

C O D E X A L I M E N T A R I U S C O M M I S S I O N



Food and Agriculture
Organization of
the United Nations



World Health
Organization

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Agenda Item 5

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JOINT FAO/WHO FOOD STANDARDS PROGRAMME

AD-HOC INTERGOVERNMENTAL CODEX TASK FORCE ON ANIMAL FEEDING

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PROPOSED DRAFT PRIORITISED LIST OF HAZARDS IN FEED

(Revised version)

Comments at Step 3 of:

Australia, European Union, Kenya, Mali, Philippines, Thailand

AUSTRALIA

General comments

Australia sees the document as providing guidance on the prioritisation of hazards in feed rather than a prioritised list of hazards. We agree with the general purpose and content of the document as currently written and suggest the title be revised to reflect the content of the document. Here we support a proposal by NZ to amend the title to read

“Proposed draft guidance for identification and prioritisation of hazards in feed.”

Additionally, we believe the section on Potential Feed Hazards is too detailed and should be shortened.

Specific comments:

Section: Definitions

Paragraph 9.

Feed definition. Suggest deletion of the text that suggests inclusion of water

Feed: Any single or multiple materials, whether processed, semi-processed or raw, which is intended to be fed directly to food-producing animals (Code of Practice on Good Animal Feeding, CAC/RCP 054-2004). ~~In this guideline, includes water.~~

Rationale: Consistent with the Code of Practice on Animal feeding we do not agree that drinking water should be considered.

Transfer definition. Suggest deletion of the text in brackets

Transfer: Transfer of a hazard to an edible product from feed of a food-producing animal (~~usually expressed quantitatively as a transfer coefficient~~).

Rationale: Suggest deletion of the text in brackets as there are many ways of expressing the transfer including through the use of sophisticated models and additionally the nomenclature for the various simple factors used is not harmonised.

Also need to agree harmonised definition for use in both this document and the guidance document.

Paragraph 22. Introduction of a new paragraph

Suggest introduce a new paragraph before para 22.

To establish potential relevance to human health, data on the exposure of consumers to the hazard that includes the contribution of foods of animal origin is required. In the absence of monitoring data on levels in edible products it may be necessary to estimate likely hazard levels using data on levels found in feed, feeding practices and information on the transfer of the hazard from feed to food.

Rationale: Relevance to human health relates to the actual human exposure. The relative contribution of foods of animal origin may also be required if there are multiple pathways for human dietary exposure, for example mycotoxins

where cereals often dominate exposure with animal derived foods being minor contributors. The data required is best from actual surveys of food.

Also there needs to be some linking text to indicate to introduce factors derived from animal studies

Paragraph 22

The existing paragraph 22 needs some minor editorial changes.

22. To establish potential relevance to human health, it is essential to have some estimate of the transfer of hazard in feed to edible product. Factors which will influence the transfer ~~rate~~ **of chemicals from feed to edible products** include:

- The physico-chemical characteristics of the hazard, e.g. pKa ~~or~~ pKb, log Kow, water solubility, and chemical and thermal stability.
- Kinetics of the hazard in the food-producing animal, including systemic absorption, metabolism (including generation of hazardous metabolites), distribution and accumulation potential of hazard in body compartments, and extent of transfer of hazard into edible products

Rationale: text is most relevant for chemical rather than microbiological hazards.

Paragraph 24

Suggest deletion of rate from the text.

24. In some cases, published toxicokinetic or other models that can predict the transfer ~~rate~~ of hazard from feed to edible products, may be used or adapted.

Rationale: often it is transfer and not transfer rate that is estimated.

Paragraph 32

Australia suggests replacing paragraph 32 with paragraphs 16 and 16 from the previous version copied below

~~32. Factors to consider in evaluating the potential impact on international trade include:~~

- ~~– Number of feeds and edible products potentially affected by a given hazard.~~
- ~~– Volume of production and consumption of potentially affected feed and related edible products in individual countries and volume and pattern of trade between countries.~~
- ~~– International or regional market potential.~~

16. Trade in primary feed ingredients and additives intended for food-producing animals is of worldwide economic importance. Animal feed is crucially important in the safety of food of animal origin. This document is intended to facilitate international comparability of feed hazard prioritisation, thus promoting fair practices in international feed and food trade.

17. Trade considerations are not relevant to the assessment of hazard within a risk analysis, but may be very relevant to the management of risk and where a country needs to prioritise risk management actions (Working Principles for Risk Analysis for Food Safety for Application by Governments; CAC/GL 62-2007).

Rationale: the “old” text provides greater clarity as to why impact on international trade should be considered. The paragraph numbering will need to be modified if this change is accepted.

Section Potential Feed Hazards

Australia suggests the document would read better if paragraphs 71 and 72 were moved to appear before paragraph 33.

Rationale: For clarity. Also the move would better incorporate Figure 2 into the document.

Paragraph 43

Suggest adding the reference to the Code of Practice on Good Animal Feeding which contains a reference to ruminant animal material (RAM) as an undesirable substance in feed.

