs.6,782,561.38/=.

It was prepared as follows :

| | |
|------------------------------|------------------|
| 6000/0000/00/0003/0208/000 - | Rs. 3,248,432.28 |
| 6000/0000/00/0015/0147/000 - | Rs. 3,534,129.10 |

10.5 Departmental Income

The income received by the Department for the year 2008 is given in *Table 10.1*:

Table10.1: Departmental income -2008

| Subject No. | Prescription | Total income Received (Rs) |
|-------------|-------------------------|----------------------------|
| 2002.10.01 | House Rent | 3,204,216.79 |
| 2003.20.02 | Interest for Loans | 2,830,688.68 |
| 2003.10.00 | Sales (Departmental) | 15,950,370.12 |
| 2003.90.00 | Income (Misc.) | 1,811,682.58 |
| 2004.10.00 | W & O.P. Contributions | 7,269,575.74 |
| 2006.20.00 | Sale of Capital Assests | 59,565.00 |

Rs. 371,375,000 million was obtained from the Treasury for the activities of the department and Rs.31,126,098.91 million received as income , miscellaneous revenue and, there was no balance.

11. FOREIGN FUNDED PROJECTS

AVIAN INFLUENZA PREPAREDNESS AND RESPONSE PROJECT

11.1. Introduction.

Sri Lanka Avian Influenza Preparedness and Response Project (AIPRP) was designed with the broader objective of strengthening animal health sector in order to minimize the global threat posed by Highly Pathogenic Avian Influenza (HPAI) and similar communicable diseases.

This project was specifically designed to prepare the “*Animal Health Sector*” of the country for immediate and rapid response against animal diseases posing high public health risk such as HPAI. The project had been approved by the World Bank in March 2007.

The project operates since April 2008 with activities planned on five major areas indicated as follows and , with a budgetary provision of US\$ 1.4 million equivalent to Rs 163 million.

1. Strengthening HPAI prevention and preparedness planning capacity.
2. Strengthening disease surveillance, diagnostic capacity and virus research.
3. Strengthening control programs and outbreak containment plans.
4. Compensation fund.
5. Surveillance of migratory birds.

The overall responsibility of the project lies with the Ministry of Livestock Development and the project is implemented by the Department of Animal Production and Health through its divisions namely Animal Health, Veterinary Research, Human Resource Development, Livestock Planning and Economics and Provincial Departments while financial activities are performed by the Finance Division. DG/DAPH is the Project Director and a Project Support Cell headed by a Project Manager (Dr.T.P.Wijethilaka) has been established to assist the Project Director to implement this project.

Physical performance of the five components up to end of December 2009:

1. Enhancing HPAI prevention & preparedness planning capacity.

a. Training / awareness programs.

| Programme | No. of Programmes | Participants |
|--|--------------------------|---------------------|
| School Children Awareness | 243 | 24851 |
| Teacher Awareness | 36 | 1357 |
| Non Technical staff Training | 136 | 10087 |
| Poultry Farmer Training | 343 | 12280 |
| Top level technical staff and other stakeholders | 74 | 4668 |
| Total | 876 | 58113b. |

b. Consultancies Completed

Consultancy on poultry backyard farmer capacity building

Consultancy on commercial poultry farmer capacity building

c. Civil works

Refurbishment of farmer training centre Wannigama - Northwestern - Completed

Refurbishment of farmer training centre Seepukulama - North central - Ongoing

Refurbishment of Institute of continuing education in AP&H - Peradeniya - Ongoing

2. Strengthening disease surveillance / diagnostic capacity and virus research.

3. Strengthening HPAI control program & outbreak contingency plan

- Implementing the island wide surveillance program for HPAI - 8707Serum samples and 2229Cloacal swabs collected.
- Strengthening of laboratory facilities, supply of chemicals and test kits were performed - ELISA kits for 5000 tests provided, Rapid Test kits for all VICC
- Preliminary arrangements have been completed to establish two Veterinary Investigation Centers in Jaffna and Kurunegala
- Preliminary arrangements have been completed to construct biological pits for 17 VIC for carcass disposal
- Equipment supplied to the Animal Health Division and to the VRI are as follows.

VRI

Laboratory Equipment (Bio Safety cabinet Class iii)

Animal Health Division

| | |
|--------------------------------|---|
| Auto Clave | 5 |
| Centrifuge | 5 |
| Incubator | 5 |
| Hot air oven | 5 |
| Dual temperature Refrigerators | 2 |
| VIC Emergency Equipments | |
| Power Sprayers | 5 |
| Power Washers | 5 |

- Apart from those, three (03) minivans were supplied to VRI, Animal health division and animal quarantine station each.
- Also two (02) Double Cabs were supplied to Animal Health division and to the project support cell each.

4. Compensation Fund

The compensation program has been updated and poultry farm registration process been launched at Veterinary Range level with the assistance of Provincial Directors of DAPH. Initiation of establishing the compensation mechanism visualizing the nature of the poultry industry will facilitate compensation available to appropriate stakeholders at correct time in case of a HPAI outbreak. In total Rs 1.1 million has been spent during the 4th quarter of 2009 and the program will continue up to the end of 2nd quarter of 2010.

5. Migratory bird surveillance and training local staff

Migratory bird surveillance activity is another important activity which is provided with the financial assistance under the project. Under the program samples for surveillance for HPAI are collected from 35 Hotspots island wide. A consultant has been employed and through the consultant migratory bird identification and training for handling and sample collection has been launched for the benefit of the DAPH officers and Veterinary Investigation Officers.

Obtaining approval for a research intervention for migratory bird surveillance and sample collection at National Parks and Sanctuaries in collaboration with the Department of wildlife Conservation could be indicated as the most significant and sustainable achievement within the year. In return DAPH trains staff of National Parks and Sanctuaries of the Department of wildlife Conservation for identification and emergency preparedness for HPAI.

Financial Performance up to end of 2009:

| Component | Allocation (Rs) | Expenditure (Rs) | Balance (Rs) |
|---|------------------------------|-----------------------------|--------------------------|
| Enhancing HPAI prevention and preparedness capability | 31.8 | 28.175 | 3.625 |
| Strengthening disease surveillance and diagnostic capacity and virus research | 68.5 | 27.8 | 40.7 |
| Strengthening HPAI control program and outbreak contingency plan | 31.2 | 1.218 | 29.982 |
| Compensation Fund | 28.3 | 1.114 | 27.186 |
| Migratory bird surveillance and training local staff | 3.4 | 0.073 | 3.327 |
| Total | 163.2 | 58.38 | 104.82 |

12.PRODUCTIVITY IMPROVEMENT PROGRAMME

Productivity Improvement Programmes have been introduced into the state sector institutions in the recent past in order to improve efficiency and effectiveness of services delivered by the state sector. The DAPH initiated a productivity development programme during the second quarter of the year 2009, in collaboration with the National Productivity Secretariat.

Following several discussions held with the National Productivity Secretariat, an awareness programme was conducted to all employees of the DAPH with the participation of resource persons from the same institute. Two (02) such programmes were conducted at ICEAPH and, a total of one hundred and ninety-seven (197) department employees were participated in this programme.

According to suggestions made at the Directorate meeting of the DAPH, an action plan was prepared. This programme was coordinated by the Livestock Planning and Economics (LPE) division and, Dr K.M.H.G Sarath Priyantha, Veterinary Surgeon and Ms Gayani Ekanayaka, Development Assistant from the same division were appointed to coordinate the whole programme.

Following officers were nominated to represent each division/unit of the DAPH, and to coordinate and implement this programme:

Ms. A.P. Dodamwala-Director General's Office
Mr. G.Gunasena- Animal Health Division
Ms. Premanee Abeykoon- Animal Breeding Division
Dr. N. Priyankaarge -Veterinary Research Institute
Mr. Kusal Rajakaruna- Human Resource Development Division
Mr. M.M.A.B. Moremada-Institute of Continuing Education
Mr. R.M.G. Ramanayake, Livestock Planning and Economics division
Dr Rangani Munasingha – Laws and Regulations Implementing Unit
Ms A.P. Wickramasingha -Administration Division
Mr H.M.K.G. Hearth -Finance Division
Dr. Baghya Wickramasooriya – World Bank funded HPAI Project

Committee meetings were held at two weeks intervals and progress of the programmes was continuously monitored. Activation impumented is 2009were the programme as given in Table 12.1

12.1 Table .Activities implemented under this programme in 2009 were as follows:

| Activity | Period |
|--|--------------------|
| Initial awareness programme | April -May |
| Appoint Divisional representatives | June |
| First Committee meeting with Directors | June |
| Photography (existing situation) | June |
| Department <i>Seiri</i> day | July |
| Implementing of 5 S concept | July |
| Progress Review Meeting (1 st quarter) | August |
| Department Day to strengthen team spirit | October |
| Review of Progress of the Programme | October |
| Field trips to award winners-Institutions | November -December |

According to the action plan of the programme a *seiri day* was held in the department and followed by implementation 5 S concept in each division. A general meeting to address the staff to review the progress of the productivity development programme was held by the Director General of the department on 3rd August 2009.



