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Ceylon

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Figure 1: Organization of Veterinary Services, Ceylon.

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Ceylon

A. General

Livestock production occupies an unimportant place in Ceylon's economy. The farm population is traditionally disinterested in animal raising and ignorant of proper management or disease control measures. Veterinary services are understaffed, poorly organized and currently incapable of coping with most disease problems. Religious prejudice among some segments of the population against the destruction of sick animals is another factor responsible for the low standard of animal health in Ceylon. Food sanitation and zoonoses control are seriously hindered by a lack of cooperation between the veterinary and medical services. Government authorities have recognized the need for development of an efficient livestock industry and have repeatedly sought the advice of foreign technical experts. However, with the exception of recent improvement in poultry production, programs have not progressed beyond the planning stage. 2/ 4/ 20/ 21/ 22/ 23/

B. Environmental factors affecting health

1. Topography and climate -- Luxuriant growth of suitable forage crops, under proper management, can provide adequate fodder for efficient livestock production. The hot tropical climate favors the raising of buffalo and indigenous herds of cattle and goats over the less climatically adaptable exotic breeds. 2/ 11/ 21/ 25/ 29/

2. Socio-economic pattern -- Lack of pastoral tradition among Ceylon's agricultural population is an important limiting factor in the development of sound livestock production. 6/ 20/ 21/

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4. Nutrition

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b. Food supply and distribution -- The inability of Ceylon's livestock and dairy industry to meet the demands for meat and dairy products, coupled with an inadequate distribution system, leaves large parts of the population with a substandard intake of animal proteins. Ceylon imports goats for slaughter purposes as well as meat, eggs and dried milk to alleviate the shortage of locally produced animal supplies. 2/ 6/ 20/ 21/ 27/ 28/

c. Food sanitation, storage and technology -- Food sanitation in Ceylon is, in general, inadequate. There is a lack of refrigeration facilities and unhygienic conditions prevail in the majority of slaughterhouses, dairies and food stores. 9/ 20/ 21/ 23/ 24/

C. Diseases

2. Diseases of animals -- A number of serious animal diseases severely retard the development of Ceylon's livestock industry. The veterinary services, understaffed and poorly organized, are incapable of coping effectively with most disease problems. Unrestricted movement of diseased animals and the religious objection on the part of certain segments of the population to the destruction of animals for any reason, are other factors hindering effective disease control. Government veterinary authorities have recognized the importance of maintaining healthy livestock and have sought the assistance of foreign technical experts in the formulation of disease control programs; few of these programs, however, have progressed beyond the planning stage.

Ceylon presently is free from rinderpest; however, the importation of goats for slaughter purposes from India, where rinderpest is still widespread, presents a continuous possibility of introducing the disease. 4/ 9/ 13/ 20/ 21/ 22/

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a. Prevalent animal diseases

(1) Haemorrhagic septicemia -- Haemorrhagic septicemia is the most significant disease of cattle and buffalo in Ceylon. In 1955 and 1956 the disease assumed enzootic proportions; since then the incidence has declined, but haemorrhagic septicemia is still a major factor in animal losses.

Recently, veterinary authorities have expressed interest in the intensive bulk production of aerated broth culture haemorrhagic septicemia vaccine carried out in several Southeast Asian countries. Economical vaccine production by this method has enabled many countries in this area to carry out mass immunisation programs. Ceylon could duplicate such programs with currently available technical personnel provided necessary funds for field operations were appropriated.

Presently, vaccination is confined to valuable stock in government and certain private herds, and to animals in areas of serious outbreaks. This policy has little influence on the course of the disease and periodic enzootics can be expected as immunity from natural infections declines and new susceptible cattle populations develop. 1/ 2/ 5/ 8/ 20/ 21/

(2) Rabies -- Rabies is enzootic in Ceylon, the main reservoir being numerous stray dogs in both urban and rural areas. Monkeys, jackals and mongooses are also significant uncontrolled reservoirs.

Rabies causes an estimated average of 100 human fatalities annually. Aside from the Colombo (06-56N - 79-51E) Health Department, which employs two veterinarians, rabies control measures are carried out by medical officers and health inspectors under direction of the Deputy Director of Public Health Services. The Medical Research Institute performs diagnostic work and produces vaccine for human post-exposure treatment.