43. Reference is made to the Code of Hygienic Practice for Meat (CAC/RCP 58-2005) **and the Code of Practice on Good Animal Feeding (CAC/RCP 54-2004)**, which recommends that animals should not be given feed and feed ingredients that are recognised as likely to introduce zoonotic agents (including transmissible spongiform encephalopathy agents) to the slaughter population.

Rationale: completeness

paragraph54

Correction of spelling

Toxins can include ~~pyrrolizidine~~ **pyrrolizidine** alkaloids...

Section: Table 1

Comments and suggestions for rows in Table 1

Row: Forages (pasture, hay, silage) - Botanical contamination, environment, field conditions, plant species -Bacteria, endo-parasites, mycotoxins, plant toxins, heavy metals, ~~dioxin~~, organic chemicals, radionuclides

Rationale: dioxins are included under organic chemicals, consistency with other entries that follow.

Row: Plant feed or feed ingredient – Crop and harvest (environment, field conditions, plant species) - Hazard. **Pesticide residues Residues.**

Does residues refer to pesticide residues? If so suggest change entry to:

Pesticide residuesResidues,

Rationale: Does residues refer to pesticide residues? If so suggest change entry to “Pesticide residues” as indicated above for clarity

Row: Plant feed or feed ingredient – ~~Manufacturing~~ (carry-over **or**, cross-contamination **during manufacturing**), byproducts from industrial food-production, processed feed ingredients, mixed feed

Rationale: editorial for clarity

Row: Plant feed or feed ingredient – **Failure of treatment Treatment** to eliminate toxins or for conservation (heat/acid/pressure etc.)

Rationale: editorial, the risk is not the treatment but its efficacy

Row: Minerals, including additives (trace elements and binders) - Origin, purity, authorization (trace elements)

Clarification sought: Australia seeks clarification of “authorization (trace metals) in the table

EUROPEAN UNION

English

The European Union (EU) would like to congratulate Switzerland for the excellent work with the revised document which substantially clarifies many aspects of the discussion and takes into account the different comments sent. The EU would like to submit the following comments to this revised document. Many of the previous EU comments on the first version of the document are to be considered still valid.

(i) General comments

The EU welcomes that the revised document expands the section on the criteria for prioritizing hazards, as requested in the terms of reference.

The section on the potential feed hazards in this revised document presents the series of factors and criteria in more condensed and general terms than the previous version. In its present state it does not seem very clear in providing advice on developing a prioritised list of hazards. The EU considers that it is worth considering how best to fulfill more completely the terms of reference given to the Task Force, i.e. *to develop a prioritised list of hazards in feed ingredients and feed additives for governmental use. The list should contain hazards of international relevance that are reasonably likely to occur, and are thus likely to warrant future attention.* The EU concurs with Canada that this document could represent a significant step in helping identifying relevant hazards in animal feed and serve as an important tool in the development of a prioritised list of hazards.

(ii) Specific comments

Table of contents

The references to the tables 1, 2, and 3 are not clear and the page numbers not included.

Heading: Definitions

Definition of feed. The EU would like the definition of feed to be consistent with the definition in the Codex Code of Good Animal Feeding.

The additional sentence added ("in this guideline includes water") should be deleted. Water for drinking could be mentioned as such wherever in the document it is relevant.

The definition of "processing aid" in page 6 which is the standard in Codex could be adapted in this case to the situation in feed by replacing the word "food" with "feed".

Definition of contaminants. The final sentence regarding its applicability should read "For the purposes of this document the term food in the definition of contaminant should be taken as referring to "feed and food".

Heading: Relevance to human health

Point 16. The EU would propose the following alternative wording:

Hazards in feed can include biological agents (viruses, bacteria, endoparasites and prions), chemical substances (such as "heavy metals", dioxins, excessive levels of pesticides, veterinary drugs and additives), radionuclides and other undesirable substances.

The definition of undesirable substances from the Code of Good Animal Feeding should be included in the list of definitions in the corresponding section.

Point 22. The references to the concepts of pKa/pKb and log Kow should be more explained if included.

Point 29. It should be clarified that the "appended tabulated summaries" mentioned in the second sentence refer presumably to both the two Tables 1 and 2.

Point 33. It states that the list is not exhaustive. Therefore, "The following are examples only" in point 70 should be deleted, because it is valid for all the other paragraphs in between.

Point 35. Salmonella. The EU would suggest to delete the last sentence. Justification: a wide range of serotypes frequently cause diseases in humans and thus are of public health significance. Although some serotypes are rarely reported in human cases, all the serotypes may be regarded as a hazard for public health.

Point 41 states that the risk of virus can be minimized by respecting good food hygienic practice (last sentence). This is valid for other hazards also and should be mentioned there too, or should be included in a general statement in point 33.

Point 59. From the second sentence onwards, the text could be replaced with: Dioxins in feed may arise by contamination, for example roughages and pasture exposed to combustion sources (e.g waste incineration plants, fossil fuel power stations, bush fires, exhaust gases), feed ingredients subject to a direct fuel combustion drying process, food co- and by-products (such as fish meal and fish oils) from contaminated environments. Dioxins may also arise in mineral feeds, such as clays, recuperated copper sulphate, zinc oxide.