Figure 12.1: Initial Awareness Programme Meeting



Figure 12.2: Productivity Committee



Figure 12.3: Officers in action- *Seiri* day center



Figure 12.4: Field visit to Wayamba training center

The progress of this programme was evaluated by coordinators dividing into small groups and visiting each division/unit of the DAPH followed by discussions with the management. The *DAPH DAY* was held on 30th October 2009 at ICEAPH to encourage team building and apprise talents of the DAPH staff. Under this programme various educational, recreation activities were organized and performances were made.

To motivate the DAPH staff, field trips were organized to state organizations (Dambulla , Pathadumbara and Matale Divisional Secretary Offices and Wayaba Training Center, Wariyapola) who have won the *National Productivity Award* in 2008. Eight (08) such trips were organized during the year 2009.

This programme will be continued under the ***Management Re-organization Committee*** (Kalamanakarana Prathisanskarana Sansadaya) of the DAPH in the year 2010.

13. E Government Program

Information technology is one of the key priority areas for development in the present government policies. Department of Animal Production and Health has been involved in E- government program since year 2004. Under the Re-engineering Government Program of Information and Communication Technology Agency of Sri Lanka (ICTA) ,the department has also been included as one of the organizations in first phase of their program. Simultaneously, DAPH has been connected to Government Information Centre (GIC) which provides services to general public through 1919.

DAPH was also connected to Lanka Government Network (LGN) in 2005 which is one of the main programs of E- government program. Accordingly DAPH has been able to connect with more than 300 government organizations through Information Technology(IT)

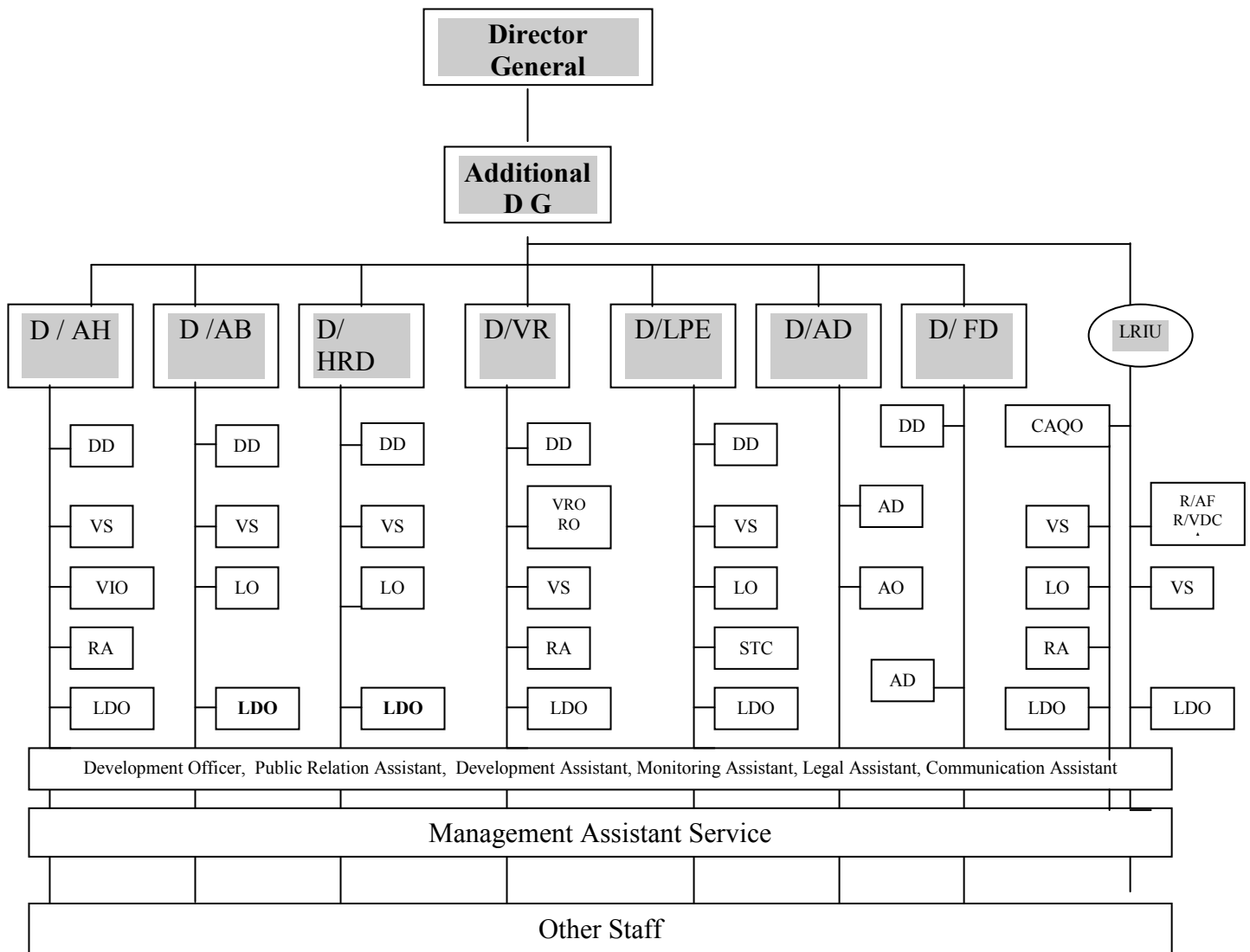
During the year the department came to an agreement with ICTA to revamp it's website. Accordingly, the website of the DAPH would be developed as a trilingual and online service providing website.

With all developments in IT field and in line with e- government program of the government , DAPH has initiated several IT development activities . One of the main initiatives was formation of a IT group consisting main IT personnel from each division and unit of the department. The group meets once a month under the chairmanship of DG/DAPH and evaluate its programs and activities at the DAPH. Upgrading of ADSL line of department, continuous maintenance of IT infrastructure and organize capacity building programs related to IT field are the main initiatives taken by this IT group.

ANNEXURES

- Annex I Organization Structure of the DAPH
- Annex I I Key data on the Poultry Industry- (2008 - 2009)
- Annex III Activities Performed at Veterinary Investigation Centres
- Annex IV Data on HPAI Surveillance Programme in 2009
- Annex V Research Publications -2009
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- Annex VIII Special Development Projects Continued 2010
- Annex IX Provincial Activities
- Annex X Milk Collection Data
- Annex XI Quarantine Holdings and the Period of Quarantine- 2009
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- Annex XIV Export of Animals, Animal Products and Animal By-Products
- Annex- XV Raw Material Usage for the Animal Feeds -20078
- Annex- XVI Present Cadre Position of the Department.
- Annex- XVII Financial Allocations and the Expenditure Summary 2009

Organizational Structure of Department of Animal Production and Health



| | | | |
|-------|--|--------|---|
| AD | : Assistant Director | RA | : Research Assistant |
| CAQO | : Chief Animal Quarantine Officer | R/AF | : Registrar Animal Feed |
| D/AH | : Director Animal Health | R/VDCA | : Registrar Veterinary Drug Control Authority |
| D/AB | : Director Animal Breeding | RO | : Research Officer |
| D/HRD | : Director Human Resource Development | STC | : Statistician |
| D/VR | : Director Veterinary Research | VIO | : Veterinary Investigation Officer |
| D/LPE | : Director Livestock Planning and Economics. | VRO | : Veterinary Research Officer |
| D/ AD | : Director Administration | VS | : Veterinary Surgeon |
| D/ FD | : Director Finance | | |
| DD | : Deputy Director | | |
| LDO | : Livestock Development Officer | | |
| LO | : Livestock Officer | | |
| LRIU | :Lows and Regulations Implementation Uni | | |

Key Data on the Poultry Industry (2008 - 2009)

| Activity | 2008 | 2009 | Growth (%) |
|--|----------|----------|------------|
| 1. Procurement of Grand Parent and Parent stock. | | | |
| Grand Parent Stock (Broiler) | 14,231 | 13880 | -2.47 |
| Parent Stock | | | |
| Broiler | 812,250 | 777,848 | -4.24 |
| Layer | 52,772 | 55,107 | 4.42 |
| 2. Production of Day - Old Chicks(m) | | | |
| Broiler | 80.71 | 77.21 | - 4.34 |
| Layer | 5.87 | 4.49 | -23.51 |
| 3. Production of Poultry Feed (MT) | | | |
| | 464,0000 | 454,0004 | -2.16 |
| 4. Export of Poultry Products | | | |
| Day-old chicks | 34,279 | 42,371 | 23.61 |
| Chicken and Chicken Products (MT) | 1161.65 | 1513.85 | 30.32 |
| Table Eggs | 640,071 | 486,193 | -24.04 |
| 5. Import of Poultry Products | | | |
| Chicken and Chicken products (MT) | 2,665.14 | 1004.18 | -62.32 |
| Table Eggs | - | | |
| Egg Products (MT) | 202.00 | 101.64 | -49.68 |

