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CODEX COMMITTEE ON CONTAMINANTS IN FOOD
18th Session

Bangkok, Thailand, 23-27 June 2025

European Union comments on

Agenda Item 12:

Review of the Code of Practice for the reduction of aflatoxin B1 in raw materials and supplemental feedingstuffs for milk-producing animals (CXC 45-1997)

(CX/CF 25/18/13, CL 2025/23-CF)

Mixed Competence
Member States Vote

The European Union and its Member States (EUMS) welcome and appreciate the work of Canada as Chair and Saudi Arabia as Co-chair of the Electronic Working Group to prepare the discussion paper of the Code of Practice for the reduction of aflatoxin B1 in raw materials and supplemental feedingstuffs for milk-producing animals (CXC 45-1997).

The EUMS agree to propose new work on the revision of the abovementioned Code of Practice (CXC 45-1997).

The EUMS agree with the proposed project document in Appendix I to CX/CF 25/18/13 but suggest putting under point 9. Proposed timeline for completion of the work, the last sentence starting with "*Given that electronic working groups* (…)" immediately after the sentence ending "(…) *to CCCF19 in 2026*"

The EUMS have no comments as regards the outline for the proposed revised Code of Practice as presented in Appendix II to CX/CF 25/18/13 but provide already in Annex to this position specific comments to the content of the proposed revised Code of Practice for taking it already into account for the next version of the proposed revised Code of Practice.

ANNEX

Specific comments to Appendix II - Proposed Revisions to the Code of Practice for the reduction of aflatoxin B1 in raw materials and supplemental feedingstuffs for milk-producing animals (CXC 45-1997)

CODE OF PRACTICE FOR THE REDUCTION OF AFLATOXIN B1 IN FEEDS FOR MILK-PRODUCING ANIMALS

1. Introduction:

- paragraph 1 mentions that *Aspergilli* proliferate on "crops and silages". This restriction is not appropriate, as aflatoxins can also formed in compound feed (post-harvest), by-products and hay. In addition, the term "crops" is not defined under point 4. Definitions. It is proposed to replace "crops and silages" by "feeds" in order to take into account all stages in feed production where aflatoxins can be formed.

- paragraph 3: The term “transmission” should be replaced by “transfer” and the term “milk production” by “milk yield”

- paragraph 6: *Measures that reduce the growth of Aspergillus fungi pre-harvest and post-harvest should therefore be an integral part of the production of feed for lactating dairy animals*.
Also, the time of non lactation of the dairy animals should be taken into account also with regard to animal health aspects. Therefore, it is proposed to delete the word “lactating”.

2. Purpose and Scope:

- paragraph 7: "*It does not recommend or review new physical, biological, and chemical methods for pre- or post-harvest aflatoxin control, although these are areas of further study*."

Since there are clear indications that cultivation forms such as companion planting (e.g., maize-bean) or Push-Pull cultivation (reference is made to AflaZ and SolFOOD projects – more info at https://aflasol.org/) can reduce fungal infection and thus mycotoxin contamination in maize, either directly or indirectly (via herbivorous insects, the question arises whether these cultivation methods should not be considered under "5.2 PREPARATION FOR PLANTING AND PLANTING”. Only crop rotation has been considered under point 35.

4. Definitions

Paragraph 12 Baleage
It should be considered if this definition is needed: baleage is also a kind of silage or haylage, only the storage type as a wrapped bale is different. This could be addressed by the proposed change of the definition of silage (see below)

- paragraph 16 Haylage:
“*Silage made from grasses and/or legumes, but not cereals, soybeans, or corn/maize. May refer to material that is either baled or stored in a silo (see also ‘Baleage’ and ‘Silage’)”*
It is proposed to delete the sentence “*May refer to material that is either baled or stored in a silo (see also ‘Baleage’ and ‘Silage’)”* as it is addressed by the proposed change of the definition of silage (see below) and to add at the end of the first sentence “*with a dry matter content of more than 50 %”.*

- paragraph 20 Silage: It is proposed to reword the definition as follows:
"Silage: Forage plants of high moisture content such as corn/maize, legumes, and grasses that have been chopped and stored in a silo or bale where they undergo in the absence of oxygen an anaerobic microbial fermentation process with the result of a preserved animal feed."

- paragraph 22: the definition refers to "daily ration" and it is therefore proposed to add "daily" before ration.

5. Recommended practices based on good agricultural Practice (GAP) and good Manufacturing practice (GMP):

5.1 General Recommendations

- paragraph 28: "*During all stages of the value chain, avoid mixing or separate, if already mixed, infected, mouldy, or damaged crop materials from those with lower rates of infection and/or damage."*

It can be mentioned that asymptomatic contamination can occur without visible signs of disease, and that separating already mixed, infected, mouldy, or damaged crop materials may be problematic with regard to contamination in such situations.

- paragraph 29: "*Consult with extension services on how to dispose of or destroy crops, crop residues or feed with high aflatoxin B1 concentrations that has been deemed unfit for use as feed. If burning contaminated materials, be aware that temperatures greater than approximately 268 °C are required for aflatoxin B1 to be destroyed*."

