
INTERNATIONAL VETERINARY ACTIVITIES

SIR THOMAS DALLING

(Consultant of the Food and Agriculture Organization of the
United Nations (FAO), Rome, Italy)

THE NUTRITION of the rapidly increasing human population throughout the world causes much concern and assistance is being given in several directions by international organizations to increase the production of food for human consumption. The Food and Agriculture Organization of the United Nations, a Member of the United Nations group of specialised agencies, was set up in October, 1944, and is one of these Organizations. Beginning with 42 Member Countries, the number has now increased to 76. The aims of FAO are :—(1) to help nations to raise the standard of living ; (2) to improve nutrition of the people of all countries ; (3) to increase the efficiency of farming, forestry and fisheries ; (4) to better the conditions of rural people ; (5) through all means to widen the opportunity of all people for productive work.

The importance of livestock in all countries is appreciated by the Organization and Animal Production receives much attention. Improvement in livestock production is urgently required to increase the availability of the much needed proteins of animal origin and of animal by-products. In addition, animals are still required in some regions for use for agricultural and transport purposes and their value in soil fertilization will probably continue. Improvement of animal health and control of animal diseases are recognised as vital factors in increasing animal production and efforts are being directed towards these ends. Although more livestock is necessary, it follows that the better the health of animals, the greater will be the production from smaller numbers of animals ; a smaller total area of land will be required to produce food for these smaller numbers and so, eventually, more land could be available to raise crops to feed the human population. Improvement of animal health and control and eradication of animal diseases constitutes a world-wide challenge which requires the active collaboration of all countries.

Most attention is, of course, being given to countries classified as under or less-developed, because the potentialities in some of them to increase animal production is great. Concurrently with work on

improvement in animal health and disease control, production of more and better feeding stuffs for animal consumption, improvement of pastures, improvement in some aspects of animal husbandry and improvement in breeds to meet their required purposes all receive attention. It is with animal health and diseases that most veterinary technical assistance is concerned.

Veterinary technical assistance is given in several ways. At the headquarters of the Organization in Rome there is a team of veterinarians, drawn from different countries, part of whose duty is to provide information and advice on veterinary subjects to any Member Country, on request. The requested information may already be available in FAO or it may be necessary to consult literature, reports, etc., or even to get into touch with veterinary and other authorities in different parts of the world. It is not uncommon to put veterinarians in personal touch with such authorities in other countries. There is an extensive library in FAO Headquarters, in which textbooks, journals and reports are available to the staff and they are freely made use of in supplying information, opinions and advice to Member Countries. The headquarters veterinarians are largely responsible for the veterinary field work carried out by FAO: they are in regular communication with the veterinarians assigned to Member Countries and supervise and advise them on their work. They visit Member countries periodically to discuss programmes with the responsible authorities, to give any necessary advice on veterinary topics and to take part in meetings on veterinary and other subjects of a local, regional or world-wide character. World-wide types of meetings are also held, from time to time, at headquarters, for which the necessary arrangements are in the hands of the veterinary staff. They also participate in meetings convened, separately or jointly with FAO, by other international organisations which have veterinary interests. Veterinarians from headquarters are sometimes called upon to be members of teams which visit countries or regions to carry out surveys on any particular subject concerning agricultural and allied projects. From the Animal Health Branch of the Organization information, collected from many sources, is supplied for publication and the Branch itself publishes articles of general interest. An example of such a publication is the Annual Year-book on Animal Health which contains full particulars in tabular form, of the incidence of animal diseases in countries throughout the world with particulars of the methods adopted for their control and a series of articles on topical subjects, some prepared in Rome and some by well-known veterinarians in various parts of the world.

INTERNATIONAL VETERINARY ACTIVITIES

Technical assistance to individual member countries is given in several ways. Following discussions in the country and in Rome, requests are made by the countries for technical assistance in specific subjects. The requests are placed in order of priority and are carried out according to the availability of the funds and the possibility of making detailed arrangements. Normally, one or more veterinarians, appointed by FAO, are assigned to the requesting country to proceed with the work. These veterinarians drawn from many parts of the world are usually experienced in the type of work required and have often had service in countries with climatic and other conditions similar to those of the country in question. Young veterinarians, specially qualified and experienced in some special veterinary subject may also be appointed, especially for work which does not demand experience of a special climatic condition.