Activities Performed at Veterinary Investigation Centers

| Programme | Activity | VIC wise Achievement | | | | | | | | | | | | | | |
|--|--|----------------------|------------|---------|----------|----------|---------|--------|--------|--------|--------|---------|---------|--------|--------|--------|
| | | Matara | Weligasara | Pannala | P'naruwa | P'deniya | Kegalle | R'pura | Chilaw | H'tota | Jaffna | N'Eliya | Badulla | A'pura | Ampara | Total |
| 1. Disease Investigation | 1.1 Field Investigation | 12 | 6 | 20 | 16 | 16 | 6 | 18 | 25 | 15 | 51 | 7 | 29 | 43 | 6 | 270 |
| | in the field | 115 | 123 | 97 | 147 | 96 | 26 | 77 | 99 | 386 | 53 | 32 | 542 | 221 | 1 | 2015 |
| | 1.3 Investigation Reports | 11 | 6 | 19 | 17 | 18 | 6 | 18 | 25 | 15 | 53 | 4 | 28 | 35 | 6 | 261 |
| | 1.4 Follow-up / further investigation | 1 | 3 | 1 | 1 | 16 | 3 | 6 | 14 | 5 | 14 | | 10 | 15 | 2 | 91 |
| 2. Laboratory Service for disease diagnosis | 2.1 Post-mortem examinations | | | | | | | | | | | | | | | 0 |
| | - Poultry | 225 | 229 | 1863 | 198 | 55 | 36 | 16 | 462 | 9 | 100 | 6 | 75 | 95 | 0 | 3369 |
| | - Other Species | 2 | 8 | 6 | 25 | 1 | 3 | | 27 | 5 | 10 | 1 | 18 | 11 | 0 | 117 |
| | 2.2 Testing of samples | | | | | | | | 0 | | | | | | | 0 |
| | - Bacteriological | 101 | 618 | 877 | 34 | 36 | 27 | 18 | 209 | 4 | 23 | 0 | 133 | 48 | 0 | 2128 |
| | - ABST | 5 | 137 | 177 | 24 | 32 | 20 | 18 | 36 | 0 | 0 | 0 | 56 | 21 | 0 | 526 |
| | - Parasitological - Blood | 86 | 2213 | 521 | 81 | 6 | 241 | 101 | 127 | 75 | 22 | 25 | 153 | 92 | 4 | 3747 |
| | - Dung | 229 | 377 | 477 | 419 | 205 | 34 | 11 | 238 | 159 | 27 | 91 | 333 | 394 | 10 | 3004 |
| | - Skin | 2 | 24 | 3 | 2 | 0 | 3 | 2 | 6 | 5 | 33 | 0 | 7 | 15 | 0 | 102 |
| | 2.3 Testing of milk samples | | | | | | | | | | | | | | | 0 |
| | - CMT | 53 | 230 | 850 | 54 | 547 | 108 | 50 | 124 | 600 | 41 | 32 | 1158 | 228 | 0 | 4075 |
| | - ABST | 6 | 187 | 129 | 8 | 97 | 32 | 17 | 23 | 0 | 0 | 0 | 52 | 28 | 0 | 579 |
| | -Gurber test | 0 | 1 | 18 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 79 | 0 | 98 |
| | - Milk Analysis (SG/Fat/SNF/TS) | 0 | 1 | 28 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 156 | 0 | 185 |
| | 2.4 Urine analysis | 5 | 85 | 4 | 0 | 5 | 0 | 1 | 18 | 3 | 0 | 0 | 4 | 0 | 0 | 125 |
| | 2.5 Laboratory reports | 63 | 2330 | 1435 | 10 | 101 | 211 | 99 | 176 | 32 | 68 | 0 | 111 | 170 | 1 | 4807 |
| | 2.6 Samples dispatch for further testing | 0 | 50 | 57 | 10 | 23 | 9 | 1 | 16 | 0 | 0 | 16 | 155 | 121 | 0 | 458 |
| 3. Vaccine Production & Vaccination | 3.1 CPD Vaccine (No. of farms) | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 4 | 0 | 528 | 0 | 0 | 0 | 0 | 533 |
| | 3.2 Wart Vaccine (No. of doses) | 32 | 21 | 26 | 21 | 32 | 5 | 7 | 9 | 0 | 0 | 0 | 16 | 15 | 0 | 184 |
| 4. Supply of lab. Inputs to Veterinary Offices | 4.1 Distilled water (Litre) | 4 | 0 | 61.5 | 5 | 81.5 | 40.5 | 2.5 | 0 | 0 | 118 | 0 | 149 | 117 | 0 | 579 |
| | 4.2 CMT reagent (Litre) | 2.1 | 1.5 | 2.5 | 3 | 10 | 6.5 | 10 | 26 | 14 | 0 | 0 | 30 | 16 | 0 | 121.6 |
| | 4.3 Udder base (vials) | 127 | 0 | 3 | 0 | 275 | 28 | 0 | 0 | 5 | 0 | 0 | 12 | 0 | 0 | 450 |
| | 4.4 Teat dip solution (Litre) | 35 | 203.8 | 498 | 134 | 245 | 33 | 22.5 | 66 | 18 | 20.5 | 0 | 70.5 | 131 | 0 | 1477.3 |
| | 4.5 Slides | 0 | 50 | 215 | 0 | 41 | 275 | 70 | 0 | 0 | 0 | 0 | | 66 | 85 | 802 |
| | 4.6 Swabs | 0 | 10 | 23 | 0 | 10 | | | 35 | 0 | 0 | 0 | | 0 | 0 | 78 |
| 5. Dairy farm Health Improvement project | 5.1 New farm registration | 13 | 10 | 12 | 11 | 19 | 15 | 7 | 23 | 32 | 5 | 1 | 23 | 17 | 0 | 188 |
| | 5.2 GIS Mapping | 37 | 8 | 15 | 14 | 61 | 15 | 14 | 23 | 34 | 0 | 0 | 26 | 18 | 0 | 265 |
| | 5.3 Farm Visits | 69 | 6 | 26 | 29 | 85 | 47 | 48 | 70 | 114 | 103 | 1 | 38 | 91 | 0 | 727 |
| | 5.4 No. of Dairy cows tested | 135 | 91 | 216 | 511 | 402 | 299 | 184 | 471 | 367 | 781 | 5 | 130 | 622 | 0 | 4214 |
| | 5.5 Mastitis screening (CMT) | 258 | 300 | 582 | 161 | 1356 | 298 | 406 | 1217 | 291 | 208 | 20 | 476 | 560 | 0 | 6133 |
| | 5.6 milk sample testing (ABST) | 4 | 96 | 0 | 3 | 94 | 80 | 9 | 32 | 0 | 0 | 0 | 35 | 22 | 0 | 375 |
| | 5.7 Animal tested for parasitism | 232 | 210 | 179 | 166 | 462 | 270 | 267 | 347 | 302 | 322 | 5 | 51 | 288 | 0 | 3101 |
| | 5.8 Teat dip solution issued (L) | 56 | 0 | 0 | 1 | 133 | 93 | 63 | 86 | 13 | 10 | 2 | 39 | 133 | 0 | 628.5 |

Activities Performed at Veterinary Investigation Centers

| Programme | Activity | VIC wise Achievement | | | | | | | | | | | | | | Total |
|--------------------------|--|----------------------|----------|---------|----------|----------|---------|--------|--------|--------|--------|---------|---------|--------|--------|--------|
| | | Matara | Welisara | Pannala | P'narawa | P'deniya | Kegalle | R'pura | Chilaw | H'tota | Jaffna | N'Eliya | Badulla | A'pura | Ampara | |
| 6. Brucellosis control | 6.1 Field investigations | 0 | 2 | 0 | 14 | 14 | 23 | 4 | 8 | 0 | 5 | 1 | 4 | 31 | 0 | 106 |
| Programme | 6.2 Screening dairy herds (MRT) | 29 | 0 | 0 | 1 | 36 | | 50 | 0 | 0 | 30 | 0 | 63 | 4 | 0 | 213 |
| | 6.3 RBPT | 33 | 24 | 5 | 592 | 3 | 108 | 11 | 31 | 143 | 20 | 1 | 25 | 341 | 0 | 1337 |
| | 6.4 Vaccination of Animals | 0 | 0 | 426 | 61 | 100 | | | 14 | 120 | 0 | 0 | | 841 | 0 | 1562 |
| 7. Salmonella Control | 7.1 No of Breeder farm visits | 5 | 11 | 13 | 0 | 10 | 2 | 1 | 14 | 0 | 10 | 0 | 0 | 10 | 0 | 76 |
| Programme | 7.2 No of birds tested | 1200 | 4281 | 3110 | 0 | 3206 | 912 | 0 | 3992 | 0 | 670 | 0 | 0 | 1740 | 0 | 19111 |
| | 7.3 No of birds culled | 0 | 19 | 3 | 0 | 41 | 14 | | 4 | 0 | 3 | 0 | 0 | 25 | 0 | 109 |
| | 7.4 No of Hatchey visits | 6 | 3 | 9 | 0 | 3 | | 0 | 1 | 0 | 6 | 0 | 0 | 12 | 0 | 40 |
| | 7.5 No of Hatchey samples tested | 66 | 106 | 1 | 0 | 3 | | 0 | 12 | 0 | 2 | 0 | 0 | 21 | 0 | 211 |
| 8. Avian Influenza | 8.1 No of serum samples | 225 | 1365 | 1752 | 450 | 839 | 300 | 367 | 1067 | 405 | 0 | 315 | 270 | 630 | 345 | 8330 |
| surveillance programme | 8.2 No of dropping samples at Hotspots | 0 | 0 | 270 | 375 | 20 | | 37 | 400 | 100 | 0 | 0 | 58 | 12 | 20 | 1292 |
| | 8.3 No of cloacal swabs (Backyard) | 25 | 141 | 9 | 75 | 90 | 14 | 0 | 525 | 100 | 0 | 17 | 67 | 142 | 270 | 1475 |
| | 8.4 No of Training as resource personal | 4 | 7 | 2 | | 5 | 1 | 1 | 40 | 0 | 2 | 0 | 4 | 16 | 0 | 82 |
| 9. Animal Feed Analysis | 9.1 Testing of Feed samples | 13 | 0 | | | | | 0 | 24 | 0 | 0 | 0 | 0 | 6 | 0 | 43 |
| | 9.2 Samples dispatch for further testing | 0 | 0 | | | | | 0 | 20 | 0 | 0 | 0 | 0 | 7 | 0 | 27 |
| | 9.3 Feed formulation (poultry) | 0 | 0 | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 32 | 0 | 32 |
| 10. Inspection of Export | 10.1 Aquaculture Farm visits | 0 | 11 | | | | | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 12 |
| aquaculture farm | 10.2 Testing of samples | 0 | 666 | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 666 |
| | 10.3 Advisory service | 0 | 118 | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 118 |
| 11. Other | 11. 1 Pig Nasal Swabs | 90 | | | | | | 54 | 0 | 0 | 0 | 0 | 21 | 0 | 0 | 165 |
| 12. Revenue (Rs.) | | 26655 | 200075 | 55065 | 26275 | 18790 | 15390 | 7445 | 35705 | 980 | 5751 | 2845 | 6340 | 8491 | 0 | 409807 |

