GMP+ Feed Safety Assurance scheme

BCN

Dioxin monitoring in laying hens (rearing) feeds

NL2

GMP+ BCN-NL2

EN

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Feed for Food

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1 Introduction

1.1 General

The GMP+ Feed Safety Assurance Scheme (GMP+ FSA scheme) was initiated and developed in 1992 by the Dutch feed industry in response to various more or less serious incidents involving contamination in feed materials. Although it started as a national scheme, it has developed to become an international scheme that is managed by GMP+ International in collaboration with various international stakeholders.

The GMP+ FSA scheme is a complete scheme for the assurance of feed safety in all the links of the feed chain. Demonstrable assurance of feed safety is a 'license to sell' in many countries and markets and participation in the GMP+ FSA scheme can facilitate this excellently.

The basic principle of the GMP+ FSA scheme is that the feed chain is part of the food production chain. Proper quality assurance of feed safety throughout the feed chain has a high priority. It is important that companies take their responsibilities in this respect by responding in a proper and convincing way to the need for safe feed materials in the food production chain.

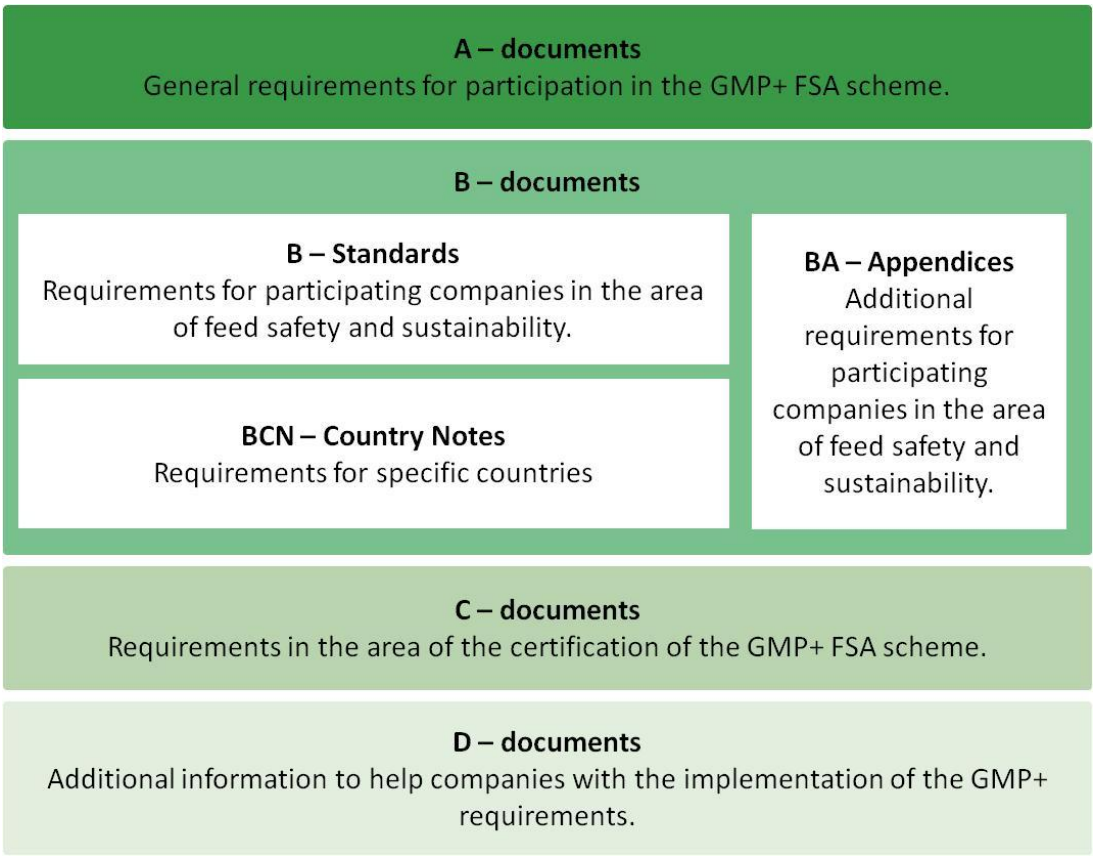
Based on needs in practice, multiple components have been integrated into the GMP+ FSA scheme, such as requirements for the quality management system (ISO 9001), HACCP, product standards, traceability, monitoring, prerequisites programmes, chain approach and the Early Warning System.