Burning of contaminated materials may be an inappropriate method and other applicable methods for thermal decontamination may be examined as well.

5.2 Preparation for planting and planting

- paragraph 34: "*Remove or destroy infected crop material left in the field as spores and other fungal structures may survive and serve as inocula for future crops*."

It is suggested to reword the sentence to enable better practical implementation: "*Remove infected crop material left in the field or shred it to such an extent that it can be incorporated into the soil (e.g., through ploughing or minimum tillage), allowing the material to be degraded by soil organisms, as otherwise spores and other fungal structures may survive and serve as inocula for future crops."*

- paragraph 36: "*Consider biological control methods like biofungicides and biopesticides that deliberately release competitive, non-aflatoxigenic A. flavus and A. parasiticus into the agricultural environment in order to suppress the natural occurrence of the aflatoxigenic fungi."*

It is considered that there is no need to refer specifically to terms biofungicides and biopesticides in this point as moreover the term biopesticides includes biofungicides.

5.4 Harvest

5.4.2 Forage crops

paragraph 61: it is proposed to delete the term “Baleage” (see comment on paragraph 12 suggesting to delete the definition for baleage)

paragraph 62: The term “*that of baleage is 45-50%, although 40-60% may be acceptable*.” should be replaced by “*that of haylage is 30-50 %”*

paragraph 63: “*Dry hay should be harvested from the field at a moisture content below 18% for small square bales, and below 14% for large bales. If damp hay must be harvested, hay driers can be effective in drying hay of up to approximately 25% moisture, but this depends on factors such as the hay’s composition, bale density, and air humidity.”*

It might be appropriate to refer to the possibility of self-ignition during the maturing process of hay if there is an insufficient drying (moisture content too high)

5.6 Storage

- paragraph 77: The use of preservatives in stored feed: It is appropriate to stress that the manufacturer's dosing instructions must be followed in order to prevent underdosed organic acids to be used as substrates by moulds. An underdosed addition of organic acids to moist stored grain can lead to aflatoxin formation. A fungicidal effect can only be achieved with the recommended dosage. When applying the acids, care should be taken to ensure homogeneous distribution.

5.6.2 Silage

- paragraph 91: "*Ensure uniform and adequate distribution of weight on top of any plastic used to cover silage, especially on the shoulders of the silo. Weigh down plastic with suitable material (e.g. tires, sand, or gravel-filled bags, soil) and ensure sufficient coverage to minimise air contact with the silage." –*

Due to ageing, crumbling steel-reinforced tyres release large quantities of their steel reinforcement, which, despite magnetic separation technology, cannot be completely removed from the silage. The use of this type of foreign body means that they cannot be completely eliminated and pose a risk to feed safety. Chronic sickness of cows as a result of foreign body disease caused by such nail-shaped foreign bodies has been repeatedly described in the specialised press. Therefore, steel-reinforced tyres should no longer be recommended as a weighting material for covering silos.

5.6.4 It is suggested to delete “and baleage” from the title in line with the comments on the definition of baleage (see point 16). Furthermore, there are only approvals of silage additives and not of baleage additives as balegage is included in the definition of silage (see comments on definition).

- paragraph 100: It is suggested to delete the term “and may also be used in baleages” (in line with the comment made on the definition in paragraph 12)

5.6.5 Hay

- paragraph 110 also recommends the use of organic acids in moist hay. To our knowledge, the extent to which dosage inaccuracies could promote mould proliferation and aflatoxin formation has not yet been investigated. Therefore, hay preserved in this way should be specifically analysed for aflatoxin levels. It is appropriate to add this.

5.7 Animal feeding

- paragraph 112 "*Be aware of feed ingredients that may contain elevated aflatoxin levels, such as certain grain or seed fractions (e.g. hull, bran), agricultural or food industry by-products, and products intentionally diverted from the human to the animal food stream.".*

This point is very important and should be strengthened if necessary. Such feed must comply with the applicable legal standards on aflatoxins in order to be used in animal nutrition and should be monitored more closely for aflatoxin levels on a risk-oriented basis.

- paragraph 113: "*Lactating animals should be prioritised for feeding rations with the lowest possible aflatoxin contamination*" must be stressed and it could be added that in case of use of high-risk feed - especially when feeding high-yielding dairy animals – such high-risk feed materials should be at high frequency/systematically be included in risk-oriented monitoring for aflatoxins.

5.7.1 “and Baleage” should be removed from the title (see comments before).

- paragraph 115: The term “and baleage” should be deleted because of the inclusion in the definition of silage (see comments before)

5.7.2 Decontamination measures

- paragraph 118: It is appropriate to add that the use of feed additives to reduce aflatoxin bioavailability is indicated in particular for high-producing dairy animals due to the increasing transfer rate with milk yield, especially if high-risk feed is (or has to be) used. This also applies if applicable maximum levels for feed are not (yet) exceeded in order to ensure that the maximum levels for AFM1 in milk are also complied with in high-producing animals (with a high transfer rate).