Details on HPAI Surveillance Program in 2009

Annex IV

| District | Serum Samples | | | | Cloacal swabs/ fresh droppings | |
|------------------|------------------|--------------------------|-------------------------------|---------------------------------------|-----------------------------------|---------|
| | No: collected | No : Tested for AI | No : of reactors for AI | HI test results for H5,H7,H9 | No: collected and Tested | Result |
| Colombo | 415 | 90 | 18 | (--) ve | 120 | (--) ve |
| Gampaha | 600 | 90 | 5 | (--) ve | 75 | (--) ve |
| Kalutara | 255 | 25 | 21 | (--) ve | 25 | (--) ve |
| Kandy | 615 | 90 | 32 | (--) ve | 58 | (--) ve |
| Matale | 316 | 60 | 17 | (--) ve | 185 | (--) ve |
| Nuwaraeliya | 270 | 60 | 11 | (--) ve | 59 | (--) ve |
| Galle | 180 | 60 | 5 | (--) ve | 0 | (--) ve |
| Matara | 210 | 30 | 4 | (--) ve | 20 | (--) ve |
| Hambantota | 222 | - | - | | 96 | (--) ve |
| Jaffna | 0 | - | - | - | 105 | (--) ve |
| Kilinochhi | 0 | - | - | - | 0 | - |
| Mannar | 0 | - | - | - | 100 | (--) ve |
| Vavuniya | 0 | - | - | - | 0 | - |
| Mullativu | 0 | - | - | - | 0 | - |
| Batticaloa | 135 | 58 | 8 | (--) ve | 0 | (--) ve |
| Ampara | 318 | 60 | 6 | (--) ve | 120 | (--) ve |
| Trincomalee | 120 | - | - | | 280 | (--) ve |
| Kurunegala | 2420 | 200 | 40 | (--) ve | 60 | (--) ve |
| Puttalam | 1162 | 236 | 35 | (--) ve | 202 | (--) ve |
| Anuradhapura | 315 | 60 | 5 | (--) ve | 124 | (--) ve |
| Polonnaruwa | 240 | 240 | 6 | (--) ve | 375 | (--) ve |
| Badulla | 150 | 74 | 3 | (--) ve | 26 | (--) ve |
| Monaragala | 105 | 30 | 14 | (--) ve | 70 | (--) ve |
| Ratnapura | 350 | 30 | 1 | (--) ve | 46 | (--) ve |
| Kegalle | 309 | 43 | 23 | (--) ve | 83 | (--) ve |
| Sri Lanka | 8707 | 1536 | 254 | | 2229 | |

**Research Publications
(2009)**

1. Alhassan, A., Senasinghe, N., Boonchit, S., Chan, B., Xuan, X., Yokoyama, N., Igarashi, I. (2005) Expression of C-terminal truncated and full length *Babesia bigemina* rhoptry associated protein 1 antigen and their potential use in enzyme linked immunosorbent assay. In: *Proceedings of Parasite and Vector Genomics. Sapporo/Obihiro 2005, Japan. 10th- 15th July, 2005. Pp-24.*
2. Faizal, A.C.M., Rajapaksha, W.R.A.K.J.S, Senasinghe, N.D., Rajapakse, R.P.V.J., Herath, U.T.K., Wijewardena, B.D.R. (2002) Fatal diarrhea in unweaned buffalo calves caused by concurrent *Eimeria* and *Cryptosporidium* infections. In: *Proceedings of the 10th International Congress of Parasitology. Vancouver, Canada. 4th-9th August, 2002.*
3. Fernando, A.N.D., Silva., S.S.P., Adikari, J.B. (2009). The effect of organic acid blends in Drinking water on the performance of broilers. *Proceedings of the 61st Annual Convention of the Sri Lanka Veterinary Association, 27 March 2009, pp 39.*
4. Hand Book of Dairy Nutrition-Sri Lanka. (2009) Silva, S.S.P., Chandrasiri, .D.N., Perera, A.N.F. Mangalika, U.L.P., Gunawardana, G.A., Premalal, G.G.C., Gamage, S.V.S., Perera, K.
5. Herath, U.T.K., Faizal, A.C.M., Somaratne, M., Senasinghe, N.D., Bastiansz, H.L.G., Hussain,, M.I.M.A. (2002) A Case Study: Diarrhoea among buffalo calves. In : *Proceedings of the 54th Annual Convention and Scientific Sessions of the Sri Lanka Veterinary Association. 3-4th May, 2002. Plant Genetic Resource Centre, Gannoruwa, Peradeniya. Pp- 35.*
6. Hettiarachchi, R., Ubeyratne, J.K.H. and Kodituwakku, S.N. (2001). A review of the animal disease situation in Sri Lanka. *The Sri Lanka Veterinary Journal* (48).
7. S.S Iddamaldeniya¹, RSJP Rajapaksha², LH Lauerman³, MB Navarathne¹, ND Senasinghe¹, SG Chandrasekera¹, Abeyrathne Banda¹
 - 1) Division of Parasitology, Veterinary Research Institute, Gannoruwa, Peradeniya
 - 2) Department of Pathobiology, Faculty of Veterinary Medicine and Animal Science, University of Peradeniya, Peradeniya
 - 3) Avian Health and Food Safety Laboratory, 7612 Pioneer Way E., Washington State University-Puyallup, Puyallup, WA 98371-4998,

8. Kumbukage, T.R., Ranasinghe, J.G.S., Silva, S.S.P., Walisinghe, H.A., Sugeeshwari, S., Shivakanesan, S. (2009). Mannan-Oligosaccharides (Bio-Mos) alters blood cholesterol, serum albumin and cell counts of laboratory mice. *Proceedings of the 61st Annual Convention of the Sri Lanka Veterinary Association, 27 March 2009, pp 40.*
9. Mangalika, U.L.P., Premalal, G.G.C., Silva, S.S.P. (2009). Nutrient requirement tables- dairy cows and buffaloes. *Hand Book of Dairy Nutrition-Sri Lanka, American Soybean Association. pp 79-81*
10. Perera, N.F; Mangalika, U.L.P; Gunawardana, G.A; Perera E.R.K (2009) Milk production, Quality & storage. *Hand Book of Dairy Nutrition Sri Lanka American Soybean association. pp 95-106*
11. Perera, N.F; Mangalika, U.L.P; Gunawardana, G.A; Perera E.R.K (2009) Milk production, Quality & storage. *Hand Book of Dairy Nutrition Pakistan American Soybean association. pp 93-114*
12. Perera, N.F; Mangalika, U.L.P; Gunawardana, G.A; Perera E.R.K (2009) Milk production, Quality & storage. *Hand Book of Dairy Nutrition Nepal American Soybean association. pp 36-56*
13. Perera, N.F; Mangalika, U.L.P; Gunawardana, G.A; Perera E.R.K (2009) Milk production, Quality & storage. *Hand Book of Dairy Nutrition Sri Lanka Bangladesh Soybean association. pp 65-85*
14. Premalal, G.G.C., Gunawardana, G.A., Chandrasiri, A.D.N., Gamage, S.V.S., Perera, K., Perera, A.N.F., Mangalika, U.L.P., Silva, S.S.P. (2009). Current dairy feeding management system-dairy cows and buffalos. *Hand Book of Dairy Nutrition-Sri Lanka, American Soybean Association. pp 26-34*
15. Premalal, G.G.C., Mangalika, U.L.P., Silva, S.S.P. (2009). Feeds and feeding-Survey of feedstuff availability. *Hand Book of Dairy Nutrition-Sri Lanka, American Soybean Association. pp 82-94*
16. Priyankarage, N., Silva,S.S.P., Gunaratne, S.P. (2009) A review of use of probiotic as an alternative to antibiotic growth promoters in animal feeding. *Sri Lanka veterinary Journal, (Submitted for publication)*

