

Food & Agriculture Organization Work in Animal Production

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The activities of the Animal Production and Health Division of FAO should be considered in the light of the objectives and programmes of this international organization. Therefore, it seems useful to highlight briefly the history and the functions of FAO.

The idea of a permanent organization dedicated to world food and agriculture was born in 1943 at the "First Conference on Food and Agriculture" held at Hot Springs, Virginia, USA. As a result of the recommendations of this conference, the Food and Agriculture Organization (FAO) of the United Nations was formally created on October 16, 1945 at Quebec, Canada, and its constitution was signed by the 34 first member governments of the organization; today there are 136 member countries.

The functions of FAE, set up in Article 1 of its constitution, include the following: (1) to collect, analyze, interpret and disseminate information with relation to nutrition, food and agriculture; (2) to promote and, where appropriate, to recommend national and international action with respect to scientific research, improvement of education, public knowledge of nutritional and agricultural science, conservation of national resources, adoption of improved methods of agricultural production, improvement of processing, marketing and distribution of food and agricultural products, adoption of policies for the provision of national and international agricultural credits, and adoption of international policies with respect to agricultural commodity arrangements; (3) to furnish technical assistance to governments when so requested.

FAO's major responsibilities are divided between the *regular programme* and the *field programme*. The regular programme is financed directly from annual payments from FAO member nations and its main activities include (1) obtaining facts and figures on world agriculture, (2) exchanging information and ideas through meetings and panels, (3) provision of administrative and management assistance to field programmes and (4) advisory services through technical specialists in headquarters and outposted regional officers. Through this programme, FAO also promotes meetings which bring together representatives from governments and scientific bodies to study agricultural problems of common interest and to plan action programmes.

Within the framework of its regular programme, the Animal Production and Health Division of FAO has convened international meetings and panels on a variety of topics such as beef production, dairy production, pig production, livestock infertility, milk quality, conservation of animal germ plasm, utilization of sheep and goat milk, dairying in arid countries, trypanosomiasis, veterinary education, animal husbandry education, foot and mouth disease, tick-borne diseases, animal nutrition, utilization of by-products, Mediterranean livestock, etc. The division has had several standing expert panels and study groups dealing with topics such as animal breeding and climatology, control of tse-tse fly and animal trypanosomiasis, control of ticks and tick-borne diseases, animal nutrition and animal husbandry education, expert consultation on animal production and health research, new feed resources, and animal genetic resources. Those meetings are generally held in Rome and after the presentation of working papers and discussions among experts from various parts of the world, recommendations for action are given to FAO and member governments; it must be emphasized however, that these recommendations have no executive power.

Through the regular programme, the Animal Production and Health Division of FAO has issued a number of technical publications. Books published include "Breeding Livestock Adapted to Unfavourable Environments," "Poultry Feeding in Tropical and Sub-Tropical Countries," "Nutritional Deficiencies in Livestock," "The Husbandry and Health of the Domestic Buffalo," "Standardized Pilot Milk Plants," "Tropical Feeds," and several more booklets. The division also develops a library of films on various aspects of livestock production which is at the disposal of field experts and member countries. The *World Animal Review* published by the division is an important medium for exchanging experience between developed and developing countries. Training programmes and demonstration courses are also part of the division's regular programme. Training centres have been operated on topics such as dairy training, abattoir management and operation, while demonstration courses for animal health assistants have been given in Africa, Latin America and the Near East. Another active function of the division within the framework of the

regular programme is the provision of headquarter personnel to the countries for short missions involving advisory activities, assistance in planning programmes and preparation of specific project requests.

Apart from its regular programmes, FAO has devoted great efforts to its *field programme*. This programme was initially supported by the United Nation's expanded programme of technical assistance (EPTA) created in 1950 and the United Nation's special fund (UNSF) created in 1959. These two international programmes of technical assistance were combined on 22 November 1965 by the United Nations General Assembly into the United Nations development programme (UNDP). The UNDP is financed by governments on an annual basis with voluntary contributions; these contributions are generally in unrestricted currencies but in some cases they can be spent only for goods or services in stipulated markets. The recipient country contributes to projects in cash and kind to an average of approximately 50% of the overall costs.

