

codex alimentarius commission



FOOD AND AGRICULTURE
ORGANIZATION
OF THE UNITED NATIONS

WORLD
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JOINT OFFICE: Viale delle Terme di Caracalla 00100 ROME Tel: 39 06 57051 www.codexalimentarius.net Email: codex@fao.org Facsimile: 39 06 5705 4593

Agenda Item 3

CX/AF 03/5
November 2002

JOINT FAO/WHO FOOD STANDARDS PROGRAMME
AD-HOC INTERGOVERNMENTAL CODEX TASK FORCE ON ANIMAL FEEDING
Fourth Session
Copenhagen, Denmark, 25 - 28 March 2003

PROPOSED DRAFT CODE OF PRACTICE ON GOOD ANIMAL FEEDING

REPORT OF THE DRAFTING GROUP ON REVISION OF SECTION 6-7 AND REORGANIZATION OF SECTION 5

Governments and international organizations wishing to submit comments on the following subject matter are invited to do so in writing **no later than 14 February 2003** to: Mr. Mogens Nagel Larsen, Director, Danish Plant Directorate, Skovbrynet 20, DK 2800 Lyngby, Denmark (Fax No: +45 45263610; e-mail: taskforce@pdir.dk), with a copy to the Secretary, Codex Alimentarius Commission, Joint FAO/WHO Food Standards Programme, FAO, Viale delle Terme di Caracalla, 00100 Rome, Italy (Telefax: +39 065705 4593; E-mail: Codex@fao.org).

BACKGROUND

The third Session of the *Ad-hoc* Intergovernmental Codex Task Force on Animal Feeding agreed that a Drafting Group, led by Canada with the assistance of Australia, Norway, United Kingdom, ALA (Asociación Latinoamericana de Avicultura) and Consumers International, reorganise Section 5 and revise Sections 6 and 7 of the draft Code (Appendix II) taking into account the discussion at its 3rd Session¹ and the written comments submitted² for distribution prior to its next session. The Task Force expressed its willingness to give priority to the detailed revision of Section 6-7, prior to consider the draft Code in its entirety (ALINORM 03/38, paras. 70-74).

¹ ALINORM 03/38, paras. 30-69

² CX/AF 03/4

PROPOSED DRAFT CODE OF PRACTICE ON GOOD ANIMAL FEEDING

SECTION 5. PRODUCTION, PROCESSING, STORAGE, TRANSPORT AND DISTRIBUTION OF FEEDS AND FEED INGREDIENTS

27. The production, processing, storage, transport and distribution of safe and suitable feeds and feed ingredients is the responsibility of all participants in the feed chain, including farmers, feed ingredient manufacturers, feed compounders, truckers, etc. Each participant in the feed chain is responsible for all activities which are under their direct control including compliance with any applicable statutory requirements.

28. Feeds and feed ingredients should not be produced, processed, stored, transported or distributed in facilities or using equipment where incompatible operations may affect their safety and lead to adverse effects on the health of the consumers. Due to the unique characteristics of aquaculture, the application of these general principles must consider the differences between aquaculture and terrestrial-based production.

29. Where appropriate, operators should follow GMPs and/or HACCP principles to control hazards that may occur in food. The aim is to prevent contamination of animal feed and food of animal origin as far as this is reasonably achievable, recognising that total elimination of hazards is often not possible.

30. The effective implementation of GMPs and/or HACCP-based approaches should ensure, in particular, that the following areas are addressed.

5.1 PREMISES

31. Buildings and equipment used to process feed and feed ingredients should be constructed in a manner that permits ease of operation, maintenance and cleaning and minimises feed contamination. Process flow within the manufacturing facility should also be designed to minimise feed contamination.

32. Water used in feed manufacture should meet hygienic standards and be of suitable quality for animals. Conduits for water should be constructed from materials appropriate for their intended use.

33. Sewage, waste and rain water should be disposed of in a manner which avoids contamination of facilities, equipment, feed and feed ingredients.

5.2 RECEIVING, STORAGE AND TRANSPORTATION

34. Chemical fertilizers, pesticides and other materials not intended for use in feed should be stored separately from feeds and feed ingredients to avoid the potential for manufacturing errors and contamination of feeds and feed ingredients.