17. Senasinghe, N.D., Rajapaksha, W.R.A.K.J.S, Faizal, A.C.M., Rajapaksha, R.P.V.J., Widmer, G. (2002) Occurrence of Zoonotic Genotype of *Cryptosporidium parvum* in Cattle and Buffaloes Managed Extensively in a Mixed Livestock Farm in the Dry Zone. *Tropical Agricultural Research*. Vol.14 357-361.
18. Senasinghe N.D., Rajapaksha, W.R.A.K.J.S., Faizal A.C.M, Rajapakse, R.P.V.J., Widmer, G. (2002) Identification of *Cryptosporidium parvum* oocysts isolated from swine by PCR technique. *Tropical Agricultural Research*. Vol.14. 362-364.
19. Senasinghe, N.D., Rajapaksha, W.R.A.K.J.S., Faizal, A.C.M., Rajapakse, R.P.V.J., Widmer, G., (2002) Observation on *Cryptosporidium parvum* infection in a pig farm. In: *Proceedings of the Annual Research Sessions, University of Peradeniya*. Vol. 7, 30 October 2002.
20. Senasinghe, N.D., Rajapaksha, W.R.A.K.J.S, Rajapakse, R.P.V.J., Wijewardena, B.D.R., Herath, U.T.K., Faizal, A.C.M., (2002) The use of PCR technique for the identification of *Cryptosporidium parvum* isolated from diarrhoeic buffalo calves. In: *Proceedings of the 54th Annual Convention and Scientific Sessions of the Sri Lanka Veterinary Association*. 3-4th May, 2002. Plant Genetic Resource Centre, Gannoruwa, Peradeniya. Pp- 14.
21. Senasinghe, N.D., Rajapaksha, W.R.A.K.J.S, Faizal, A.C.M., Rajapakse, R.P.V.J., Widmer, G. (2003) Prevalence of Porcine *Cryptosporidium* infection in Sri Lanka- A preliminary study. In: *Proceedings of the Annual Research Sessions, University of Peradeniya*. Vol. 8.
22. Senasinghe, N.D., Alhassan, A., Yokoyama, N., Igarashi, I. (2006) Evaluation of enzyme linked immunosorbent assays using recombinant rhoptry associated protein antigens for the detection of *Babesia* species specific antibodies. In: *Proceedings of the Annual Convention and Scientific Sessions of the Sri Lanka Veterinary Association*. 2nd May, 2006. Sri Lanka Veterinary Journal. Vol.35. Pp- 5.
23. Senasinghe, N.D., Navaratne, M.B., Faizal, A.C.M., Rajapakse, R.P.V.J., Rajapaksha W.R.A.K.J.S., Silva, W.M.J., Wijayatilleke, S.S., Kappagoda, K.D.M.N. (2007) A preliminary study on the prevalence of Gastro intestinal parasites of swine in Sri Lanka. In: *Proceedings of the 59th Annual Convention and Scientific Sessions of the Sri Lanka Veterinary Association*.
24. Senasinghe, N. D., Dematawewa, C. M. B., Iddamaldeniya, S.S., Navaratne, M. B., Dissanayake, D.M.M.B., Kappagoda, K.D.M.N., Abeyratne, S. K.¹, Attanayake, A.I. (2008) Preliminary observations on the distribution of bovine hard ticks (Ixodidae) in five provinces of Sri Lanka. . In: *Proceedings of*

the 60th Annual Convention and Scientific Sessions of the Sri Lanka Veterinary Association. 29th-30th May, 2008. Sri Lanka Veterinary Journal. Vol.55. Pp-28.

25. Senasinghe, N. D., Navaratne, M. B., Rajapakse, R. P. V. J., Dematawewa, C. M. B., Faizal, A. C. M., Rajapaksha, W. R. A. K. J. S., Wijayatileke, H. V. S. S., Silva, W. M. J. (2008) Factors affecting *Cryptosporidium* infection of pigs in five districts of Sri Lanka In: *Proceedings of the 60th Annual Convention and Scientific Sessions of the Sri Lanka Veterinary Association. 29th-30th May, 2008. Sri Lanka Veterinary Journal. Vol.55. Pp-31.*
26. Silva, S.S.P., Mangalika, U.L.P., Premalal, G.G.C. (2009). Feeds and feeding-Feed Composition tables. *Hand Book of Dairy Nutrition-Sri Lanka, American Soybean Association. pp 95-106*
27. Silva, S.S.P., Singh, C.K., Robinson, P.H., Krishnamoorthy, U., Mangalika, U.L.P. (2009). Feeds and feeding-Diet formulation. *Hand Book of Dairy Nutrition-Sri Lanka, American Soybean Association. pp 107-115*
28. Sugeeshwari, S., Ranasinghe, J.G.S., Silva, S.S.P., Kumbukage, T.R., Walisinghe, H.A., Shivakanesan, S. (2009). Inclusion of commercial protein supplement (Nupro) containing nucleotides in feed on biochemical and immune parameters of laboratory mice. *Proceedings of the 61st Annual Convention of the Sri Lanka Veterinary Association, 27 March 2009, pp 41.*
29. Ubeyratne, J.K.H., Kleer, J., Hildebrandt, G., Khattiya, R., Padungtod, P (2008). Microbiological Quality of Marketed *Penaeus Monodon* Shrimps in North Western Province, Sri Lanka. The 15th Congress of the Federation of Asian Veterinary Association, FAVA & OIE Symposium, 27-30 October 2008, Bangkok, Thailand.
30. Ubeyratne, J. K.H., Kleer, J., Hildebrandt, G., Fries, R., Khattiya, R., Padungtod, P., Baumann, M.P.O., Zessin, K.-H (2008). Prevalence of *Salmonella* in marketed *Penaeus monodon* shrimps in North Western Province, Sri Lanka. *Berliner und Münchener Tierärztliche Wochenschrift (BMTW). 121, 418-421, DOI 10.2376/0005-9366-121-418.*
31. Ubeyratne, J.K.H. and Somaratne, M. (2008). Isolation of *Arcobacter* spp. (aerotolerant *Campylobacter*) from *Chaetoceros* algae culture in a shrimp hatchery in Chilaw. 60th Annual Convention of the Sri Lanka Veterinary Association

32. Ubeyratne, J.K.H., Hildebrandt, G., Kleer, J., Khattiya, R. and Padungtod, P. (2008). Antibiotic susceptibility of salmonellae in shrimp (*Penaeus monodon*) available at retail markets. 60th Annual Convention of the Sri Lanka Veterinary Association
33. Ubeyratne, J.K.H., Dematawewa, C.M.B. and Cyril, H.W (2004). Use of cactus fruit juice as a natural colouring agent in preparation of chicken sausages. 56th Annual Convention of the Sri Lanka Veterinary Association
34. Ubeyratne, J.K.H. (2009). Notifiable Avian Influenza. Twentieth Annual General Meeting of State Veterinary Surgeons Association, Sri Lanka
35. Walisinghe, H.A., Ranasinghe, J.G.S., Silva, S.S.P., Kumbukage, T.R., Sugeeshwari, S., Shivakanesan, S. (2009). Organic Selenium (Sel-Plex) supplementation on lipid profile, plasma proteins and blood counts of laboratory mice. *Proceedings of the 61st Annual Convention of the Sri Lanka Veterinary Association, 27 March 2009, pp 42.*
36. Weerasinghe W.M.S.P., Dematawewa C.M.B., Chandrasiri A.D.N. Gamage D.V.S. de S. and Malkanthi R.M.S., (2009) Use of Wood's function to model lactation curves for pure Friesian cows under large-scale semi intensive management in Sri Lanka. *Sri Lanka Veterinary Journal* 55:17.
37. Weerasinghe W.M.S.P., Abeygunawardana W.W., Malkanthi R.M.S., Samaranayake L.W.N. and Chandrasiri A.D.N. (2009) Use of Different semen extenders in swine artificial insemination in Sri Lanka. *Sri Lanka Veterinary Journal* 55:33.
38. Widurasinghe, M.K., Gunaratne, S.P., Silva, S.S.P. (2009). Total and available phosphor Content in di-calcium phosphate used in animal feed. *Proceedings of the 61st Annual Convention of the Sri Lanka Veterinary Association, 27 March 2009, pp 38.*