The policy of UNDP is the responsibility of a 37-member governing council composed of both developed and developing nations and which allocates funds and oversees programmes. The implementation of these programmes is assigned to executing agencies including international organizations such as FAO, WHO, ILO, UNESCO, WMO and others. The executing agency of a project is responsible for providing the government concerned with services, equipment, supplies, training and supervision according to the terms of reference and plan of operation agreed upon with the requesting government.

The technical assistance component of the UNDP aims at helping directly less developed countries to achieve economic, social and cultural progress. Assistance is generally in the form of international experts services and limited amounts of equipment and supplies; under these programmes, fellowships for study abroad are generally granted to national counterparts of the projects and in service training, training centres and group study tours are often important components of the plan of operation. The special fund component of the UNDP aims at raising the productivity capacity of developing nations by demonstrating investment feasibility and by creating conditions to make investment a reality. In recent years, the tendency has been towards adapting projects to the rapidly changing needs of the countries as will be explained further in this paper. Hence, the types of projects and the activities of the specialists contracted for their execution vary largely and according to the individual needs of each country and project; research oriented towards the short-term solution of problems, training at various levels according to local development requirements, assistance in programming realistic livestock development programmes, strengthening livestock planning in-

stitutions, improving the marketing and processing of animal products, implementing livestock development activities at local or regional level, developing extension services deserving cooperatives and small farmers are some of the facets of the field programmes of the Animal Production and Health Division of FAO. Unfortunately, due to a financial crisis of UNDP, FAO's field activities financed through this programme have drastically been reduced in 1976 and 1977.

FAO and its Animal Production and Health Division are also involved in *cooperative programmes* with international bodies or with bilateral aid organizations (DANIDA from Denmark; SIDA from Sweden, Finnish aid, etc.). International cooperating bodies are the Freedom from Hunger Campaign (FFHC), the World Food Programmes (WFP), the United Nations Children Fund (UNICEF), and the World Bank (through the FAO/World Bank Cooperative programme). There exists also an industry cooperative programme established in 1966 with representatives from industry with a view of stimulating economic growth through the implementation of industry-oriented development projects. Also to be mentioned is the FAO survey of the world food situation in relation to population and overall development together with a plan for action: this is the indicative world plan (1975-1985) which was requested to FAO by the World Food Congress held in 1963 in Washington, D.C., USA.

Apart from all these on-going activities, it must be stressed that in recent years FAO has reorganized its structure with a view to adapt its activities to the rapidly changing needs of the developing countries. The Animal Production and Health Division has been particularly active in this respect and has organized its structure to cope with the requirements of new programmes and activities which it has initiated.

At present the division is composed of an administrative unit, a livestock policy and planning unit and three technical services; each unit and each service is directly responsible to the office of the director of the division. The technical set-up includes: (a) the animal health service which has a field programme support group, (b) the livestock research and education service and (c) the meat and milk development service which is divided into three groups, namely, the milk development group, the meat development group and the field programme support group. In this way, the division is well structured to comply with its priority responsibilities, namely (a) livestock research and education, (b) animal health, (c) meat and milk development, (d) field programme support. As a complement to these technical activities, the *livestock policy and planning unit* was created in 1972 with a view to strengthen cooperation with other divisions and to ensure in this way well-integrated country perspective studies. Livestock research and education activities have been

decisively directed towards fulfilling functions of major importance for developing countries at this stage. Research liaison has been strengthened to ensure closer working relationships with universities and research institutes in more developed countries. In October 1971 a meeting was held with directors of selected universities and research institutes to explore ways to promote collaborative research for the benefit of both developing and developed countries. At present, the division collaborates with universities and research institutes in Canada, Czechoslovakia, Denmark, France, Germany, Italy, Poland, the United Kingdom and the United States of America. Collaboration is progressively being strengthened with the more advanced institutions in selected developing countries with the International Laboratory for Research in Animal Diseases (ILRAD) in Nairobi, Kenya, and the International Livestock Centre for Africa (ILCA) based in Ethiopia. Genetic improvement is another research topic for which the division has organized various meetings since 1966. An animal genetic resources information centre for the storage of data on local and imported breeds in developing countries has been initiated. In cooperation with the United Nations environment programme (UNEP), declining breeds throughout the world are being surveyed. A cooperative effort has been started to compare ten strains of Friesian cattle by using their semen on cows of the Polish strain of this breed in state farms in Poland; a similar project is underway to compare the red and red-and-white dairy breeds of northern Europe on state farms in Bulgaria. An international bull semen donation scheme (IBSDS) has been established for the transfer of genetic material from improved cattle breeds.

