

**REPORT OF THE SCIENTIFIC COMMITTEE FOR ANIMAL NUTRITION
ON FIXING OF MAXIMUM PERMITTED LEVEL OF MYCOTOXINS
IN FEEDINGSTUFFS**

(Provisional opinion expressed: November 1992)

TERMS OF REFERENCE (July 1992):

The Scientific Committee for Animal Nutrition is requested to give an opinion on the following questions:

1. What is the threat to human health (workers and consumers) and animal health from mycotoxins (other than aflatoxins) which may be present in animal feedstuffs?
2. Can specific mycotoxins or classes of mycotoxins be identified as primarily responsible for these threats?
3. Is it possible to identify levels of mycotoxins (identified as 2 above) which will provide assurance of safety and be applied in practice?
4. Can procedures be devised which can be applied in agricultural practice to ensure minimisation of the health threat from the mycotoxins identified in 2 above? If so, what evidence is required to demonstrate their effectiveness?

BACKGROUND NOTE:

The community legislation for feedingstuffs aims to assure safety for the human consumer, animals and the environment, as well as the quality and wholesomeness of feedingstuffs. To this aim and in respect of mycotoxins, only aflatoxin B₁ and rye ergot are included in Council Directive 74/63/EEC¹ on the fixation of maximum permitted levels for undesirable substances and products in feedingstuffs. Recent scientific publications seem to indicate that there are sufficient reasons to believe that other mycotoxins present a threat to the health of the human consumer, user and to animal health, and that the official methods for sampling feedingstuffs (see below) for the assessment of mycotoxins may be unsuitable. On the other hand, the Commission has been informed by Member States that the industrial detoxification of mycotoxin-contaminated feedingstuffs (mainly raw materials) is authorized in some cases at the national level. This has given rise to the need for agreement, at Community levels, on the techniques used for detoxification in order to ensure the innocuity of those mycotoxin-derived products still present in the feedingstuffs.

The control of undesirable substances, at the authorised maximum levels should conform with Council Directive 83/228/EEC² on the introduction of Community methods of analysis and sampling for the official control of feedingstuffs and the first Commission

¹ O.J. No. L 38 (11.02.74) p. 31

² O.J. No. L126 (13.05.83) p. 23

Directive 76/371/EEC³ establishing Community methods of sampling for the official control of feedingstuffs.

OPINION OF THE COMMITTEE:

The SCAN has examined question 60 of the Commission, the bibliography that accompanies it (see "References") the information provided by scientists of recognized experience in this matter and has discussed each of the points of the Question. The Committee has reflected on the wide scope of the Question and the difficulties in answering each specific point. The Committee considers, however, that it is correct for it to take part in this debate although it is conscious that the spread and occurrence of human and animal mycotoxicoses has not been so prevalent nor as serious as thought likely some years ago. Based on the foregoing, the following interim declaration can be made:

1. The Committee believes that the "Official Authorities of Control" can best provide the relevant information to the Commission. However, the diagnosis of mycotoxicoses remains a difficult task. For this reason, the Committee suggests a study be carried out at Community level, in order better to define the situation with respect to the mycotoxins present in animal feedingstuffs.

Taking into account the wide distribution in nature of toxin-producing microscopic fungi, especially *Fusarium*, *Penicillium* and *Stachybotrys* types, these should be the first to come under examination.

2. The Committee considers that the main preoccupation of the "Official Authorities of Control" is human health, that is to say the potential risk for humans from consuming products of animal origin, contaminated by mycotoxins or their toxic metabolites. The evaluation of the potential risks does not have to be limited to possibly contaminated foodstuffs of animal origin, but should include all sources, for example fruits and vegetables, cereals, dry fruits which may contain mycotoxins or their metabolites and will thus contribute to their total ingestion by man.

From the point of view of human health, there are indications that ochratoxins should receive attention. This puts special emphasis on those animal species producing edible parts that can contain ochratoxins, such as blood, kidneys, and their products. According to this criterion, the control of ochratoxins in feedingstuffs for pigs and fattening poultry could be a first aim. In ruminants this would not be necessary since the toxins are detoxified during normal ruminal metabolism.

In view of the absence of externally submitted dossiers to be assessed, and given the special nature of the subject, the SCAN believes that the best way to assess each toxin is by detailed examinations of the available information in open sessions to which recognized specialists may be invited. To this end, the collaboration of the Member States is essential.

³ O.J. No. L102 (15.04.76) p. 1

Each opinion on a specific toxin should be the subject of individual consideration but before taking a position, it would be desirable to establish collaboration with SCV and SCF and to take note of the work of the Codex Alimentarius Commission (WHO-FAO).

3. With the information available at present the Committee is not able to answer this question. However the availability of representative samples and reliable and precise analysis methods will be central to any system aiming to guarantee the non-exceedence of defined maximum levels of mycotoxins.

With respect to the representativeness of samples the Committee is not aware if the methods outlined in the First Commission Directive 76/371/EEC⁴ establishing Community methods of sampling for the official control of feedingstuffs were tailored to the known distribution of mycotoxins and, therefore, are capable of giving representative samples.

With respect to the precision of the analysis methods, the Committee believes that this question must be submitted to a more specialized group such as the BCR.

In response to the Question the committee suggests to the Commission that a preliminary research study of the ability of science to answer from present knowledge should be carried out.

4. The SCAN has indirect knowledge of several products or methods for the detoxification of aflatoxins. The Committee recommends that products claiming the capacity to eliminate aflatoxins (detoxification) and seeking accession to the Annex of Council Directive 70/524/EEC, should be examined case by case.

Whether physical or chemical procedures, the committee considers that all sponsors should produce experimental evidence that the products resulting from the "detoxification procedure" are innocuous for consumers, target animals and users.

In summary, before proceeding to establish an Opinion on Question 60 of the commission, the SCAN informs the Commission that:

- a. The area covered by Question 60 is very wide and specialisation is required to answer it. Therefore, the Committee suggests to those Member States that have debated these matters to pass on to the Commission their conclusions as to protection of the health of consumers, users and animals.
- b. Given the considerable specialization required, and the absence of an external systematic compilation of information for review, the Committee proposes that new "open-sessions" be held in which scientists competent in these matters be invited. With this objective, the SCAN recommends that the Commission invites Member States to provide the names of scientists who might contribute to such open sessions.

⁴ O.J. No. L102 (15.04.76) p. 1

- c. The Committee suggests that the making of the reports necessary to answer each of sections 1 to 5 of Question 60 be entrusted to scientists of recognised standing in the relevant fields
- d. The SCAN proposes that the Commission ask the SCF and SVC to debate Question 60 also and to communicate to the SCAN their opinions. A practical form of co-ordination would be the participation of members of the latter committees in the open sessions of the SCAN should they agree to this method of working.

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⁵ O.J. No. L170 (03.08.70) p. 2

⁶ O.J. No. L38 (11.02.74) p. 31

⁷ O.J. No. L102 (15.04.76) p. 1

⁸ O.J. No. L102 (15.04.76) p. 8

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