Income

| | Products & Services | Jan | Feb | March | April | May | June | July | Aug | Sep | Oct | Nov | Dec | Annual Income (Rs.) |
|----|---|-----------|-----------|------------|------------|------------|------------|-----------|-----------|------------|------------|------------|--------------|---------------------|
| 1 | Yoghurt & curd cultures | | 700.00 | 3,500.00 | 4,100.00 | 1,400.00 | 5,000.00 | 2,800.00 | 1,200.00 | 4,300.00 | 3,800.00 | 4,400.00 | 400.00 | 31,600.00 |
| 2 | Milk - Buffalo | | | | | | | | | | | | | |
| | - Cattle | 1,365.00 | 4,995.00 | 9,840.00 | 7,635.00 | 6,975.00 | 4,275.00 | 4,965.00 | 5,820.00 | 4,475.00 | 4,905.00 | 3,157.50 | 1,755.00 | 60,162.50 |
| 3 | Feed analysis | 28,950.00 | 24,450.00 | 18,725.00 | 25,250.00 | 26,700.00 | 23,800.00 | 31,850.00 | 22,980.00 | 34,950.00 | 24,950.00 | 23,650.00 | 40,150.00 | 326,405.00 |
| 4 | Feed formulation | 420.00 | 1,530.00 | 1,260.00 | 600.00 | 900.00 | 1,320.00 | 950.00 | 1,260.00 | 600.00 | 900.00 | 960.00 | 600.00 | 11,300.00 |
| 5 | Examination of blood smears | 500.00 | 230.00 | 150.00 | 285.00 | 400.00 | 775.00 | 500.00 | 600.00 | 565.00 | 600.00 | 300.00 | 1,050.00 | 5,955.00 |
| 6 | Examination of dung sample | | 1,500.00 | 345.00 | 1,840.00 | | 945.00 | 585.00 | | | 200.00 | 600.00 | | 6,015.00 |
| 7 | Poultry postmortems & disease diagnosis | 475.00 | 350.00 | 650.00 | 500.00 | 825.00 | 925.00 | 2,000.00 | 750.00 | 775.00 | 375.00 | 525.00 | 700.00 | 8,850.00 |
| 8 | Milk sample and milk products analysis | 500.00 | 2,410.00 | 350.00 | 3,180.00 | 1,400.00 | 2,860.00 | 400.00 | 380.00 | 730.00 | 2,750.00 | 2,480.00 | 1,170.00 | 18,610.00 |
| 9 | Analysis of soil samples | | | | | | 1,800.00 | | | | | | | 1,800.00 |
| 10 | Grass sample testing | | | | | | | | | | | | | |
| 11 | Pullorum antigen | 39,000.00 | 84,000.00 | 59,188.00 | 93,000.00 | 78,000.00 | 16,250.00 | 73,000.00 | 74,000.00 | 19,099.00 | 42,000.00 | 75,720.00 | 59,490.00 | 712,747.00 |
| 12 | Day Old /Month old chicks | 91,385.00 | 1,755.00 | 115,205.00 | 107,255.00 | 170,825.00 | 106,695.00 | 89,055.00 | 73,675.00 | 135,870.00 | 98,420.00 | 167,445.00 | 152,910.00 | 1,310,495.00 |
| 13 | Poultry meat | 600.00 | | | | 600.00 | 1,880.00 | | | | | 1,000.00 | | 4,080.00 |
| 14 | Eggs | 9,330.00 | | 2,828.00 | | 190.00 | 740.00 | 1,030.00 | 755.00 | 7,560.00 | 362.00 | 195.00 | 290.00 | 23,280.00 |
| 15 | Poultry litter | 340.00 | | 3,220.00 | | 320.00 | 900.00 | 1,890.00 | 1,550.00 | 620.00 | 195.00 | 1,870.00 | 500.00 | 11,405.00 |
| 16 | Goat & pig postmortems | | 100.00 | | | | | | | | | | | 100.00 |
| 17 | Rabbit | | | | | | | | | | | | | |
| 18 | Rabbit postmortems | | | | 150.00 | | | | | | | | | 150.00 |
| 19 | Guinea pigs | 600.00 | | | | | | | 250.00 | 100.00 | | | 350.00 | 1,300.00 |
| 20 | Mice | 30.00 | 366.00 | 100.00 | 430.00 | 20.00 | | 4.00 | 110.00 | | 464.00 | | 82.00 | 1,606.00 |
| 21 | Wart vaccine | 200.00 | 300.00 | 50.00 | 350.00 | 50.00 | 150.00 | 100.00 | | 150.00 | | 250.00 | 50.00 | 1,650.00 |
| 22 | Department Manuals | 45.00 | 116.00 | 99.00 | | | | | 24.00 | | | | | 284.00 |
| 23 | Miscellaneous | 35,586.00 | 1,773.00 | 121,598.01 | 3,920.00 | 35,747.00 | 15,145.00 | 43,642.00 | 8,518.75 | 89,384.00 | 114,219.50 | 33,195.00 | 66,676.76 | 569,405.02 |
| | | | | | | | | | | | | | Total | 3,107,199.52 |

Annexure -VI

Names of Officers Underwent Overseas Training

| No. | Name of the Officer | Course / Programme | Country |
|-----|-------------------------------|---|-------------|
| 1. | Mr.A.K.H. Kumari Navaratne | Netherlands fellowship - Diploma in Dairy Husbandry & Milk Processing 2009. | Netherlands |
| 2 | Dr. T.P. Wijethilaka | “ Monitoring and evaluation for results ” Course | India |
| 3 | Dr. K.D.Ariyapala | “ Monitoring and evaluation for results ” Course | India |
| 4. | Dr. B.C.Wickramasooriya | “ Monitoring and evaluation for results ” Course | India |
| 5. | Dr. A.D.N.Chandrasiri | Second Meeting of the Chief Veterinary Surgeons | Bangladesh |
| 6. | Dr(Ms) .A.M.Hewakopara | Second Meeting of the Chief Veterinary Surgeons | Bangladesh |
| 7. | Dr.(Ms) H.M.S.P. Herath | 77 th General Session of the International committee of the OIE | |
| 8. | Dr.P.G.Sunil | Cattle Artificial Insemination Extension systems. | |
| 9 | Dr. S. Chandrasekara | The 2 nd FAO-APHCA/OIE regional workshop on Brucellosis diagnosis and control with an emphasis on <i>Brucella melitensis</i> | Thailand |
| 10 | Dr.G.G.A.Jayawickrama | Training course on the preventive and control measures on AI pandemic | Thailand |
| 11. | Dr. (Ms.) R.Hettiarachchi | OIE/EAO Global conference on Foot and Mouth disease | Paraguay |
| 12. | Dr.H.M.A.Chandrasoma | FAO/OIE Sub-Regional meeting on GE-TADS for SAARC region in collaboration with SAARC Secretariat | Nepal |
| 13. | Ms.Talata Ratnayaka | PhD Program at an ICAR institute/State Agricultural University. | India |
| 14. | Dr. D.M.R.B. Dissanayke | FAO/APHCA/OIE SEAFMD Training workshop on GIS for Animal health Management | Thailand |
| 15. | Dr. P. Wijewantha | 5 th Meeting of the SAARC technical committee on Agriculture Rural Development | Bangladesh |
| 16. | Dr. J.K.H. Ubeyrathne | Workshop on surveillance on viral zoonoses of Asia Pacific | Thailand |
| 17. | Dr. H.P.V.D.S.Bandara | Counter part training under the small scale dairy farming improvement through genetic and feeding management. | Japan |
| 18. | Dr(Ms) . S.L. Jayasinghe | 2 nd OIE regional meeting on strengthening Animal health information Network in Asia. | Japan |
| 19. | Dr. A.G. Liynagamage | ICAR CARP study visit in the field of livestock production | India |
| 20. | Dr.J.Dharmawardana | ICAR CARP study visit in the field of livestock production | India |
| 21. | Dr. (Ms.) K.P.G.K. Badralatha | OIE Regional Workshop on Communication | Singapore |
| 22. | Dr. J. Dharmawardana | American Bio safety , Association conference. | USA |
| 23. | Dr. (Ms) H.M.S.P. Herath | 26 th conference of the OIE regional commission for Asia the Far East and Oceania | Thailand |
| 24. | Dr.(Ms) H.M.R.K. Dissanyake | Training programme on epidemiology and surveillance of zoonotic Transboundry Disease. | Thailand |
| 25. | Dr (Ms) J.K.H.Ubeyratne | Community based surveillance on rabies in Sri Lanka. | Thailand |
| 26. | Dr.(Ms) R. Hettiarachchi | Rinderpest virus and vaccine production workshop | Italy |
| 27. | Ms. D.M.B.M. Dissanayake | Programme on new Dimensions in Agricultural Extension Management for SAARC Countries | India |
| 29. | Mr. H. A. Vijithasiri | Training on molecular diagnosis of Avian Influenza | India |
| 30. | Mr. H. A. Maithripala | Training on molecular diagnosis of Avian Influenza | India |

Special Development Projects (continue) – 2010

- 1 Socio Economic Development Project (Swine and Poultry)
- 2 Quality assurance program
3. Implementation of Livestock Statues
4. Strengthen of Animal Quarantine and Inspection Service
- 5 Control of contagious diseases
- 6 Livestock Health Improvement
- 7 Livestock Research
8. Establishment of Veterinary Hospitals
- 9 Livestock Breeding Project
- 10 Goat Development Project
- 11 Information and propaganda
- 12 Books and Periodicals
- 13 Self Employment Training
- 14 Increase the Availability of Heifer calves
- 15 Improvement of service delivery system of field veterinary offices