35. Processed feeds should be stored separately from unprocessed feed ingredients and appropriate packaging materials should be used.

36. The presence of undesirable substances in feeds and feed ingredients should be monitored and controlled.

37. Feeds and feed ingredients should be delivered and used as soon as possible. All feeds and feed ingredients should be stored and transported in a manner which minimises deterioration and contamination and enables the correct feed to be sent to the right animal group.

38. Care should be taken to minimise deterioration and spoilage at all stages of handling, storage and transport of feeds. Special precautions should be taken to limit fungal and bacterial growth in moist and semi-moist feeds for aquaculture. Condensation should be minimised in feed and feed ingredient manufacturing and processing facilities. Dry feeds and feed ingredients should be kept dry in order to limit fungal and bacterial growth.

39. Waste feed and other material containing undesirable substances or any other hazards should not be used as feed, but, should be disposed of in an appropriate manner including compliance with any applicable statutory requirements.

40. By-products from wild fish and aquaculture should only be used in aquaculture feed when regarded as safe by national experts based on facts given by competent authorities on the animal health status in the country.

5.3 PERSONNEL TRAINING

41. All personnel involved in the manufacture of feed and feed ingredients should be adequately trained and aware of their role and responsibility in protecting feed and feed ingredients from contamination.

5.4 SANITATION AND PEST CONTROL

42. Feed processing plants, storage facilities and their immediate surroundings should be kept clean and effective pest control programs should be implemented.

43. Containers and equipment used for manufacturing, processing, transport, storage, conveying, handling and weighing should be kept clean. Cleaning programs should be effective and minimise residues of detergents and disinfectants.

44. Machinery coming into contact with dry feed should be dried following any wet cleaning process.

45. Special precautions should be taken when cleaning machinery used for moist and semi-moist feed to avoid fungal and bacterial growth.

5.5 EQUIPMENT PERFORMANCE AND MAINTENANCE

46. All scales and metering devices used in the manufacture of feeds and feed ingredients should be appropriate for the range of weights and volumes to be measured, and be tested regularly for accuracy.

47. All mixers used in the manufacture of feeds and feeds ingredients should be appropriate for the range of weights or volumes being mixed and be capable of manufacturing suitable homogeneous mixtures and homogeneous dilutions, and be tested regularly to verify their performance.

48. All other equipment used in the manufacture of feeds and feeds ingredients should be appropriate for the range of weights or volumes being processed, and be tested regularly to verify their performance.

5.6 MANUFACTURING CONTROLS

49. Manufacturing procedures should be used to avoid cross-contamination (for example flushing, sequencing and physical clean-out) between batches of feed containing restricted or otherwise potentially harmful materials (such as certain animal by-product meals, veterinary drugs). These procedures should also be used to minimise cross-contamination between medicated and non-medicated feeds and other incompatible feeds. In cases where the food safety risk associated with cross-contamination is high and the use of proper flushing and cleaning methods is deemed insufficient, consideration should be given to the use of completely separate production lines, transfer, storage and delivery equipment.

50. Pathogen control procedures, such as heat treatment or the addition of authorised chemicals, should be used where appropriate, and monitored at the applicable steps in the manufacturing process.

5.7 RECALLS

51. Records and other information should be maintained as indicated at 4.3 of this Code to include the identity and distribution of feeds and feed ingredients so that any feed or feed ingredient considered to pose a threat to consumer health can be rapidly removed from the market and that animals exposed to the relevant feed can be identified.

SECTION 6. ON-FARM PRODUCTION AND USE OF FEED AND FEED INGREDIENTS

52. This section provides guidance on the cultivation, manufacture, management and use of feeds on farms and in aquaculture.

53. This section should be used in conjunction with the applicable requirements of Section 4 and 5 of this Code.

54. To help ensure the safety of foods used for human consumption, Good Agricultural Practices (GAP) principles should be applied during all stages of on-farm production of pastures, cereal grain and forage crops used as feeds or feed ingredients for food producing animals. Two types of contamination represent hazards at most stages of on-farm production of feeds, namely :

- Biological, such as bacteria, fungi and other microbial pathogens; and
- Chemical, such as residues of medication, pesticides, fertilizer or other agricultural substances.