Point 62, last indent: It is a little difficult to connect the Terms of reference of CCFA with "Residues of feed additives and other residues of certain processing aids".

Point 72. Figure 2 should have attached a more detailed explanation regarding its connection with Tables 1 and 2 and how it would work in practice. What is the relationship between the boxes in the figure? Is there a sequence of flow in the figure? Should there not be arrows in that case?

The factors and the criteria used in the figure could be better separated, as there is no distinction among them in the figure.

Heading: Table 1: factors affecting occurrence of hazards in feed and feed ingredients

Row "plant feed or feed ingredient". It should be clarified why the words "pathogenic bacteria" are put in brackets.

Column "feed or feed ingredient".

There may be feed ingredients which do not fall under any of the subheadings foreseen of plant origin, of (terrestrial or aquatic) animal origin, of mineral origin or from fermentation origin, such as synthetic products. An explanation such as "Feed or feed ingredients of none of these origins are not considered" could be mentioned.

Column "Risk Factor":

- The term cross-contamination is mentioned in three places. If both the new definitions of cross-contamination and the one on carry-over are maintained, this latter term carry-over should also be added in this table.
- In the row "Fat/oil", "manufacturing" should be added.

Row "plant feed or feed ingredient". The fourth sub-row under the column "risk factor", "Treatment to eliminate toxins or for conservation" is not a risk factor but on the contrary results in a reduction of the risk. Therefore, this sub-row should be deleted.

Row "land animal and milk products". Possibly it is meant "land animal products and derived products".

Row risk factor "livestock conditions". Under the column hazard the items: "residues of veterinary drugs, heavy metals, residues of feed additives" should be added.

Row risk factor "Condition of storage,...". The term cross contamination should be added in the brackets for transport and under the column hazard prions, viruses and endoparasites should be added.

In addition, the three risk factors in the second column are related to these products and therefore the cells of the table in the first column should be merged (separating lines to be deleted).

Table 1, row "fish, other marine animals". May be it should be "aquatic animals" instead of "marine animals", as there are also fresh water animals.

In addition, the three risk factors in the second column are related to these products and therefore the cells of the table in the first column should be merged (separating lines to be deleted).

Table 1, row Minerals: Authorization is mentioned as a risk factor. This should be clarified.

Heading: Table 2: Factors affecting occurrence of hazards in edible products

The second column "feed sources and risk factors" is not very clear as it puts together the two concepts. Possibly the sources and the factors could be better separated in two different columns.

Row mycotoxins. They can also appear in kidney and therefore this should be added in the column edible products.

Row "Other alkaloids". Botanical impurities can also occur in grains and not only in forages and therefore "grains" could be added in the second column.

Rows "dioxins" and "veterinary drug, pesticide, processing aid residues". Under the column "edible products" fatty fish and products should be added.

Row "dioxins". The use of a chemical step process could have a concentrating effect so this factor could also be added.

Row "organochlorine pesticides", the edible products should be the same as for dioxins.

Row "veterinary drug, pesticide, processing aid residues" should be completed with feed additive residues.

The sorting of the rows concerning the chemical hazards in this table could be reconsidered as the criteria used in their sorting is not clear.

Français

L'Union européenne (UE) tient à féliciter la Suisse pour l'excellent travail que représente la version révisée de ce document, qui précise de manière substantielle de nombreux aspects de la question examinée et tient compte des différentes observations formulées. L'Union européenne soumet les observations suivantes sur le document révisé. Il y a lieu de considérer que de nombreuses observations déjà formulées par l'Union à propos de la première version du document restent valables.

i) Remarques générales

L'Union européenne se félicite que le document révisé développe le point sur les critères permettant de classer les dangers par ordre de priorité, comme demandé dans le mandat.

La section sur les éventuels dangers liés aux aliments pour animaux dans la version révisée du document présente les séries de facteurs et de critères dans des termes plus condensés et plus généraux que la version précédente. En l'état actuel, cette section ne semble pas fournir de conseils très clairs à propos de l'élaboration d'une liste hiérarchisée des dangers. L'Union considère qu'il serait utile d'envisager la meilleure façon d'exécuter de manière plus exhaustive le mandat conféré au groupe, à savoir «l'élaboration d'une liste prioritaire des dangers (liés aux ingrédients d'aliments pour animaux et aux additifs de tels aliments) à l'intention des gouvernements. La liste devrait comprendre les dangers présentant un intérêt à l'échelon international qui, raisonnablement susceptibles de se produire, pourraient exiger une attention particulière à l'avenir». L'Union européenne estime, à l'instar du Canada, que ce document pourrait constituer une étape majeure dans le processus devant faciliter la détermination des dangers pertinents liés aux aliments pour animaux, et un outil important dans l'élaboration d'une liste hiérarchisée des dangers.

ii) Observations spécifiques

Table des matières

Les références aux tableaux 1, 2 et 3, ne sont pas claires et les numéros de page n'apparaissent pas.

Rubrique: définitions

Définition du terme «aliments pour animaux». L'Union européenne aimerait que la définition du terme «aliments pour animaux» concorde avec celle figurant dans le *Code d'usage pour une bonne alimentation animale*.