Increasing attention has been given to animal nutrition and feed resources in order to make better use of food resources including agricultural by-products in developing countries. *Ad hoc* consultations on new feed resources have been organized and close contacts are established with research institutes in this connection. The division also collaborates closely with a number of foods information centres and animal nutrition institutes through an "international network of feeds information centers" (INFIC).

Training at various levels has remained an important objective of the division. At post-graduate level, this is generally achieved through a wide-ranging fellowship programme mainly financed by UNDP to cover most urgent needs in developing countries; specialized post-graduate courses have also been made possible by grants from Denmark and Sweden. At intermediate level, the most intensive educational activity has been in dairying thanks to aid received from Denmark; this has been a three-step training programme involving national, regional and international courses on the technical aspects of milk production and processing. Inter-regional training in meat hygiene and abattoir development and national

courses in meat production have also been organized.

The animal health activities cover a series of strategic programmes which are of paramount importance for the control of diseases of economic importance in both developing and developed countries. Disease intelligence is a continuing activity of the division which publishes in the FAO/WHO/OIE Animal Health Yearbook the information on the occurrence and control of animal diseases throughout the world. In connection with the control of specific diseases, the division participates in or promotes programmes such as the European commission for the control of foot-and-mouth disease, disease-free zones and meat hygiene, rinderpest and contagious bovine pleuropneumonia, trypanosomiasis and tick-borne disease, international standardization of biological products, establishment of diagnostic research and vaccine production laboratories. The control of trypanosomiasis and tick-borne disease are among the priority programmes of the division.

The division's activities in livestock development are now commodity-oriented and the *meat and milk development* are the main objectives. The meat and milk development service has acquired two new and powerful tools for assisting governments—the international scheme for the coordination of dairy development (ISCDD) and the international meat development (IMDS). Both schemes involving several disciplines are coordinated at the inter-divisional level.

The ISCDD was established to palliate the lack of integrated efforts to develop the under-utilized potential for milk production in most developing countries. The scheme aims at accelerating milk production where suitable conditions exist through multi-lateral and bilateral means. Upon the request of a government, the division sends a mission to assist in drawing up an integrated programme of action with identified projects to promote dairy development including milk production, milk plant construction and management, milk processing and dairy technology, etc.; once the government has agreed on the proposed programme FAO prospects the interest of donor countries to implement projects and programmes. This approach has the advantage of being broad, flexible, adapted to actual needs and therefore action-oriented. The scheme has received much support from WFP which has implemented several of the ISCDD identified projects; 63 countries, of which 45 are developing countries seeking assistance, and 12 international bodies participate in the scheme.

The IMDS aims at promoting, through integrated technical assistance, aid and investment programmes, to develop the meat sector in developing countries. The scheme integrates all meat development activities including meat production, meat processing and technology, abattoir manage-

ment, etc. It helps identifying medium-term priorities for financing by both bilateral and multinational agencies. IMDS operates in a very similar way as ISRDD and various developing countries have requested combined ISRDD-IMDS operation.

Finally, an essential activity of the division is the support to field programme for which a special team has been set up. This team provides technical backstopping to FAO's field activities in livestock development, and feeds back to the division technical data coming from the field, thus keeping it informed of the actual constraints to livestock development; this allows adjusting the division's activities to the needs in developing countries.

It is also necessary to mention that the division is playing an important role in the FAO technical cooperation programme (TCP) established in 1976 by the director general. This programme is part of the regular programme but provides a new tool which was much needed to complement FAO's traditional development activities. The TCP has its own budget for implementing projects which allows FAO to initiate on short notice action programmes requested by the developing countries; these are small-scale projects of a short duration (less than one year) to respond to urgent requirements of the countries in raising food production. The grants are concentrating on emergency cases following the outbreaks of pests, diseases and disaster, the preparation and follow-up of investment projects, training (mainly at the grass-root level) and other unforeseen requirements. In less than one year over twelve projects involving livestock production have been initiated by the FAO/TCP.