A veterinarian assigned to a country works as an adviser, assisting and collaborating in planning and operating schemes for animal health improvement and disease control and in giving instruction to national veterinarians and others on techniques for the diagnosis, prevention and control of diseases.

For the satisfactory control of some animal diseases in a country and for preventing the introduction of disease, legislative action is necessary and regulations have to be formulated: FAO veterinarians give advice on this subject and often assist in drawing up the regulations.

Some of the veterinarians spend much of their time in the laboratories in the country to which they are assigned, teaching and supervising the preparation of biological products for use in animal disease control schemes. Others are concerned with the veterinary schools in the country and advise on and assist in the introduction of changes which are considered beneficial. Activities in slaughterhouses come under the purview of some of the assigned veterinarians. They advise on the construction and establishment of new slaughterhouses and alterations in existing premises to meet more modern requirements, plan operations and supervision of staff, advise on and give instruction in meat inspection, refrigeration techniques and safe disposal of waste and condemned material as well as on the care and inspection of animals destined for slaughter during their transport to and after collection at the slaughter-house.

Veterinarians work sometimes in more than one country in a region, devising schemes which may benefit the whole region by preventing spread of infections from country to country. One of the conditions imposed by FAO on member countries receiving such

technical assistance is that one or more national veterinarians are attached to the FAO veterinarian so that the work may be continued satisfactorily and without a break after his departure.

For the diagnosis of and control of many of the infectious diseases biological products are required. For various reasons including economy, the required materials are being produced in the different countries, where these products have been prepared in the past. More modern techniques are now in and result in more efficient products. Special equipment is required and FAO has supplied a considerable amount to a number of member countries. In the control of other diseases, drugs not available in a country or region are sometimes necessary, for example, for the control of parasitic diseases such as liver fluke disease and diseases caused by worms in the stomach and intestine of sheep and cattle. FAO has supplied considerable quantities of the necessary drugs in order that extensive control schemes could be successfully inaugurated. Similarly, the control of diseases caused by external parasites, for example, sheep scab, has been encouraged by the provision of a quantity of the necessary medicaments for use in the form of dips and sprays.

FAO provides assistance for training in modern scientific methods. This is done as much as possible by FAO veterinarians during their assignments to a country. In addition, however, fellowships are awarded by FAO to selected national veterinary personnel, enabling them to proceed to another country to receive special tuition and experience in a specific subject, a group of subjects, or in the more general aspects of animal health and disease control. Such trained national personnel, on return to their country at the completion of their training, are expected to be employed in the type of work in which they gained experience abroad, to meet the requirements in their country.

While fellowships are allotted mostly for individual travel and training, FAO also convenes and operates Training Centres for veterinarians from countries often in a region. The courses vary from more general instruction for 2-3 weeks on such subjects as the preparation and testing of virus-vaccines, to more detailed work for several months on subjects such as milk and meat hygiene and infertility in animals. For the courses of longer duration, the host country sometimes provides part of the necessary financial outlay.

In order to obtain up-to-date information on specific subjects and to bring together recognised world authorities on them, FAO has set up panels whose members, conversant with essential parts of the subject, meet from time to time and, together with FAO, prepare reports for general distribution. Examples are those dealing with

infertility in animals and with tick-borne diseases. FAO also links up with other international organizations in the formation and work of such panels, for example, brucellosis, created jointly by FAO and the World Health Organization (WHO), the subject being of much importance in both human and veterinary medicine.

For discussions of problems of animal health and control of animal diseases which affect the economy of a number of countries in a region and to draw the attention of governments to the steps which can be taken to improve the position, meetings, attended by representatives of the countries, are convened in the region. Sometimes such meetings are arranged jointly by FAO and another international organization—the International Office of Epizootics (OIE), which has been in existence since 1927 and whose headquarters is in Paris. The reports from such meetings, agreed by all present, are circulated to governments of all FAO member countries and are made available for distribution.