Il faudrait supprimer la phrase supplémentaire qui a été ajoutée («Dans la présente ligne directrice, cela inclut l'eau»). L'eau potable pourrait être mentionnée en tant que telle dans le document chaque fois que cela est pertinent.

La définition du terme «auxiliaire technologique» qui figure à la page 6 est la définition habituelle dans le Codex et pourrait être adaptée ici au contexte des aliments pour animaux, le terme «denrées alimentaires» étant dans ce cas remplacé par «aliments pour animaux».

Définition des contaminants. La dernière phrase relative à l'applicabilité du terme devrait être libellée comme suit: «Aux fins du présent document, le terme “denrées alimentaires” figurant dans la définition du présent terme doit être compris comme «aliments pour animaux et denrées alimentaires».

Rubrique: pertinence pour la santé humaine

Point 16. L'Union européenne propose le libellé suivant:

Dans les aliments pour animaux, les dangers peuvent se présenter sous la forme d'agents biologiques (virus, bactéries, endoparasites ou prions), de substances chimiques (telles que les «métaux lourds», les dioxines, des teneurs excessives en pesticides, en médicaments vétérinaires ou en additifs), de radionucléides ou d'autres substances indésirables.

Il faudrait insérer dans la liste des définitions, dans la section appropriée, la définition du terme «substances indésirables» figurant dans le *Code d'usages pour une bonne alimentation animale*.

Point 22. Si les références aux notions de «pKa/pKb» et de «log Kow» sont retenues, il y faudrait encore expliquer ces références.

Point 29. Il faudrait préciser que les termes «dans les tableaux résumés annexés» figurant dans la deuxième phrase font probablement référence tant au tableau 1 qu'au tableau 2.

Point 33. Il est indiqué que la liste n'est pas exhaustive. Par conséquent, il y aurait lieu de supprimer la mention «Ce qui suit ne sert que d'exemple» au point 70, car cette remarque vaut pour tous les points précédant celui-ci.

Point 35. *Salmonella*. L'Union propose la suppression de la dernière phrase. Justification: toute une série de sérotypes provoquent fréquemment des maladies chez l'homme et représentent, de ce fait, un problème de santé publique. Si certains sérotypes sont rarement signalés chez l'homme, tous peuvent être considérés comme un danger pour la santé publique.

Au point 41 (dernière phrase), il est indiqué que «la possibilité d'une contamination (virale) peut être minimisée en pratiquant une bonne hygiène des denrées alimentaires». Cette mention étant aussi valable pour d'autres dangers, il conviendrait de la faire figurer pour ceux-là également, ou d'apporter cette précision dans une remarque générale formulée au point 33.

Point 59. À partir de la deuxième phrase, le texte pourrait être libellé comme suit: «Les dioxines dans les aliments pour animaux peuvent être issues d'une contamination, par exemple par des fourrages grossiers et des pâtures exposés à des sources de combustion (installations d'incinération de déchets, centrales électriques à combustibles fossiles, feux de brousse, gaz d'échappement, etc.), par des ingrédients d'aliments pour animaux soumis à un procédé de dessiccation à combustion directe du combustible ou par des coproduits et sous-produits de denrées alimentaires (comme les farines et huiles de poisson) provenant d'environnements contaminés. Les dioxines peuvent aussi se former dans des aliments minéraux tels que les argiles, le sulfate de cuivre récupéré ou l'oxyde de zinc».

Point 62, dernier tiret: il est assez difficile de faire le lien entre le mandat du CCFA et les «résidus d'additifs pour l'alimentation animale et autres résidus de certains auxiliaires technologiques».

Point 72. Il faudrait joindre à la figure 2 une explication plus détaillée concernant le lien entre ce schéma et les tableaux 1 et 2 ainsi que le processus concret envisagé. Quelle est la relation entre les cadres figurant dans le schéma? Y a-t-il une séquence, un flux particulier à respecter dans ce contexte, auquel cas il conviendrait peut-être d'insérer des flèches l'indiquant?

Aucune distinction n'étant opérée entre les facteurs et les critères utilisés dans le schéma, il y aurait peut-être lieu de mieux séparer ceux-ci.

Rubrique: tableau 1: facteurs affectant la présence de dangers dans les aliments pour animaux et leurs ingrédients

Ligne «Aliment pour animaux ou ingrédient d'origine végétale». Il conviendrait de préciser pourquoi le terme «bactéries pathogènes» est mis entre parenthèses.

Colonne «Aliment pour animaux ou ingrédient pour ces aliments».

Il peut y avoir des ingrédients pour l'alimentation animale dont l'origine ne relève d'aucune des sous-rubriques prévues [végétale, animale (animaux terrestres ou aquatiques), minérale ou fermentation], tels que les produits synthétiques. Une explication telle que «Les aliments pour animaux ou ingrédients d'aliments ne relevant pas de l'une des origines mentionnées ne sont pas pris en considération» pourrait être ajoutée.