6.1 AGRICULTURAL PRODUCTION OF FEED

55. Adherence to GAPs is encouraged in the production of natural, improved and cultivated pastures, forage and cereal grain crops used as feed or feed ingredients for food producing animals. Following good agriculture practice standards will minimise the risk of biological and chemical contaminants entering the food-chain. If crop residuals and stubbles are grazed after harvest, or otherwise enter the food-chain, they should also be considered as livestock feed. Most livestock will consume a portion of their bedding. Crops that produce bedding material or bedding materials such as straw or wood shavings, should also be managed as animal feed ingredients. Good pasture management practices, such as rotational grazing and dispersion of manure droppings, should be used to reduce cross-contamination between groups of animals.

6.1.1 Site selection

56. Land used for production of animal feeds should not be located in close proximity to industrial operations where industrial pollutants from air, ground water or runoff from adjacent land would be expected to result in the production of foods of animal origin that may present a food safety risk. Runoff from adjacent land and irrigation water should be free of any contaminants that may present a food safety risk.

6.1.2 Manure fertilizer

57. Where manure fertilisation of crops on pastures is practised, an appropriate handling and storage system should be in place and maintained to minimise environmental contamination, which could negatively impact on the safety of foods of animal origin. There should be adequate time between applying the manure and grazing, to allow the manure to decompose and to minimize contamination.

58. Manure, compost and other plant nutrients should be properly used and, applied to minimise biological and chemical contamination of foods of animal origin which could adversely affect food safety.

6.1.3 Chemical fertilizers

59. Chemical fertilizers should be handled, stored and applied so that they do not negatively impact on the safety of foods of animal origin, e.g., cadmium content should be monitored.

6.1.4 Pesticides

60. Where possible, pesticides should be obtained from reputable suppliers. Where a regulatory system is in place, any chemical used must comply with the requirements of that system.

61. Agricultural chemicals should be stored and used in accordance with Good Agricultural Practice for Use of Pesticides (GAP) as outlined on page 42 of the 12th edition of the Codex Alimentarius Commission's Procedural Manual. It is important that farmers carefully follow the manufacturers' instructions for use.

62. Chemicals should be disposed of responsibly in a manner that will not lead to contamination of any body of water, soil, feed or feed ingredient that may lead to the contamination of foods of animal origin which could adversely affect food safety.

6.2 MANUFACTURING OF FEED ON-FARM

6.2.1 *Feed ingredients*

63. On-farm feed manufacturers should follow the applicable guidelines established in subsection 4.1 of this code when sourcing feed ingredients off the farm.

64. Feed ingredients produced on the farm should meet the requirements established for feeds sourced off the farm. For example, seed treated for planting should not be fed.

6.2.2 *Mixing*

65. On-farm feed manufacturers should follow the applicable guidelines established in section 5 of this code. Particular attention should be given to subsection 5.6.1 of this code.

66. In particular, feed should be mixed in a manner that will minimise the potential for cross-contamination between feeds or feed ingredients that may have an effect on the safety, or withholding period for the feed or feed ingredients. Manufacturing procedures should be used to avoid cross-contamination (for example flushing, sequencing and physical clean-out) between batches of feed containing restricted or otherwise potentially harmful materials (such as certain animal by-product meals, veterinary drugs). These procedures should also be used to minimise cross-contamination between medicated and non-medicated feeds and other incompatible feeds.

6.2.3 *Monitoring records*

67. Appropriate records of feed manufacturing procedures followed by on-farm feed manufacturers should be maintained to assist in the investigations of possible feed related contamination or disease events.

68. Records should be kept of incoming feed ingredients, date of receipt and batches of feed produced in addition to other applicable records set out in subsection 4.3.

6.3 GOOD ANIMAL FEEDING PRACTICE

69. Good animal feeding practices include those practices which help ensure the proper use of feeds and feed ingredients on-farm while minimising biological and chemical risks to consumers of foods of animal origin.