FAO collaborates with other international organisations interested in veterinary problems in different parts of the world. The International Office of Epizootics, mentioned above, is an independent organisation whose work is confined entirely to veterinary matters and whose finances are provided by its 63 member countries. In addition to convening regional meetings on veterinary problems often jointly with FAO, an annual meeting is held in Paris when delegates from member countries and observers from many parts of the world attend. In addition to receiving reports of the animal disease from member countries, papers are given and discussions take place on some of the most recent research work on animal disease problems. Representatives of FAO participate fully at these annual meetings.

The OIE also collects and disseminates information on outbreaks of diseases: information is sent to interested countries whenever received, and to all other countries at short regular intervals. OIE also publishes an interesting journal bi-monthly. Research work is encouraged and is sometimes financed by OIE. A close association exists between FAO and OIE.

The World Health Organization whose headquarters are in Geneva, is interested also in veterinary work, particularly in animal diseases which may have a bearing on human health. Meetings are held from time to time when full consideration is given to the most recent available information on diseases affecting both animals and man. These are attended by experts, both medical and veterinary, in the specific subjects and the meetings form a common ground for exchange of information, following which reliable and up-to-date reports are

published. Most of these meetings are arranged jointly by WHO and FAO. Milk and meat hygienes are also held with by WHO in collaboration with FAO. This collaboration is extremely valuable to both medical and veterinary services.

The Organization for European Economic Co-operation (OEEC) with its headquarters in Paris has also shown considerable interest in veterinary matters. At one time it had a Working Party on Animal Health, whose chairman was a member of the FAO staff. In addition to issuing valuable publications and producing films on some of the diseases of economic importance in Europe, it arranged meetings of veterinary representatives from European countries when the problems of animal health were discussed. FAO participated fully in these meetings. Although the Working Party on Animal Health has been disbanded, the OEEC is still much interested in veterinary activities and, undoubtedly, would again give serious consideration to calling together representatives of European countries to discuss any vital problems of animal disease which might arise.

Then, there is the International Veterinary Congresses with headquarters in Utrecht, Holland. It has world-wide country membership and a meeting is held once every four years when delegations from many countries meet and many important papers are presented and discussions on them take place. This body is supported financially by small contributions from veterinarians in the member countries. FAO is represented on the governing body and a member of the FAO veterinary staff is a member of some of the Committees.

FAO also collaborates wherever and whenever possible with organizations in the United States of America which are carrying out much good work on veterinary matters in many of the less-developed countries throughout the world: and with the Organismo Internacional Regional de Sanidad Agropecuaria (OIRSA) which works in Central America, to whose headquarters a veterinarian, appointed by FAO, is attached.

Although FAO is not empowered, generally, to engage in research, the need for such work is fully appreciated and encouragement is given whenever possible. There are a few special fellowships, recently provided, for award, under certain conditions, for research purposes: some have already been awarded to veterinarians who are working abroad.

To complete this article a few examples of the field work of FAO veterinarians may be of interest.

Rinderpest or cattle plague is one of the diseases of cattle and buffalo most dreaded in parts of Africa and the Far East. In some countries, it is always present although in a "silent" or somewhat quiescent state: on occasion, however, the infecting virus attains a high degree of virulence and the disease sweeps over districts and countries, sometimes invading several countries and causing a high death rate. In some parts of the world the disease is the cause of severe economic loss not only in animal production but also in general agriculture because at critical times there may remain no or only a few cattle or buffaloes for use in agricultural activities. From the results of research work, vaccines, the systematic use of which will prevent spread of the infection, are available. FAO veterinarians have worked in some of the infected countries, teaching the national personnel how to prepare the vaccines and advising on extensive schemes for the control of the disease; training centres have been held where the preparation of the vaccines and their testing for efficiency have been demonstrated to groups of future workers; equipment for the preparation of the vaccines has been supplied; fellowships have been awarded to enable national personnel to receive instruction in the working and maintenance of the equipment. All this assistance has led to the application of control measures which are resulting in lowering the incidence of rinderpest and has already been responsible for the clearing of some large areas. With a continuation of concentrated effort by the countries concerned and full collaboration between infected countries in a region, the progress should continue until rinderpest is no longer a menace to livestock production and to the economy of countries.