Colonne «Facteur de risque»:

- le terme «contamination croisée» est mentionné à trois reprises. Si les deux nouvelles définitions («contamination croisée» et «transfert») sont maintenues, il faudrait aussi ajouter ce dernier terme («transfert») dans ce tableau;
- à la ligne «Matières grasses/huile», il faudrait ajouter le terme «fabrication».

Ligne «Aliment pour animaux ou ingrédient d'origine végétale». La mention figurant à la quatrième ligne dans la colonne «Facteur de risque», sous «Traitement permettant d'éliminer les toxines ou traitement de conservation», n'est pas un facteur de risque, mais entraîne au contraire une réduction du risque. Il faudrait donc supprimer cette ligne.

Ligne «Animaux terrestres et produits laitiers». N'y aurait-il pas lieu de comprendre «Produits issus d'animaux terrestres et produits dérivés»?

Colonne «Facteur de risque», ligne «État du cheptel». Dans la colonne «Danger», il faudrait ajouter les éléments «résidus de médicaments vétérinaires, métaux lourds, résidus d'additifs pour l'alimentation animale».

Colonne «Facteur de risque», ligne «Conditions de stockage, [...]». Il faudrait ajouter le terme «contamination croisée» dans la parenthèse relative au transport et ajouter les prions, les virus et les endoparasites dans la colonne «Danger».

En outre, les trois facteurs de risque mentionnés dans la deuxième colonne étant liés à ces produits, il faudrait fusionner les cellules du tableau de la première colonne (séparation à supprimer).

Tableau 1, ligne «Poissons et autres animaux marins». N'y aurait-il pas lieu de remplacer le terme «animaux marins» par «animaux aquatiques» pour tenir compte des animaux d'eau douce?

En outre, les trois facteurs de risque mentionnés dans la deuxième colonne étant liés à ces produits, il faudrait fusionner les cellules du tableau de la première colonne (séparation à supprimer).

Tableau 1, ligne «Origine minérale»: l'autorisation est mentionnée comme un facteur de risque. Il faudrait préciser.

Rubrique: tableau 2: facteurs affectant la présence de dangers dans les produits comestibles

L'intitulé de la deuxième colonne, «Sources des aliments pour animaux et facteurs de risque», n'est pas très clair, car il regroupe les deux notions. Il pourrait être indiqué de séparer les sources et les facteurs dans deux colonnes distinctes.

Ligne «Mycotoxines». Les mycotoxines pouvant également apparaître dans les reins (rognons), il faudrait ajouter ces derniers dans la colonne «Produits comestibles».

Ligne «Autres alcaloïdes». Des impuretés botaniques pouvant également apparaître dans les grains de céréales, et non dans les seuls fourrages, le terme «grains de céréales» pourrait être ajouté dans la deuxième colonne.

Lignes «Dioxines» et «Résidus de médicaments vétérinaires, pesticides, auxiliaires technologiques». Dans la colonne «Produits comestibles», il faudrait ajouter les poissons gras et produits de poisson gras.

Ligne «Dioxines». Le recours à un procédé de traitement chimique pourrait entraîner une concentration des dioxines; ce facteur pourrait dès lors être aussi ajouté.

Ligne «Pesticides organochlorés», les mentions figurant dans la colonne «Produits comestibles» devraient être les mêmes que celles indiquées pour les dioxines.

Il faudrait compléter la ligne «Résidus de médicaments vétérinaires, pesticides et auxiliaires technologiques» en y ajoutant les résidus d'additifs pour l'alimentation animale.

Le classement des lignes relatives aux dangers chimiques dans ce tableau pourrait être revu, les critères utilisés pour ce classement n'étant pas clairs.

Español

La Unión Europea (UE) desea felicitar a Suiza por el excelente trabajo realizado con el documento revisado, que aclara sustancialmente muchos aspectos del debate y toma en consideración las observaciones que se le enviaron. La UE desea presentar las siguientes observaciones al texto del documento revisado. (Muchos de los comentarios anteriores de la UE sobre la primera versión del documento siguen siendo válidos).

i) Observaciones generales

A la UE le parece bien que en el documento revisado se amplíe el apartado referente a los criterios de priorización de los peligros, como se pidió en el mandato.

En el apartado con la lista de peligros de los piensos del documento revisado se presenta la serie de factores y criterios de modo más sintético y general que en la versión previa. En su forma actual no resulta muy claro como orientación para crear una lista priorizada de los peligros. La UE considera que merece la pena estudiar la mejor manera de

responder más plenamente al mandato que se le dio al Grupo de Acción, a saber, *establecer una lista priorizada de peligros en los ingredientes y aditivos de los piensos, para uso de los gobiernos. En la lista deben figurar peligros de importancia internacional y que cabe razonablemente esperar que se presenten, por lo que es probable que haya que prestarles atención en el futuro.* La UE coincide con Canadá en que este documento podría ser un paso importante que contribuyera a determinar los peligros presentes en los piensos, y una herramienta poderosa para establecer una lista priorizada de peligros.

ii) Observaciones específicas

Índice

Las referencias a las tablas 1, 2 y 3 no están claras ni paginadas.