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Although Government authorities are fully aware of the significance of the disease, eradication or control are unlikely in the near future because of lack of cooperation between medical and veterinary services, the religious objection of some parts of the population to the destruction of stray dogs and the inability to produce or obtain sufficient quantities of canine rabies vaccine. 1/12/20/21/23/24/

(3) Helminthiases -- Helminthiases are an omnipresent problem in Ceylon. Gastro-intestinal infections as well as verminous bronchitis contribute to widespread unthriftiness in livestock.

Cerebrospinal nematodiasis, a mosquito borne Setaria spp. infection, invades the central nervous system of goats, cattle and horses. Losses resulting from paralysis are often severe. 1/ 2/ 20/

(4) Foot-and-mouth disease -- Foot-and-mouth disease (types O, A and C) is endemic in Ceylon. The disease is of relatively low virulence for buffalo and indigenous cattle; however, European cattle and their crosses are more seriously affected. Aside from the importation of vaccine for the protection of government and valuable private herds, little effort is made to control the disease. 1/2/12/22/

(5) Brucellosis -- Bovine brucellosis is widespread in Ceylon. However, no incidence figures are available except from the government herds which have a reactor rate of about 20 percent. Control measures are confined to government and some private farms where calfhood vaccination with "Strain 19" and segregation of reactors is practiced. 18/ 21/ 22/

(6) Blood protozoan infections -- Tick borne anaplasmosis (A. marginale), gonderiosis (G. mutans), and babesiosis (B. bigemina), are common among buffalo and cattle in Ceylon. Native animals do not appear to be seriously affected; however, unthriftiness and stunted growth are frequent in cattle of the European breeds. 1/ 9/ 20/

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(7) Diseases of young animals -- Calf pneumonia, salmonellosis, colibacillosis and nutritional deficiencies frequently occur in young animals and seriously hinder the development of Ceylon's livestock industry. Veterinary activities involving methods of treatment or development of demonstration programs for sanitary handling of livestock, common in many countries, have not been undertaken to any great extent in Ceylon. 1/ 2/ 4/ 20/ 22/

(8) Poultry diseases -- Newcastle disease (Ranikhet) is the most significant of the diseases threatening Ceylon's expanding poultry industry. Veterinary authorities are conducting an extensive eradication campaign, consisting of free vaccination of young and adult birds and the dissemination of publicity regarding the nature and control of the disease.

Other important poultry diseases are leucosis, fowl pox, fowl plague, chronic respiratory disease and pullorum disease. 1/ 2/ 4/ 12/ 20/ 21/ 22/

b. Other important diseases -- Other important animal diseases in Ceylon are anthrax, blackleg, bovine mastitis, Johne's disease, coccidiosis and ectoparasitism. 1/ 4/ 9/ 20/ 21/ 22/

D. Veterinary organization and administration

1. Civilian

a. Organization -- The Deputy Director of Animal Health and Production is the principal veterinary authority in Ceylon. He directs the veterinary dispensaries, the Government Veterinary Hospital and Government Research Laboratory at Peradeniya (07-06N - 80-16E), the 22 artificial insemination centers, and also supervises the Karandagolla (07-30N - 80-27E) poultry station, the dairy at Undugoda (07-08N - 80-22E), as well as the seven government livestock farms located throughout the country.

Figure 1

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The Deputy Director of Animal Health and Production reports to the Department of Agriculture, which in turn is responsible to the Ministry of Agriculture and Food.

The Faculty of Veterinary Science at Peradeniya, which provides professional training for veterinarians, is a part of the autonomous University of Ceylon. The Faculty maintains liaison with the Deputy Director of Animal Health and Production and utilizes the Government Veterinary Hospital for teaching purposes.

The Deputy Director for Public Health Services, among whose responsibilities are the direction of rabies control measures and the supervision of food sanitation, has one veterinarian on his staff. The Deputy Director is responsible to the Department of Health which operates under the Ministry of Health.