Together with the GMP+ partners, GMP+ International transparently sets clear requirements so that feed safety is guaranteed and certification bodies are able to carry out GMP+ certification independently.

GMP+ International supports the GMP+ participants with useful and practical information by way of its various databases, newsletters, Q&A lists and seminars.

1.2 Structure of the GMP+ Feed Safety Assurance scheme

The documents within the GMP+ FSA scheme are subdivided into a number of series. The next page shows a schematic representation of the contents of the GMP+ FSA scheme:



All these documents are available via the website of GMP+ International (www.gmpplus.org).

This document is referred to as GMP+ BCN-NL2 *Dioxin-monitoring in laying hens (rearing) feeds* and is part of the GMP+ FSA scheme.

2 Background, application and certification

2.1 Background

Although there are strict product standards for poultry feeds (and raw materials) in the GMP+ FSA scheme (and legislation), it can occur that a laying hen (rearing) feed complies with the norm but nevertheless causes an infringement of the norm for dioxin in the eggs. This is mainly due to the small difference between the product standard for dioxin in laying hens (rearing) feeds and the standard for dioxin in eggs (taking account relevant transfer factors).

The Dutch egg sector wishes to avoid the chance the dioxin norm in eggs being exceeded. The Dutch feed industry has therefore requested the creation of a strict monitoring programme for laying hens (rearing) feeds. An action limit has also been agreed which is lower than the regular action limit in the GMP+ BA1 *Product Standards*. Starting from the lower action limit, all laying hens (rearing) feed producers must report to the poultry farmer so that he can implement measures.

This Country Note contains requirements for this dioxin monitoring and active reporting to the poultry farmer in the event of exceeding the action limit and rejection limit.

Guidance:
Of course is laying hens (rearing) feed not the only source of a high dioxin content in eggs. The focus of this monitoring programme however lays on the relation between dioxin in laying hens (rearing) feed and dioxin in eggs.

2.2 Scope

This Country Note contains requirements for the dioxin monitoring of laying hens (rearing) feeds.

2.3 Application

This Country Note may additionally be used alongside a GMP+ certificate with the scope of production of compound feed. GMP+ participants are not required to be additionally certified for this Country Note. If the GMP+ participant decides to be additionally certified, then the GMP+ participant must comply with the requirements specified in this Country Note.

2.4 Certification

Certification takes place per business location (like certification for other GMP+ standards). Certification in accordance with this Country Note is registered in the company database of GMP+ International and is confirmed on a GMP+ certificate.

3 Terms and definitions

See GMP+ A2 *Definitions and Abbreviations.*

4 Dioxin monitoring in laying hens (rearing) feeds

4.1 General

The participant should draw up a monitoring programme for the monitoring of dioxin and dioxin-like PCBs in laying hens (rearing) feeds. This monitoring programme must at least comply with the requirements in this Country Note.

4.2 Analysis frequency

The frequency of analysis (on a yearly basis) is calculated using the following formula

$$\text{Frequency} = \frac{\sqrt{\text{Volume}}}{100} * \text{'chance'} * \text{'seriousness'}$$

Variable	Explanation
Frequency	The number of samples to be examined (on a yearly basis) in which tests are done for dioxin and dioxin-like PCBs.
Volume	Volume in tons of laying hens (rearing) feed per year. The number of samples to be analysed is based on the quantity of laying hens (rearing) food which is produced. As the quantity of laying hens (rearing) feed increases, the number of samples to be analysed per ton is lower. To calculate the frequency of analysis it is permitted to add together the volume of laying hens feed and the laying hens rearing feed.
Chance	The standard value for chance is 1. The chance value will be periodically reviewed on the basis of analysis results. For now it is rated at 1.
Seriousness	This factor expresses the degree of harmfulness of an undesirable substance. The value of for seriousness is linked to that which is recorded in the FSD. The standard value for seriousness for dioxin is 5.

The participant should:
a. the always round off the calculated frequency upwards.
b. use a minimum frequency of 12
c. take the number of samples (where possible) scattered throughout the year.