Epígrafe: Definiciones

Definición de piensos. La UE considera que la definición de «piensos» debe ser coherente con la definición del Código del Codex sobre Buena Alimentación Animal.

Debe suprimirse la frase añadida («Para los fines de estas directrices, se incluye el contenido de agua en el pienso»). El agua para beber puede mencionarse como tal cuando sea pertinente para el documento.

La definición de «coadyuvante de elaboración» de la página 5, que es la estándar del Codex, podría en este caso adaptarse a la alimentación animal, sustituyendo «alimentos» por «piensos».

Definición de contaminante. La última frase, relativa a su aplicabilidad, debería decir «En este documento, el término “alimento” empleado en la definición de contaminante deberá leerse como “pienso o alimento”»

Epígrafe: Importancia para la salud humana

Punto 16. La UE propone el siguiente texto alternativo:

Entre los peligros presentes en el pienso se pueden incluir los agentes biológicos (virus, bacterias, endoparásitos y priones), las sustancias químicas (como los «metales pesados», las dioxinas, los niveles excesivos de plaguicidas, los medicamentos de uso veterinario y los aditivos), los radionucleidos y otras sustancias indeseables.

Debe incluirse la definición de sustancias indeseables del Código sobre Buena Alimentación Animal en la lista de definiciones del apartado correspondiente.

Punto 22. Hay que explicar mejor las referencias a los conceptos de pKa/pKb y log Kow, si se incluyen.

Punto 29. Hay que aclarar que los «resúmenes tabulados anexos» mencionados en la segunda frase hacen probablemente referencia tanto a la tabla 1 como a la 2.

Punto 33. Dice que la lista no es exhaustiva. Por eso hay que suprimir del punto 70 la expresión «Los siguientes compuestos son solo ejemplos», pues es válida para todos los apartados entre ambos puntos.

Punto 35. *Salmonella*. La UE propone suprimir la última frase. Justificación: son muchos los serotipos que suelen producir enfermedades humanas, por lo que tienen significación en salud pública. Aunque algunos serotipos afectan raramente a las personas, todos ellos pueden considerarse una amenaza para la salud pública.

En el punto 41 se afirma (última frase) que el riesgo de los virus se puede reducir al mínimo respetando las buenas prácticas higiénicas con los alimentos. Esto es válido también para otros riesgos, por lo que también hay que mencionarlo en tales casos, o incluirlo como observación general en el punto 33.

Punto 59. A partir de la segunda frase, el texto podría sustituirse por el siguiente: En el pienso, las dioxinas pueden surgir de la contaminación, por ejemplo, de forrajes bastos y pastos expuestos a fuentes de combustión (por ejemplo: plantas incineradoras de desechos, centrales eléctricas de combustibles fósiles, incendios forestales y gases de escape), de ingredientes de piensos sometidos a un proceso directo de secado por quema de combustible, y de coproductos o subproductos alimentarios (como la harina de pescado y los aceites de pescado) procedentes de entornos contaminados. Las dioxinas pueden también producirse en piensos minerales, como arcillas, sulfato de cobre recuperado u óxido de zinc.

Punto 62, último guion. Resulta algo difícil establecer la relación entre el mandato del CCFA y los «residuos de aditivos alimentarios y otros residuos de ciertos coadyuvantes de elaboración».

Punto 72. La figura 2 debería contar con una explicación más detallada de su conexión con las tablas 1 y 2, y de cómo funcionaría esto en la práctica. ¿Cuál es la relación entre las casillas de la figura? ¿Hay un flujo secuencial en la figura? Si es así, ¿no convendría indicarlo con flechas?

Podrían separarse mejor los factores y los criterios indicados en la figura, en la cual no hay distinción entre ellos.

Epígrafe: Tabla 1. Factores que afectan a la presencia de peligros en el pienso y en los ingredientes del pienso

Fila «Pensos o ingredientes del pienso vegetales». Hay que aclarar por qué se pone «bacterias patógenas» en paréntesis.

Columna «Pensos o ingredientes del pienso».

Puede haber ingredientes del pienso que no encajen en ninguna de las categorías previstas de origen vegetal, animal (terrestre o acuático), mineral o derivado de la fermentación, como es el caso de los productos sintéticos. Cabría incluir una explicación como «No se tienen en cuenta pensos ni ingredientes del pienso de otras procedencias».

Columna «Factor de riesgo»:

- La expresión «contaminación cruzada» aparece tres veces. Si se mantienen las nuevas definiciones tanto de «contaminación cruzada» como de «transmisión», este último término tiene que añadirse a esta tabla.
- En la fila «Grasas/aceites» hay que añadir «fabricación».

Fila «Pensos o ingredientes del pienso vegetales». En el tercer apartado, columna «Factor de riesgo», el «Tratamiento para eliminar toxinas o para la conservación» no es un factor de riesgo, sino que, al contrario, contribuye a reducirlo. Por lo tanto, hay que suprimir este apartado.

Fila «Animales terrestres y productos lácteos». Probablemente quiere decirse «Productos de animales terrestres, incluidos los productos derivados».