Provincial Activities

Progress Of Services / Activities of Provincial DAPH - 2009

| Dispensary cases | WP | CP | SP | NP | EP | N C P | N WP | Uva | SAB | Total |
|--|-----------|-----------|-----------|-----------|-----------|------------------|-------------|------------|------------|--------------|
| Cattle/ Buffalo | 5217 | 3796 | 2947 | 4720 | 5864 | 4902 | 9586 | 2608 | 3340 | 42980 |
| Dogs | 3567 | 3740 | 1935 | 7650 | 816 | 1583 | 3618 | 1558 | 3451 | 27918 |
| Sub Total | 8784 | 7536 | 4882 | 12370 | 6680 | 6485 | 13204 | 4166 | 6791 | |
| Field Cases | | | | | | | | | | |
| Cattle/ Buffalo | 3402 | 5323 | 2026 | 1726 | 5991 | 6338 | 10064 | 3881 | 3880 | 42631 |
| Dogs | 25 | 185 | 22 | 36 | 163 | 1 | 13 | 21 | 50 | 516 |
| Sub Total | 3427 | 5508 | 2048 | 1762 | 6154 | 6339 | 10077 | 3902 | 3930 | |
| | | | | | | | | | | |
| Issue of Health Certificates | WP | CP | SP | NP | EP | N C P | N WP | Uva | SAB | Total |
| Cattle | 268 | 644 | 109 | 38 | 321 | 425 | 606 | 197 | 102 | 2710 |
| Buffalo | 59 | 21 | 66 | 6 | 31 | 31 | 43 | 6 | 10 | 273 |
| Sub Total | 327 | 665 | 175 | 44 | 352 | 456 | 649 | 203 | 112 | |
| Numbers of animals (Issued Health Certificate) | WP | CP | SP | NP | EP | N C P | N WP | Uva | SAB | Total |
| Cattle | 932 | 1230 | 303 | 57 | 1926 | 2461 | 2926 | 456 | 244 | 10535 |
| Buffalo | 144 | 27 | 500 | 43 | 272 | 324 | 185 | 76 | 23 | 1594 |
| Sub Total | 1076 | 1257 | 803 | 100 | 2198 | 2785 | 3111 | 532 | 267 | |

Milk Collection by Main Milk Collecting Organizations – 2009

| <u>Province</u> | <u>District</u> | <u>Milk Collection (L)</u> |
|----------------------|-----------------|----------------------------|
| Western | Colombo | 907,754 |
| | Gampaha | 5,216,843 |
| | Kalutara | 1,139,674 |
| Sub Total | | 7,264,269 |
| Central | Kandy | 11,998,891 |
| | Matale | 4,798,642 |
| | Nuwara-Eliya | 27,238,357 |
| Sub Total | | 44,035,889 |
| Southern | Galle | 492,954 |
| | Hambantota | 388,302 |
| | Matara | 430,384 |
| Sub Total | | 1,311,640 |
| North Central | Anuradhapura | 14,724,812 |
| | Polonnaruwa | 2,230,315 |
| Sub Total | | 16,955,127 |
| North western | Kurunegala | 15,450,013 |
| | Puttlam | 9,070,240 |
| Sub Total | | 24,820,253 |
| Northern | Jaffna | - |
| | Kilinochchi | - |
| | Mannar | - |
| | Mullativu | 90,723 |
| | Vauniya | - |
| Sub Total | | 90,723 |
| Eastern | Ampara | 4,454,317 |
| | Batticaloa | 4,073,600 |
| | Trincomalee | 672,377 |
| Sub Total | | 9,200,294 |
| Uva | Badulla | 10,287,934 |
| | Monaragala | 2,313,972 |
| Sub Total | | 12,601,906 |
| Sabaragamuwa | Kegalle | 357,573 |
| | Rathnapura | 940,754 |
| Sub Total | | 1,298,327 |
| Other | | 5,078,239 |
| Island Total | | 122,656,667 |

Note: Data Collection from Ambewela Livestock Co.Ltd, Cargills Dairies, , Fonterra Brands Lanka Ltd., Lanka Dairies Ltd, Milco Pvt Ltd, Nestle Lanka Ltd , Noorani Estates Ltd, Pattipola Livestock Company Ltd., Richlife Ltd and Swiss Cheese Company Ltd Kotmale

Quarantine Holdings and the Period of Quarantine- 2009

| Station | Type of Animals | Strain/breed | No. of animals | Country of Origin | Period of Quarantine |
|--------------------|-----------------|-------------------|----------------|-------------------|----------------------|
| On farm quarantine | Zoo animals | Green Tree Python | 03 | UK | 11.02.09-11.03.09 |
| On farm quarantine | Zoo animals | Dwarf Crocodile | 02 | Germany | 10.06.09-10.07.09 |
| On farm quarantine | Zoo animals | Hippo-Zo bred | 01-Male | Singapore | 19.06.09-19.07.09 |
| On farm quarantine | Elephant | Elephas maximus | 01 | Myanmar | 13.10.09-13.11.09 |
| AQS Colombo | Horses | Thoroughbred | 05 | India | 20.10.09-16.11.09 |

Details of Consignments under Quarantine Surveillance in 2009

| Type of Animal/Animal-product/Animal By-product | | No. of consignments arrived | No. of consignments inspected. |
|---|--|---|---|
| 1. | DOC - Grand Parents - Layer Parents - Broiler parents | 06 12 38 | 06 12 38 |
| 2. | Meat - Poultry - Beef - Veal - Mutton - Lamb - Pork - Duck - Turkey - Venison - Casings | 27 25 - 25 22 - 02 01 - 02 | 27 25 - 25 22 - 02 01 - 02 |
| 3. | Meat and Bone Meal | 105 | 105 |
| 4. | Ornamental fish | Marine - 222 Fresh - 37 | Marine - 222 Fresh - 37 |
| 5. | Zoo animals/Horses | 02 | 02 |
| 6. | Dogs/Cats | 232 | 232 |
| 7. | Rabbits/ guinea pigs | 01 | 01 |
| 8. | Prawn feed | 208 | 208 |
| 9. | Tallow | 58 | 58 |
| 10. | Gelatine | 20 | 20 |
| 11. | Egg powder | 05 | 05 |
| 12. | Egg Albumin | 03 | 03 |
| 13. | Feather /Skins/Bristles - Other Products | 81 | 81 |
| 14. | Frozen fish | 321 | 321 |
| 15. | Fish Food | 16 | 16 |
| 16. | Leather | 43 | 43 |
| 17. | Feed Ingredients | 557 | 557 |
| 18. | Chicken products | 17 | 17 |
| 19. | Fish meal | 178 | 178 |
| 20. | Dried sea leach | - | - |
| 21. | Vaccines | 04 | 04 |
| 22. | Hormone | - | - |

Note:

BSE clearance: Screened the applications and released 647 consignments under BSE Clearance.

Animal Feed Ingredients of Agricultural Origin: for HPAI Clearance 557 Nos.

Fumigation: Number of by- products and feed ingredients fumigated before release - 53

Details of Consignments Detained in 2009

| No | Type of Consignment | Country of origin | Reason for destruction/detention | Quantity kg/No | Action taken |
|----|---|-------------------|----------------------------------|----------------------------|---|
| 1 | Cattle Leather(Accessories for playing instruments) | India | No import permit and IVHC | 24 pieces | After 01 month ,fulfilled the requirements and released with fumigation |
| 2 | Cats | Baharain | No import permit and IVHC * | 02 nos | Fulfilled the requirements and released |
| 3 | Chicken Meat | India | No Import permit and IVHC * | 02 Kg | Destroyed |
| 4 | Worms | France | -do- | 01 Sample | Destroyed |
| 5 | Fresh water fish | Singapore | -do- | Arawana-03 no Gold fish-16 | Re exported |
| 6 | Meat And Bone Meal | New Zealand | Contaminated | 84.98 MT | Destruction process going on |
| 7 | Tapioca Meal | Philippines | High Fungal count | 100 MT | Destroyed |

**I VHC-International Veterinary Health Certificate*

Export of Animals, Animal Products and Animal By-Products -2009

| Category | | Number/ Quantity |
|----------|---|-----------------------------|
| | Animals | |
| 01 | Dogs | 140 |
| 02 | Cats | 49 |
| 03 | Aviary | 02 |
| 04 | Day Old Chicks | 11 |
| 05 | Live Fish | 3175 |
| 06 | Zoo animals | 06 |
| 07 | Rabbit/Rat/Hamster/Guinea p pigs | 04 |
| 08 | Goats | - |
| | | |
| | Animal Products | Number/Quantity (MT) |
| 08 | Beef and Beef Products | 580 con;/ 26.60 MT |
| 09 | Whole Chicken | 05 con/ .04 MT |
| 10 | Chicken Products | 586 con/37.95 MT |
| 11 | Pork products | 347 con/127.00 MT |
| 12 | Mutton | 28 con/1.37 MT |
| 13 | Fish and Fish Products | 123 con/3.88 MT |
| 14 | Prawn/Crabs/Lobster | 166 con/10.67 MT |
| 15 | Table eggs Numbers | 117 con/486192 no |
| | | |
| | Animal By-Products | Quantity (MT) |
| 16 | Inedible tallow | - |
| 17 | Artist Brushes (paces) | 793414 |
| 18 | Bone Grist MT | - |
| 19 | Dog Chew -Nos | 3340310 |
| 20 | Leather MT | 52.31 |
| 21 | Hide and Skin/MT | .01 |
| 22 | Other Products, No-(head bands Caps, bags/drums) | 107160 |
| 23 | Hats-Nos | 5258 |

