

(10) PR 10
01.06.2011

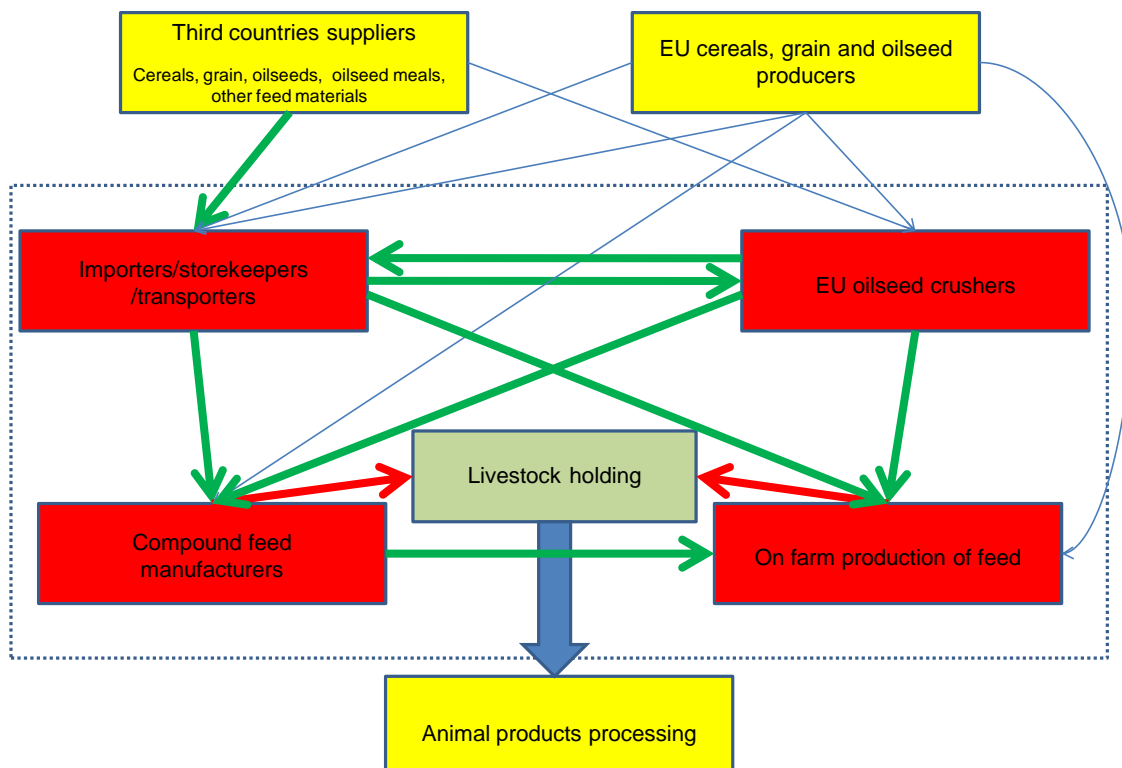
COMMON SET OF PRINCIPLES FOR THE MANAGEMENT OF THE SALMONELLA RISK IN THE FEED CHAIN

1 Introduction

The following principles for the management of the Salmonella risk in the feed chain have been drafted by COCERAL, COPA-COGECA, FEDIOL and FEFAC as regards the subsectors of the chain that they represent. Any reference to feed chain in this document shall be understood as reference to primary production of feed, oilseed crushing, trade and compound feed manufacturing. The relevance of the following common set of principles for other operators of the feed chain has not been checked yet.

These principles are consistent with the requirements of the Feed Hygiene Regulation (EC) No 1831/2005 and are complementary to the existing voluntary guides to good hygiene practice developed by the four organizations for the implementation of this Regulation. The objective of the four organizations is to bring these principles in amended versions of their respective sector guides to good hygiene practice and submit the latter to the Standing Committee on the Food Chain and Animal Health (SCFCAH) for endorsement in accordance with article 20 of Regulation (EC) No 1831/2005.

The boundaries and interconnections between the activities performed by the four subsectors can be illustrated by the chart below:



The objective is to minimize the Salmonella contamination all along the feed supply chain, whatever the serotypes.

Feed Hygiene Regulation (EC) No 1831/2003 establishes in its article 5 a distinction between feed business operators undertaking primary production of feed, including on farm mixing of feed without using additives or premixtures of additives, and other types of operations. The practical consequences of this distinction, i.e. implementation of HACCP and compliance with Annex II as regards operations other than primary production and compliance with Annex I for primary production of feed is legally applicable to any risk attached to feed production, handling, processing, storage and distribution of feed. Thus, chapter 3.3 of the draft principles (compound feed manufacturing) applies to all operations of compound feed manufacturing falling under the scope of article 5.2 of feed hygiene regulation, whether industrial or on-farm production.

2 General approach of microbiological risk management along the feed chain:

Every feed business operator shall have and implement a quality management system that creates a common approach to minimize the Salmonella contamination all along the feed supply chain. This includes preventive actions, monitoring and/or verification plans and corrective action to minimise Salmonella contamination and re-contamination within the scope of responsibility of each operator of the feed supply chain having regard to the specificities of categories of feed business operators as laid down in the subsequent sectorial sections.

For feed business operators falling under the scope of article 5.2, this means

- Implementing pre-requisite programs (PRPs) aimed at prevention of Salmonella entering the products flows as mentioned in the relevant European Guides to good practices.
- Controlling processes, especially related to prevention of growth and to reduction of Salmonella in the heating or disinfection steps.
- Controlling the Salmonella status of the premises via a monitoring programme targeted at predefined areas and equipment, focusing where relevant on areas after the heating or disinfection steps, where re-contamination or growth can take place.
- Preserving processed feed from contamination during processing, collection, storage, trading and transport, e.g. by closed systems, hygiene practices, or by separating the premises into hygienic zones as appropriate.