En la columna «Factor de riesgo», fila «Condiciones del ganado», hay que añadir en la columna de «Peligro» lo siguiente: «Residuos de medicamentos de uso veterinario, metales pesados, residuos de aditivos de pensos».

En la columna «Factor de riesgo», fila «Condición de almacenamiento», hay que añadir «contaminación cruzada» en el paréntesis que sigue al transporte, como hay que añadir en la columna «Peligro» «priones, virus y endoparásitos».

Además, los tres factores de riesgo de la segunda columna guardan relación con estos productos, por lo que hay que fusionar las casillas de la primera columna de la tabla (suprimir las líneas de separación).

Fila «Peces, otros animales marinos». Tal vez sea mejor animales «acuáticos» en vez de «marinos», pues también hay peces de agua dulce.

Además, los tres factores de riesgo de la segunda columna guardan relación con estos productos, por lo que hay que fusionar las casillas de la primera columna de la tabla (suprimir las líneas de separación).

Fila «Minerales...»: La autorización aparece como factor de riesgo. Esto hay que clarificarlo.

Epígrafe: Tabla 2. Factores que afectan a la presencia de peligros en los productos comestibles

La segunda columna «Fuentes de alimentos y factores de riesgo» no es clara, pues mezcla ambos conceptos. Sería mejor separar en dos columnas las fuentes y los factores.

Fila «Micotoxinas». También pueden aparecer en el riñón, por lo que hay que añadirlo en la columna «Productos comestibles».

Columna «Otros alcaloides...». La contaminación botánica puede también darse en los granos, no solo en los forrajes, por lo que hay que añadir «granos» en la segunda columna.

Filas «Dioxinas...» y «Medicamentos veterinarios, plaguicidas y residuos de coadyuvantes de elaboración». En la columna «Productos comestibles» hay que añadir «pescado graso y productos grasos».

Fila «Dioxinas...». El recurso a un proceso químico por etapas podría tener un efecto de concentración, por lo que podría añadirse este factor.

Fila «Pesticidas organoclorados»: los productos comestibles deben ser los mismos que en el caso de las dioxinas.

La fila «Medicamentos veterinarios, plaguicidas y residuos de coadyuvantes de elaboración» debe completarse con «residuos de aditivos de pensos».

Podría replantearse la distribución de las filas relativas a los peligros químicos en esta tabla, pues no están claros los criterios utilizados para la organización actual.

KENYA**General comment**

Kenya would like to thank the secretariat for the development of this draft document to facilitate the prioritized list of hazards in feeds. This document will serve as an important tool especially for the developing countries, which lack data most of the time, in coordinating the development of prioritized hazards in animal feeds.

Specific comment

1.As we develop this documents we need to tie up the scope with clause 7 below to be comprehensive in the body of the document.

2.The committee needs to take into consideration that any maximum limit recommended by CAC to be legally permitted in or on food stuff and animal feeds.

7. Hazards in feed can be biological or chemical. Biological hazards comprise bacteria, endoparasites, viruses and prions. Chemical hazards comprise toxic elements (including radionuclides), organic chemicals including toxins, veterinary drugs and pesticides, dioxins and other chemicals. Physical feed contaminants

MALI

Le Mali félicite la Suisse pour la préparation de l'avant projet. Il n'a pas d'observations particulières sur l'avant projet et est favorable à sa progression à l'étape suivante de la procédure.

PHILIPPINES**(i) General comments:**

Philippines would like to thank the Secretariat for the revision of the draft documents and for the opportunity to provide comments on the "Proposed Draft Prioritised List of Hazards in Feed" at step 3 of the Procedure. Philippines would like to submit the comment shown below

(ii) Comments on paragraphs:

Paragraph 9

Definitions

In the definition of "Transfer", insert "from feed of a food-producing animal" before "to an edible product" to read as follows:

Transfer: Transfer of a hazard (to an edible product) **from feed of a food-producing animal to an edible product** (usually expressed quantitatively as a transfer coefficient).

THAILAND

Thailand appreciated the opportunity to provide the following comments on CX/AF 12/6/5-Add.2

Definition; The term "Feed"

The inclusion of water in the definition of feed in the last sentence ("In this guideline, includes water") should be deleted since it is clear that this draft document addressed the matter related to prioritize hazards in feed, and not in water.

Prioritization of hazards in the framework of Codex risk analysis

Para 12: We are of the opinion that the sentence should be clear and more specific to feed in relation to food safety problem. Therefore we proposed to modify the text as follow;

"Preliminary risk management activities conducted by the risk manager prior to commissioning a risk assessment include identification of a feed ~~or-related to~~ food safety problem;.."

Para 13: (bullet 2) and para 62 (bullet 3 on processing aids)

These 2 bullets referred to the activities of Codex Committee on Food Additives. We considered that these 2 bullets should be deleted since currently the activity of Codex Committee on Food Additive are not related to feed or feed additive.

Criteria for prioritising hazard

Para 15: We would like to propose to modify the text in bullet 2 and 3 to be more specific to food of animal origin as follow;

"-extent of occurrence in feed and food **of animal origin, and**"

"- potential impact on international trade in feed and food **of animal origin**"

Para 16: We believed that the word "additives" in the 3rd line refers to feed additives therefore we proposed to modify the text as follow;

“...and excessive levels of pesticides, veterinary drugs and feed additives (and certain of their residues).”

