

Code of Practice For the Control of Salmonella in Oilseed Crushing Plants

Introduction

Salmonella are widespread in the environment and each link in the food chain, from the producers up to and including the consumers has a role to play in reducing the risk of humans getting infected by **Salmonella**. Animal feedingstuffs are acknowledged to be one possible route by which **Salmonella** can enter the food chain. Therefore, all links of the feed chain have to reduce to a minimum the occurrence of **Salmonella** in their products.

The EU oilseed crushing industry has already made strenuous efforts, through voluntary measures, to reduce the contamination rates of the feed materials produced by their plants. Substantial progress has been made since the introduction of the FEDIOL GMP code for the seed crushing industry in 1993.

Purpose

The purpose of this FEDIOL code is to provide guidelines for establishing good manufacturing practices for seed crushing plants to minimise the risk of **Salmonella** contamination of their feed materials. Experience and evidence suggest that zero **Salmonella** is impossible to prove. Therefore, FEDIOL members should not sell feed materials with a guarantee that it is totally free from **Salmonella**.

Scope of the code

The scope of this code is the processing of oilseeds from intake of the raw materials to the loading of the feed materials for transportation to the customers. In most cases, the means of transport are supplied for by the customer. Transport is therefore not included in this code.

Implementation

All FEDIOL members shall apply this code and be prepared to demonstrate their compliance.

Feed Safety Management

The Feed Safety Management System should identify the risks, and implement critical control points, prerequisite programmes, monitoring and corrective measures in case of non-conformities.

Incoming raw materials for crushing are not guaranteed to be **Salmonella** free but, by their nature, they are stable and not subject to quick microbiological deterioration.

In the crushing process, raw materials are exposed to heat/time treatments (desolventising-toaster) resulting in a considerable decrease of the microbial load. The risk of **Salmonella** contamination is therefore limited to processes downstream of this heat treatment.

Prerequisite Programmes

By experience, the most important prerequisite programmes for reducing growth possibilities for **Salmonella** in a crushing plant are:

Production:

- Dust Extractors/Collectors and Coolers should be cleaned regularly and condensation should be prevented where possible.
- Dust from manual cleaning, maintenance and overhaul of equipment such as extractors, cyclones and filters, must not re-enter the finished meal stream.
- Maintenance should take place not only for mechanical but also for hygienic purposes.

- Plant maintenance should not increase microbiological contamination or improve growth conditions
- New plant equipment should be designed hygienically

Storage:

- Storage facilities must be adequate to allow storage of goods in a clean, dry condition.
- Storage facilities should be properly ventilated to prevent moisture concentration through condensation.
- Storage facilities should be designed and maintained to protect against the entrance and harbourage of rodents, birds and other animals.

Personnel:

- All personnel should receive training to ensure they are aware of potential microbiological contamination and growth during processing, material handling, storage and maintenance.
- All personnel should be aware of the importance of environmental and personal hygiene.
- All personnel should wear appropriate clothing.

The above are in addition to, and in no way preclude compliance with, existing health and safety requirements or legislation.

Salmonella monitoring

Fediol has introduced a sectoral Salmonella data collection program with the following requirements:

- Adequate facilities and trained staff must be available for sampling.
- Samples should be taken for each type of finished product at point of loading at least once a week.
- Samples should be serotyped in case of a positive.
- Data should be submitted to FEDIOL in the framework of the sectoral Salmonella data collection programme.
- Samples should also be taken regularly to validate the above prerequisite programmes.

Analytical procedures:

- Samples of 25 g must be tested without delay according to ISO method 6579 or an equivalent method.
- Analyses can be done by own or external qualified laboratories, but for the FEDIOL data collection programme, the analysis must be done by an external ISO 6579 accredited laboratory.

Records:

Records should be kept of:

- Samples taken (identification and date)
- Any isolation or serotype
- Any corrective action taken.

Records should be kept for at least one year.

Corrective measures

In case of a positive Salmonella finding, a line sampling plan should identify the point of contamination (screening).

Corrective measures should be taken based on the results of the screening process.

This code of practice shall be implemented by all FEDIOL members no later than June 1, 2009 and it replaces all former versions.