6.3.1 *Water*

70. Water for drinking or for aquaculture should be of appropriate quality for the animals or fish being produced. Where there is reason to be concerned about contamination of livestock or fish from the water, measures should be taken to evaluate and minimise the hazards.

6.3.2 *Pasture grazing*

71. The grazing of pastures and, crop lands should be managed in a way that minimises the contamination of foods of animal origin by biological and chemical food safety hazards.

72. Where appropriate, an adequate period should be observed before allowing livestock to graze on pasture, crops and crop residuals and between grazing rotations to minimise biological cross-contamination from manure.

73. Where agricultural chemicals are used, operators should ensure that the required withholding periods are observed.

6.3.3 Feeding

74. It is important that the correct feed is fed to the right animal group and that directions for use are followed. Contamination should be minimised during feeding.

75. Animals receiving medicated feeds should be identified or managed separately until the correct withholding period (if any) has been reached and records of these procedures must be maintained. Procedures to ensure that medicated feeds are transported to the correct location and are fed to animals that require the medication should be followed. Feed transport vehicles and feeding equipment used to deliver and distribute medicated feed should be cleaned after use, if a different medicated feed or non-medicated feed or feed ingredient is to be transported next.

6.4 STABLE FEEDING AND LOT/INTENSIVE FEEDING UNITS

76. The animal production unit should be located in an area that does not result in the production of foods of animal origin that pose a risk to food safety. Care should be taken to avoid animal access to contaminated land, and to facilities with lead-based paint and other potential sources of toxicity.

6.4.1 Hygiene

77. The animal production unit should be designed so that it can be adequately cleaned. The animal production unit and feeding equipment should be thoroughly cleaned regularly to prevent potential hazards to food safety. Chemicals used should be appropriate for cleaning and sanitising feed manufacturing equipment and should be used according to instructions. These products should be properly labelled and stored away from feed manufacturing and feeding areas.

78. A pest control system should be put in place to control the access of pests to the animal production unit to minimise potential hazards to food safety from feed and bedding materials or culture units.

79. Operators and employees working in the animal production unit should observe appropriate hygiene standards to minimise potential hazards to food safety from feed.

6.5 ON FARM PRODUCTION AND USE OF FEED IN AQUACULTURE

80. Aquaculture includes a wide range of species of finfish, molluscs, crustaceans, cephalopods etc. The complexity of aquaculture is reflected in the wide range of culturing methods ranging from huge cages in open seas to culturing in small freshwater ponds. The diversity is further reflected by the range of stages from larvae to full grown size, requiring different feeds as well as different culture methods. Nutritional approaches range from feeding only naturally occurring nutrients in the water to the use of sophisticated equipment and scientifically formulated compound feeds.

81. To ensure food safety, necessary precautions should be taken regarding culturing methods, culturing sites, technologies, materials and feed used to minimize risk of contamination. Special attention should be paid to the water quality for culturing sites and water used in the production of feed on farms.

82. A Code of Practice for Fish and Fishery Products is currently being developed by the Codex Committee on Fish Production. Aquaculture producers should refer to relevant sections of that Code for additional information.

SECTION 7 METHODS OF ANALYSIS AND SAMPLING

7.1. SAMPLING

83. It is important to ensure that the sample taken is representative of the consignment or of the lot. All sampling should be performed using defined sampling procedures based on Codex sampling plans for the particular commodity/contaminant combination where available. Otherwise relevant official methods of sampling as elaborated by international organisations, such as the International Standards Organisation (ISO)

and AOAC International, should be used. Where no appropriate international standard exists, sampling methods should be developed and validated using scientifically recognized principles and procedures.

7.2 ANALYSIS

84. Where samples are selected for analysis, validated methods of analysis based on Codex principles and elaborated by competent authorities should be used. Where such methods are unavailable, methods of analysis elaborated by international organisations such as ISO, AOAC International and the European Committee for Standardisation (CEN), should be used. Where no appropriate international analytical standard exists, laboratory methods should be developed and validated using scientifically recognized principles and procedures. When selecting methods, consideration should also be given to practicability, with preference given to those methods which are reliable and applicable for routine use. Laboratories conducting routine analyses of feeds and feed ingredients should ensure their analytical competency with each method used and maintain appropriate documentation.