Para 23: We consider that information on transfer rate is a scientific data generated from internationally recognized bodies. Generally, transfer rate is not available in national or Codex standard. The text should be amended as follow;

“Information on transfer rates for a given hazard may be available in ~~national or Codex standards such as the General Standard for Contaminants and Toxins in Food and Feed (CODEX STAN 193-1995)~~ or in international reports and monographs from bodies including JECFA, JMPR, JEMRA, WHO IPCS, WHO CICAD, and/or in the scientific literature.”

Para 72: As we proposed to amend the term “...feed and food” in para 15, therefore this term should be changed as follows;

“Figure 2 summarises factors, which determine the occurrence of hazard in feed and food of animal origin. The resulting occurrence should be considered in relation to the three criteria for hazard prioritisation, namely relevance to human health, extent of occurrence, and impact on international trade in feed and food of animal origin. More detailed information is given in Tables 1 and 2.

Table 1: Factors Affecting Occurrence of Hazards in feed and feed ingredients

We considered that some significant hazards mentioned in the main text are missing. Furthermore, Land animal and Milk product should be separated for clearly detail. Therefore we proposed to revise the table to consistent with the main text and table 2 as follows;

Feed or feed ingredient	Risk factor	Hazard
Plant feed or feed ingredient	Crop and harvest (environment, field conditions, plant species)	Residues, environment chemicals, heavy metal, plant toxins, mycotoxins, radionuclides, (pathogenic bacteria)
	Manufacturing (carry-over, cross-contamination), by-products from industrial food-production, processed feed ingredients, mixed feed	Residues of veterinary drugs, residues of feed additives and processing aids , <u>mycotoxin / heavy metal</u>
	Treatment to eliminate toxins or for conservation (heat/acid/pressure etc.)	Plant toxins or bacteria
	Condition of storage, transport (moisture, temperature), manufacturing (cross-contamination)	Pathogenic bacteria, mycotoxins, toxic elements
<u>Terrestrial animal origin</u>		
Land animal and milk products	Livestock conditions (animal, environment)	Bacteria, viruses, endoparasites, prions
	<u>Manufacturing (carry-over, cross-contamination), by-products from industrial food-production, processed feed ingredients, mixed feed</u>	<u>Residues of veterinary drugs, residues of feed additives and processing aids</u>
	Inadequate treatment (heat/acid/pressure etc.)	Bacteria, viruses, endoparasites or prions
	Condition of storage, transport (moisture, temperature), manufacturing (cross-contamination)	Bacteria, toxic elements
<u>milk products</u>	<u>Livestock conditions (animal, environment)</u>	<u>Bacteria, viruses, mycotoxin, radionuclide, residues of veterinary drugs and pesticide</u>
	<u>Manufacturing (carry-over, cross-contamination), by-products from industrial food-production, processed feed ingredients, mixed feed</u>	<u>residues of feed additives and processing aids</u>
	<u>Inadequate treatment (heat/acid/pressure etc.)</u>	<u>Bacteria, viruses,</u>
	<u>Condition of storage, transport (moisture, temperature), manufacturing (cross-</u>	<u>Bacteria, toxic elements</u>

Feed or feed ingredient	Risk factor	Hazard
	contamination	
<u>Aquatic animal origin</u>		
Fish, other marine animals	Aquatic environment	Heavy metal, organic chemicals, bacteria, viruses, radionuclides
	<u>Manufacturing (carry-over, cross-contamination), by-products from industrial food-production, processed feed ingredients, mixed feed</u>	<u>Residues of veterinary drugs, residues of feed additives and processing aids</u>
	Inadequate treatment (heat/acid/pressure etc.)	Bacteria
	Condition of storage, transport (moisture, temperature), manufacturing (cross-contamination)	Bacteria, toxic elements
<u>Fermentation by-products</u>		
Protein concentrate from bacteria and yeasts	Processing, storage, transport	Bacteria, antibiotics, <u>mycotoxin</u>

Table 2: Factors Affecting Occurrence of hazards in edible products

We proposed to add the text as follow;

Hazard	Feed sources and risk factors	Edible products
<u>Chemicals</u>		
Radionuclides: ⁹⁰ Sr, ¹³¹ I, ¹³⁴ Cs, ¹³⁷ Cs	Contaminated feed and forages. Inadequate environmental monitoring. <u>In case of accident disaster</u>	Milk (radioiodines, radiocesium), Bone (radiostrontium), meat (radiocesium)
Mycotoxins	Produced by carbohydrate-catabolising fungi, found in cereals (especially wheat, sorghum and maize), in oilseed meals and cakes, and silage (e.g. aflatoxins from <i>Aspergillus flavus</i> , ochratoxins from <i>A. ochraceus</i> , zearalenone, fumonisins, trichothecenes such as deoxynivalenol) <u>and fermentation by-products</u>	Meat (depoxy-deoxynivalenol, zearalenol, ochratoxins), liver, milk, eggs (aflatoxins)