Municipal Health Departments in a few of the larger cities employ a veterinarian who is primarily concerned with inspection of meat and milk. 16/20/21/22/23/25/

b. Legal control

(1) Licensure -- Graduation from an approved veterinary school in the Commonwealth, the United States or the Philippines, is required for licensure as a veterinary surgeon.

A license as veterinary practitioner may be obtained upon providing proof of having been engaged in the treatment of animals as principal means of livelihood for ten years immediately preceding the date of application. Licensing authority is vested in the Veterinary Council of Ceylon, consisting of the Deputy Director of Animal Health and Production, three veterinarians (elected by the licensed veterinarians), two members of the Senate of the University and two members of Parliament. 20/ 21/

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(2) Quarantine -- The Contagious Diseases (Animals) Ordinance, No. 25 of 1909, amended by the Contagious Diseases (Animals) (Amendment) Act, No. 33 of 1957, contains provision governing the import of domestic and other animals. ^{16/}

(3) Inspection -- Except in some major cities, such as Colombo, Kandy (07-18N - 80-38E) and Galle (06-02N - 80-13E), the inspection of meat and milk is in the hands of medical officers and public health inspectors who lack proper training in this field.

Many slaughterhouses operate without any inspection, resulting in the indiscriminate slaughter of animals unfit for human consumption. Veterinary authorities as well as foreign technical assistance experts have repeatedly urged the establishment of a National Meat Board to deal with the present unhygienic conditions in slaughterhouses and meat markets.

With the possible exception of the Colombo Central Dairy Plant, dairies in Ceylon fail to maintain adequate sanitary standards. The National Milk Board, established in 1954, has dealt mainly with economic problems and has not given sufficient attention to the sanitary aspects of milk production. ^{6/7/9/20/21/23/24/}

c. Professional veterinary medical organization -- The Ceylon Veterinary Association has considerable influence on all phases of veterinary medicine. The Association has been particularly active in its drive to remove the Government Veterinary Services from the authority of the Department of Agriculture by establishing a separate Veterinary Department directly under the Ministry of Agriculture and Food. ^{20/ 21/}

d. Veterinary research -- There is no evidence of significant veterinary research being conducted in Ceylon. Staff members of the Government Research Laboratory and the Faculty of Veterinary Science at the University are engaged in

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disease investigation, primarily dealing with helminthic and protozoan infections, but perform little if any original research. 20/ 21/

f. Emergency veterinary services -- The Ceylonese veterinary services lack the manpower, equipment and laboratory facilities to cope with any major emergency. In case of a serious epizootic Ceylon would be dependent on outside help. 20/ 21/

2. Military veterinary organization -- There is no evidence of military veterinary activities in Ceylon.

E. Veterinary manpower

Ceylon's present (March 1960) veterinary manpower, consisting of 109 veterinary surgeons and one veterinary practitioner, will have to be at least doubled in order to render adequate service. There is little interest in veterinary medicine, despite the fact that salaries for government veterinarians have been greatly improved within the past years and despite the efforts of the Veterinary Association to induce qualified men to enter the profession.

Approximately 80 veterinarians are employed by the Government and some municipalities, about 20 are engaged in private practice, and 9 veterinarians are instructors at the Faculty of Veterinary Science. A force of 60-70 lay technicians assists the veterinarians assigned to government veterinary dispensaries.

Most of the government veterinarians conduct a private practice aside from their official duties.

The Faculty of Veterinary Science at the University of Ceylon, Peradeniya, offers a four-year professional course leading to the degree of Bachelor of Veterinary Science (B.V.Sc.). The Faculty is capable of accommodating 20 new applicants each year; however, only about 30 students are currently enrolled. The standards of

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veterinary education in Ceylon are similar to those in India and Pakistan, but are not comparable to those in Japan, the United States, or the more advanced European countries. 3/ 9/ 20/ 21/

F. Veterinary medical facilities

There are approximately 30 veterinary dispensaries throughout the country.

Each dispensary is supervised by a government veterinary officer who provides treatment for livestock and gives advice on matters of animal health and management.

The Government maintains 22 artificial insemination centers, the main ones being located at Peradeniya, Kegalle (07-15N - 80-21E), and Jaffna (09-40N - 80-00E).