In conclusion, it must be stressed that according to the terms of its constitution, FAO can only assist countries by providing the assistance which they do request to palliate their lack of technical know-how and to faster activities which will attract national, bilateral and international investments in the field of agriculture. The responsibility and the main initiative for social and economic developments lies with the governments themselves. On this basis, FAO has acquired over the years a valuable experience and has developed efficient tools, the most recent of which is the TCP which apparently is to meet success. Parallely the Animal Production and Health Division has become a particularly well adapted action-oriented team which has proved efficient in meeting the livestock requirements of developing countries.

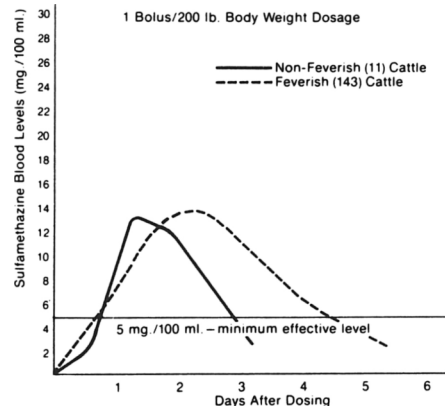
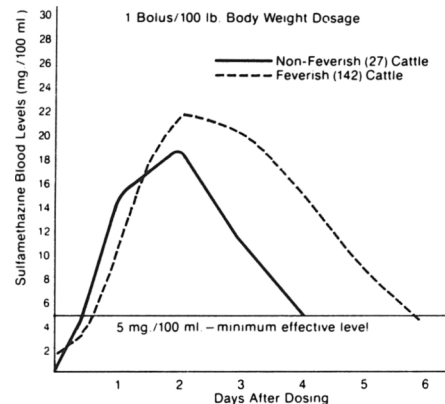
Bibliography

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Hava-Span™ (Sulfamethazine)

CONTENTS: Each bolus contains 22.5 grams of sulfamethazine in a prolonged release base.

INDICATIONS: HAVA-SPAN™ (Sulfamethazine) Prolonged Release Bolus is indicated for the sustained treatment of shipping fever pneumonia caused or complicated by *Pasteurella multocida* in beef and nonlactating dairy cattle. It is also indicated as an aid in the treatment of foot rot, mastitis, pneumonia, metritis, bacterial enteritis, calf diphtheria and septicemia in beef and nonlactating dairy cattle when caused or complicated by bacteria susceptible to sulfamethazine.



DOSAGE: Cattle which are acutely ill should be treated parenterally with a suitable parenteral antibacterial product to obtain immediate therapeutic blood levels. HAVA-SPAN™ (Sulfamethazine) Prolonged Release Boluses, provide effective blood levels starting about 14 to 18 hours following administration. The duration of therapeutic levels (5 mg./100 ml. or greater) in acutely ill animals is related to the dosage of HAVA-SPAN™ (Sulfamethazine) Prolonged Release Bolus administered.

Depending on the duration of therapeutic blood levels desired, administer HAVA-SPAN™ (Sulfamethazine) Prolonged Release Bolus as follows:

HAVA-SPAN Dosage	Duration of Therapeutic Blood Levels* (5 mg./100 ml. or greater)
1 bolus/200 lb. body wt.	3½ days
1 bolus/100 lb. body wt.	5 days

*Duration of blood levels are based on studies on acutely ill animals with elevated body temperatures. Therapeutic blood levels following treatment with HAVA-SPAN™ (Sulfamethazine) Prolonged Release Bolus rise quicker and are of a shorter duration in non-feverish animals.

CONTRAINDICATIONS: HAVA-SPAN™ (Sulfamethazine) Prolonged Release Bolus should not be administered to cattle with a known sensitivity to sulfonamides or with known renal impairment, or cattle too small to swallow boluses (usually less than 200 lb. body weight).

WARNING: Do not use in lactating dairy cattle. Do not administer within 16 days of slaughter.

PRECAUTIONS: Do not limit drinking water to cattle being medicated. Estimate body weights carefully to assure accurate dosing.

ADVERSE REACTIONS: While sulfonamides may infrequently cause allergic or toxic reactions, none of these symptoms have been recorded during pre-clinical or clinical studies involving Hava-Span™ (Sulfamethazine) bolus. SUPPLIED: Cartons of 10 x 5 bolus packets, Boxes of 50.

CAUTION: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

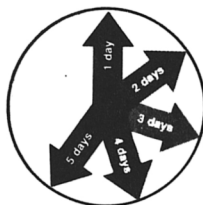
NOTE: Product usage information contained herein is abbreviated. Consult product insert before treatment.



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