RAW MATERIAL USAGE -2009

| CATEGORY | RAW MATERIAL | Quantity (MT) | |
|----------|--------------|---------------|----------|
| | | Local | Imported |

| | | | |
|--------------------|------------------------------------|----------|----------|
| Cereals | 1.Maize | 54279.1 | 6372 |
| | 2.wheat | | 35885 |
| | 3.Others(Sorghum),Milet | | 2405 |
| Cereal by products | 1.Rice Polish | 29527 | |
| | 2.Rice Bran | 560.3 | |
| | 3.Wheat pollard | | |
| | 4.Wheat Bran | *10837.5 | |
| | 5.Wheat Middlings | *4691 | |
| | 6.Broken Rice | 10 | |
| Oil Meals | 1.Coconut Meal | 1851.3 | |
| | 2.Soya Bean Meal | | 61780.45 |
| | 3.Rape Seed Meal | | 1160 |
| | 4.Other (hypro soya & fuul fat So) | | 3191 |
| Animal by Products | 1.Fish Meal | | 6825.75 |
| | 2.Meat & Bone Meal | | 10829 |
| | 3.Others | | |
| Minerals | 1.Calcium Carbonate | 1577 | |
| | 2.Salt | 39 | |
| Vitamins | 1.Mineral mixture | | |
| | 2.Vitamin Pre Mixtures | | |
| Mineral Supplement | 1.Shell Grit | 4522.6 | |
| | 2.Di Calcium Phosphate | 65.2 | 1486 |
| | 3.Pre-Mixes | 25.15 | |
| Additives | 1.Vitamins | | 220.261 |
| | 2.Minerals & Trace Elements | | 236.006 |
| | 3.Bindors | | 81.48 |
| | 4.Growth promoters | | 50.153 |
| | 5.Anticoccidial agents | | 38.49 |
| | 6.Enzymes | | 15.153 |
| Amino Acids | 1.L-Lysine | | 380 |
| | 2.Dl-Methionine | | 366 |
| | 3.Dl-Methionine Liquid | | 117 |
| Others(Specify) | Dhal husk | 152 | |
| | Poultry offal Meal | 171 | |
| | Poultry Fat | 44 | |
| | Crude Palm Oil | 60 | 40 |
| | Molasses | 39 | |

**Locally Purchased*

Present Cadre Position of the Department

| | Post | Approved Cadre | Actual Cadre | | |
|----|------------------|----------------|--------------|----------|----------|
| | | | 292-1-01 | 292-1-02 | 292-1-03 |
| 01 | Director General | 01 | 01 | - | - |

| | | | | | |
|----|---------------------------------------|----|----|----|----|
| 02 | Additional Director General | 01 | 01 | - | - |
| 03 | Director (Administration) | 01 | 01 | - | - |
| 04 | Director (Finance) | 01 | 01 | - | - |
| 05 | Director (AP&H Service) | 05 | 01 | 01 | 02 |
| 06 | Deputy Director (Finance) | 02 | 02 | - | - |
| 07 | Deputy Director (VR) | 01 | - | - | - |
| 08 | Deputy Director (Research) | 01 | | 01 | |
| 09 | Deputy Director (Technical services) | 01 | | 01 | |
| 10 | Accountant 111 | 01 | 01 | | |
| 11 | Deputy Director (AP&H Service) | 05 | - | - | - |
| 12 | Assistant Director (Administration) | 01 | 01 | - | - |
| 13 | Superintendent of Vaccine Production | 01 | - | 01 | - |
| 14 | Registrar (Animal Feed) | 01 | 01 | - | - |
| 15 | Registrar (Veterinary Drugs) | 01 | 01 | - | - |
| 16 | Chief Animal Quarantine Officer | 01 | 01 | - | - |
| 17 | Animal Quarantine Officer | 04 | 04 | - | - |
| 18 | Veterinary Research Officer | 24 | - | 20 | - |
| 19 | Veterinary Investigation Officer | 17 | - | 15 | - |
| 20 | Veterinary Surgeon | 34 | 12 | 14 | 18 |
| 21 | Research Officer | 05 | - | 04 | - |
| 22 | Agriculture Economist | 01 | - | - | - |
| 23 | Livestock Officer | 16 | - | 01 | 09 |
| 24 | Administrative Officer | 02 | 01 | 01 | - |
| 25 | Statistician | 01 | 01 | - | - |
| 26 | Translator | 02 | 01 | - | - |
| 27 | Work supervisor | 01 | 01 | | |
| 28 | Livestock Development Officer | 65 | 10 | 11 | 26 |
| 29 | Budget Assistant | 02 | 01 | - | - |
| 30 | Librarian | 01 | - | - | 01 |
| 31 | Development Officer | 05 | 05 | | - |

| | Post | Approved Cadre | Actual Cadre | | |
|----|---|-------------------|--------------|------------|------------|
| | | | 292-1-01 | 292-1-02 | 292-1-03 |
| 32 | Development Assistant | 32 | 16 | 05 | 10 |
| 33 | Law Assistant | 02 | 01 | - | - |
| 34 | Program Assistant (document) | 02 | 01 | 01 | - |
| 35 | Program Assistant (Public Relations) | 02 | 01 | 01 | - |
| 36 | Monitoring Assistant | 20 | 01 | 02 | 03 |
| 37 | Program Assistant | 19 | 01 | 04 | 03 |
| 38 | Program Assistant (Audio Visual) | 10 | - | | 02 |
| 39 | Program Assistant (Communication) | 02 | - | - | 02 |
| 40 | Program Assistant (Media) | 05 | - | 01 | - |
| 41 | Technical Assistant (Machinery) | 01 | - | - | - |
| 42 | Assistant Librarian | 01 | - | - | 01 |
| 43 | Management Assistant Service | 67 | 40 | 14 | 10 |
| 44 | Research Assistant | 64 | 02 | 40 | 02 |
| 45 | Driver | 47 | 12 | 20 | 15 |
| 46 | Watcher | 21 | 02 | - | 07 |
| 47 | Laboratory Sub Assistant | 12 | - | 11 | 01 |
| 48 | K.K.S. I and II | 08 | 11 | 04 | 07 |
| 49 | Office Labourer | 24 | 03 | 01 | 04 |
| 50 | Special Labourer | 19 | 01 | 02 | 02 |
| 51 | Skilled Labourer | 08 | - | - | - |
| 52 | Workshop Technician | 02 | - | - | - |
| 53 | Store men | 01 | - | 01 | - |
| 54 | Mechanic | 03 | - | 01 | 01 |
| 55 | Boiler man | 01 | - | 01 | - |
| 56 | Carpenter | 03 | - | 02 | 01 |
| 57 | Electrician | 02 | - | 01 | - |
| 58 | Tractor Operator | 03 | - | - | 01 |
| 59 | Lorry Cleaner | 01 | | | |
| 60 | Bungalow Keeper | 01 | - | - | - |
| 61 | Garden Labourer | 02 | 01 | - | - |
| 62 | Sanitary Labourer | 03 | - | - | 02 |
| 63 | Unskilled Labourer | 124 | 06 | 41 | 42 |
| 64 | Unskilled Labourer (Contract) Thelahara | | | | 11 |
| 65 | Unskilled Labourer (Contract) | | | 10 | 15 |
| | Total | 734 | 147 | 233 | 198 |

Financial Allocation and the expenditure Summery 2009

| | Allocation (Mn.) | Expenditure (Mn.) | Balance at 31.12.2009 (Mn.) | Expenditure as % of Allocation |
|--|---------------------|----------------------|-----------------------------------|-----------------------------------|
| Project 1 | | | | |
| Capital Expenditure | 22,500 | 6,873 | 15,627 | 30.54 |
| Recurrent expenditure | 77,300 | 64,689 | 12,611 | 83.68 |
| Total | 99,800 | 71,562 | 28,238 | 71.70 |
| Project 11 | | | | |
| Capital Expenditure | 230,300 | 105,108 | 125,192 | 45.63 |
| Recurrent expenditure | 111,825 | 106,580 | 5,245 | 95.30 |
| Total | 342,125 | 211,688 | 130,437 | 61.87 |
| Project 111 | | | | |
| Capital Expenditure | 328,800 | 86,558 | 242,242 | 26.32 |
| Recurrent expenditure | 93,610 | 91,124 | 2,486 | 97.34 |
| Total | 422,410 | 177,682 | 244,728 | 42.06 |
| Total Capital Expenditure | 581,600 | 198,539 | 383,061 | 34.13 |
| Total Recurrent expenditure | 282,735 | 262,393 | 20,342 | 92.80 |
| Total Capital & Recurrent expenditure | 864,335 | 460,932 | 403,403 | 53.32 |