Diagnostic work as well as disease investigation is conducted at the Government Veterinary Research Laboratory in Peradeniya. The Laboratory also produces a number of vaccines and other biologicals.

The Government Veterinary Hospital at Peradeniya provides treatment for animals requiring hospitalization or major surgery and furnishes clinical facilities for the students of the Faculty of Veterinary Science at the University of Ceylon. 9/ 20/ 22/ 25/

G. Veterinary medical supplies and materials

Aside from the biologicals produced by the Government Research Laboratory, Ceylon imports all of her veterinary medicaments and materials, Great Britain, West Germany and the United States being the main suppliers. The Government Research Laboratory produces pullorum antigen and vaccines against anthrax, blackleg, brucellosis, calf pneumonia, haemorrhagic septicemia, fowl pox, and Newcastle disease. 20/ 21/ 22/

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H. Veterinary reference data -- Not included in this report.

I. Comments on principal sources

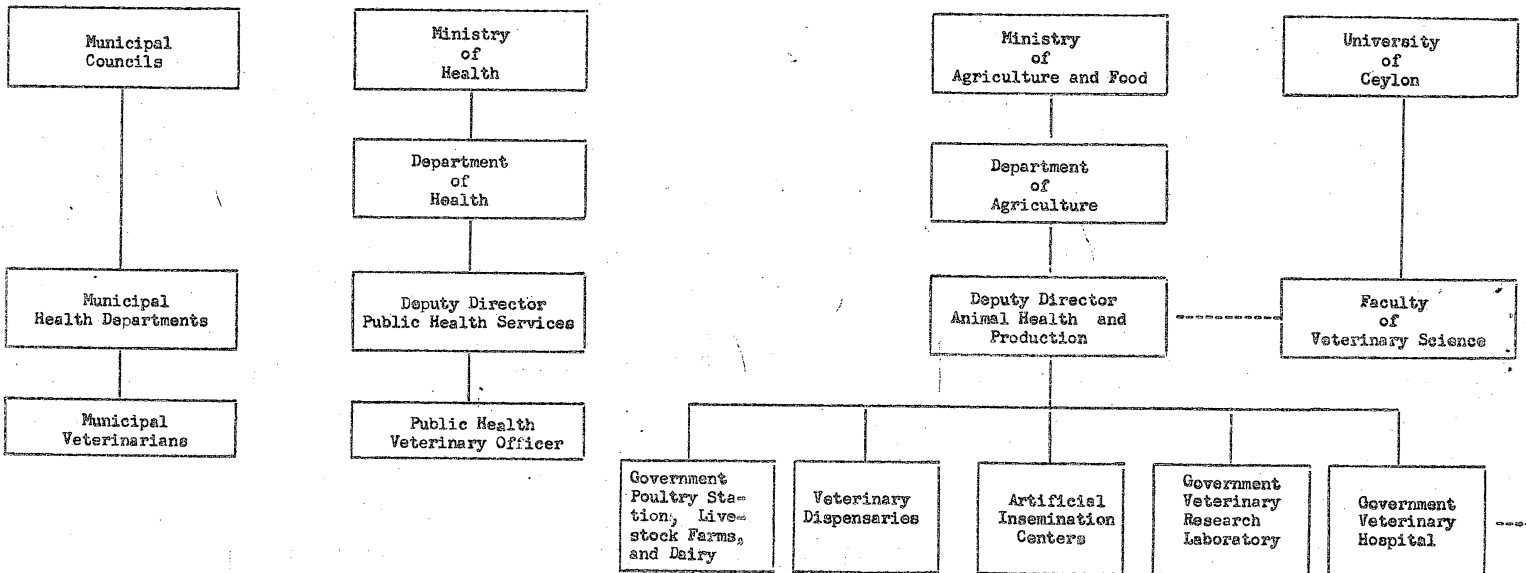
1. Evaluation -- The available publications and reports, while not always being sufficiently detailed, provided a reasonably accurate picture of Ceylon's animal disease problems and veterinary activities. Sources 1 and 2 were useful for most sections of this report. Sources 3, 5 and 6 provided data on animal diseases and source 4 contained information on veterinary facilities and organization of veterinary services.

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Figure 1: Organization of Veterinary Services, Ceylon.



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