FAO takes much interest in veterinary education, realizing fully that sound veterinary education is an essential requirement for an efficient veterinary service. FAO veterinarians have visited many countries for information on veterinary schools and educational systems: regional meetings have been held when the only subject of discussion has been veterinary education to meet the requirements of the region: an FAO veterinarian spent some considerable time in Calcutta, India, and following his advice many alterations were made in the veterinary college there and in teaching veterinary students: FAO has now arranged a world-wide meeting on veterinary education to be held in London in April, 1960, when it is hoped to discuss the subject in general terms and to make recommendations.

Foot-and-mouth disease continues to influence animal production in some parts of the world and to impede export and import of livestock and products of animal origin. Countries, free from the

disease, impose severe restrictions which prevent or minimise the risks of introducing the infection. FAO is much concerned with the general position ; FAO veterinarians advise countries on methods of control and eradication and on legislative measures to protect countries against invasion ; world-wide meetings have been held for discussions on the conditions which might be imposed for safeguarding countries against the introduction of the disease ; the European Commission for the Control of Foot-and-Mouth Disease was set up, at the request of governments, as a unit of FAO with its own budget and is engaged in assisting European member countries in the application of measures to eradicate the disease from the country and from the whole of Europe ; FAO keeps in close touch with research workers on all aspects of the disease and makes recent information available.

Haemorrhagic septicaemia in cattle and buffaloes causes much economic loss, especially in eastern parts of the world. Having learned of some important work on the causal organism which might lead to the development of better vaccines for the control of the disease, FAO appointed a veterinarian, familiar with this work, to make further observations on the subject and to prepare and test out the value of the vaccines under consideration. All the field work was carried out in the Far East and vaccines are still being tested on an extensive scale ; the available information indicates that this newer type of vaccine is an improvement on those formerly used.

Contagious bovine pleuropneumonia is an important disease of cattle in parts of Africa, India, Australia and some few areas in Europe. Research is being pursued in different countries on improvements in the vaccines now in use for its control. FAO convened a meeting of the veterinarians interested in this subject and formed a panel composed of research workers who will meet from time to time when they will compare and discuss the results of their work and provide up-to-date information for distribution.

Brucellosis in goats and sheep continues to cause much economic loss and much human disease in some parts of the world. FAO, with the collaboration of WHO, provided some assistance for the study of suitable vaccines for the protection of goats and sheep and consequent reduction in the risk of human infections. This assistance was continued for several years and has been of much value in the development of at least two types of vaccines, both of which have given promising results in small observations and will now be tested in the field on a large scale.

INTERNATIONAL VETERINARY ACTIVITIES

The serious effects of parasitic infestations of animals on animal production are well recognized, not only because of the death rate but also because of the losses from interrupted and slow development. Different types of parasites assume higher importance in different areas. Important diseases are caused by the protozoan group of parasites which are "tick-borne". Realizing their importance, FAO convened a meeting attended by observers from many countries and an up-to-date report was produced for distribution. Because of the complexity and extent of the subject and the amount of research and investigation work in progress, FAO has set up a panel of workers on the subject: one meeting has been held and a report from it is available. Other types of parasites have not been forgotten and FAO veterinarians have investigated and given advice on the control of parasites causing such diseases as liver fluke disease, parasitic gastro-enteritis and others in several widely separated parts of the world. In some South American countries, theoretical and practical instruction has been given on several occasions to groups of veterinarians and others.

The introduction of artificial insemination as a method of breeding has attracted the attention of those interested in livestock improvement in practically all countries and there has been much demand for technical assistance from FAO for instruction of the method. FAO veterinarians have spent long periods in some countries demonstrating techniques and advising on and assisting in the introduction of schemes; veterinary personnel have been sent abroad to study methods in other countries. Sexual hygiene and infertility control have always been taught and dealt with side-by-side with artificial insemination and three training centres have been held in Sweden, each of some ten months' duration, when very thorough training in all these subjects has been given to groups of selected veterinarians, mostly from Near East and Far East countries. FAO also organized a meeting at which recommendations were made on the conditions for the export and import of semen.

These are examples of some of the work carried out by FAO on more specific subjects of animal health and disease control. In addition, much work of a more general nature is undertaken under the technical assistance programmes when surveys of disease are made and advice given on the more general aspects of disease control and the improvements of animal husbandry and nutrition, including necessary changes, all with the object of improving and increasing livestock production.