It is permitted for participants with less than 50,000 tons of laying hens (rearing) feed per year, to meet their sampling and analysis obligations jointly in a collective monitoring plan. This plan must be approved by GMP+ International. The following requirements apply with respect to this option:
a. There must be a record of which companies participate.
b. The collective plan must comply with the requirements of this Country Note and other relevant GMP+ requirements.
c. Individual participants must use a minimum frequency of 4 (as opposed to the minimum frequency of 12 for participants who do not participate in a collective monitoring plan).

d. All the participating companies will be given all the relevant sampling and analysis results.
e. Approval of this plan (by GMP+ International) requires that participating companies no longer in theory need to be audited for this item. Naturally, the auditor will check what the participant has done with the analysis results provided.

Guidance:
Example at a production of 75,000 tons per year:

$$\textit{Analysis frequency} = \frac{\sqrt{75{,}000}}{100} * 1 * 5 = 14 \text{ analysis per year}$$

4.3 Sampling

The samples should be taken by the participant (or commissioned by the participant) in accordance with the requirements of GMP+ BA13 *Minimum Requirements for Sampling*.

4.4 Analysis

The samples taken should be analysed for dioxins and dioxin-like PCBs.

The analyses should be carried out at a laboratory that is certified (GMP+ B10 Laboratory Testing) or accredited (ISO 17025) for performing these analyses of laying hens (rearing) feed. Use should be made for the analysis of the HR-GCMS reference method.

The participant must enter into demonstrable agreements with the laboratory with respect to:
a. the shortest possible analysis time.
b. insight by the participant into the ring test reports for the ring tests (relating to dioxins and dioxin-like PCBs in laying hens (rearing) feed) where the laboratory participates in.

4.5 Analysis results

Once the analysis results have been received, the participant should assess these analysis results using the product norms from GMP+ BA1 *Product Standards*. Unlike the action limit in GMP+ BA1, the action limit for this Country Note for dioxins of 0.4 ng WHO PCDD / F-TEQ / kg laying hens (rearing) feed should be used. The rejection limit that should be used in this Country Note is similar to the rejection limit in GMP+ BA1 *Product Standards.*

In interpreting the analysis results, the participant should not take into account the measurement uncertainty. The reported analytical result is therefore normative.

If the action limit or rejection limit is exceeded, the participant should act in accordance with sections 4.6 or 4.7 respectively of this Country Note.

All analysis results should be sent to the Feed Safety Database, DOS section (Database of Undesirable Substances). GMP+ International will use these results for periodically evaluating the requirements in this Country Note.

4.6 Exceeding the action limit

If the action limit is exceeded, the participant should:

a. Inform the poultry farmer(s) within 24 hours about the fact that the action limit has been exceeded in the batch in question. In addition, the participant should state which delivery is concerned.
b. Perform a reanalysis of the laying hens (rearing) feed to confirm the first results.
c. Determine on the basis of a HACCP analysis what raw materials may have caused the increased level of dioxin and carry out an analysis on these raw materials.
d. Inform GMP+ International of the infringement of the action limit. This should be done through the form available for this.

Guidance:
The poultry farmer will then inform his customer (egg packing station) about the fact that he has received laying hens (rearing) feed with an increased level of dioxin. The egg packing station will then (risk based) take additional samples of the eggs from the poultry farm in question and will feed back these findings to the GMP+ participant.

4.7 Exceeding the rejection limit

If the rejection limit is exceeded, the participant should:

a. Comply with the requirements of the GMP+ FSA scheme with respect to non-standard products.
b. Inform the poultry farmer(s) within 24 hours about the fact that the rejection limit was exceeded in the batch in question. In addition, the participant should state how long the period during in which the farmer may have received feed with an increased level of dioxin.
c. Inform GMP+ International (in accordance with GMP+ BA5 *Minimum Requirements EWS*).
d. Inform the national authorities (if there is a legal obligation).

In addition, the participant must:

a. Perform a reanalysis of the laying hens (rearing) feed to confirm the first results.
b. Determine on the basis of a HACCP analysis what raw materials may have caused the increased level of dioxin and carry out an analysis on these raw materials.

Guidance:
The poultry farmer will then inform his customer (egg packing station) about the fact that he has received laying hens (rearing) feed with an increased level of dioxin. The egg packing station will then (risk based) take additional samples of the eggs from the poultry farm in question and will feed back these findings to the

GMP+ participant.