In order to achieve this, article 5.2 feed business operator shall in the first place:

- Define control points in the process, based on risk assessment;
- Establish the Salmonella status in the feed business via a monitoring programme at predefined areas/equipment. The purpose of the monitoring plan is to verify that the processes are sufficiently controlled and to check for the presence of Salmonella; a further serotyping can be performed, with often a special focus on some pathogenic Salmonella traits such as "S. Enteritidis, S. Typhimurium, S. Hadar, S. Virchow and S. Infantis.
- Set a realistic target for improvement based on the continuously updated Salmonella status of the feed business operator;
- Repeat the sampling routinely to monitor the performance against the target, the frequency of sampling to be based on the risk assessment of the process performed and the products handled in the premises.
- Regularly review the monitoring programme on the basis of the findings (i.e. the Salmonella status), the information collected from feed chain partners and the targets for improvement.

Along the supply chain, article 5.1 and 5.2 feed business operators shall have measures in place to minimise and if possible avoid the risk of introduction of Salmonella to their establishment from incoming materials. This means:

- The business operators responsible for transport shall ensure that transport is undertaken in good hygienic conditions, e.g. the transporter should have undergone a risk assessment and developed a hygiene plan.
- Ensuring that incoming feed comes from assured sources (e.g: through screening / evaluation of suppliers based on Salmonella risk management procedures in place at supplier level prior to approval by purchaser of a new supplier and thereafter on a continuous basis);
- In the absence of such guarantees (e.g: when no such evaluation / screening is applied or if the outcome of this reveals the absence of appropriate measure at supplier's level), making available, on request of the purchaser, the results of monitoring and data on feed, when performed by the supplier, or guarantees that appropriate hygiene or guarantees that good hygiene practices/risk based procedures have been followed in the case of feed coming from/originating from on farm production.
- In the light of the above, monitoring the Salmonella status of incoming materials if the supplier neither applies adequate process control measures nor monitors final feed Salmonella status.
- A further serotyping can be performed, with often a special focus on some pathogenic Salmonella traits such as "S. Enteritidis, S. Typhimurium, S. Hadar, S. Virchow and S. Infantis.

The use of check lists, as incorporated in sector guides to good hygiene practice, can provide further guidance to operators in order to implement the present principles.

In order to ensure an appropriate transfer of information throughout the chain, feed business operators should strive to make available, at customer request, relevant microbiological information.

3 Defining prevention measures, control points in the process, monitoring and corrective actions

3.1 Collection, storage, trading and transport - (European Good Hygiene Practices Guide for the collection, storage, trading and transport of cereals, oilseeds and protein crops)

PRPs such as Good Hygiene Practices (GHP) and Good Managing Practices (GMP), for the Hazard Analysis shall be effectively implemented by the business operators on their daily operations, at the level of imports, storage, handling and transport of feed materials in order to avoid contamination and/or recontamination of feed by *Salmonella* spp. These practices shall be in compliance with Regulation 183/2005 laying down requirements for feed hygiene.

- The European Good Hygiene Practices guide for the collection, storage, trading and transport of cereals, oilseeds and protein crops developed by COCERAL and COGECA sets out specific recommendations to prevent the risk of biological, chemical and physical contamination of feed materials identified in the Risks analysis. The use of the guide is voluntary.
- The European legal framework on feed hygiene is often supplemented by national legislation, national guidelines of good practices, national pre-requisites programs and/or agreements with the suppliers of the goods.

3.1.1 Prevention measures

Preventive measures shall be developed in compliance with the safety rules defined by the operators. The staff dealing with the operations shall be trained and kept regularly informed as regards cleaning and hygiene procedures as per recommendation of COCERAL and COGECA Good Hygiene Practices guide.

3.1.1.1 Collection and receipt

- The immediate surroundings of the buildings shall be maintained free from waste, stagnant water, pests, etc.
- The supplier shall ensure that, during the upward steps of the supply chain, the GHP requirements have been respected.
- At the reception of the goods controls and inspections of the delivered batch shall be performed usually according to the monitoring plans based on the Risk Analysis made on the processes under our control.

3.1.1.2 Storage

- The storage facilities, i.e. the storage and handling premises and equipments, shall be structured in such a way to prevent the contamination from rodents, birds, wastes, humans etc.
- The layout of the storage and handling facilities shall be designed in order to prevent as much as possible any cross contamination of the feed materials with undesirable substances or contaminants such as pesticides, fertilizers, seeds, and potential microbiological hazards.

- Maintenance, cleaning, inspection and control of storage and handling facilities, premises and equipments, shall be performed on a regular basis. In particular it is required that the premises are clean, dry and provided by adequate ventilation and light.
- Preventive pest measures shall be ensured in order to avoid the proliferation of animals as insects, birds and rodents in the store facilities. Effective pest and insect control shall be performed.
- Waste storage shall be located in a place separated from the feed materials storage facilities.

3.1.1.3 Dispatch/delivery and transport

- During transport operations the feed safety shall be maintained and any contamination shall be prevented.
- Before the loading of the feed materials the load compartments of the means of transport shall be inspected in order to avoid any contamination with previously loaded cargoes and adequate cleaning and/or disinfection of the load compartments may be done according to the existing procedures whenever applicable.

3.1.2 Monitoring and verification measures

In order to monitor the occurrence of Salmonella in feed materials, the control and monitoring system shall be designed on the basis of the risk analysis principles mentioned in Regulation (EC) 1831/2003. Monitoring points shall be set up at the stages of the chain where risk of Salmonella contamination is identified and prerequisite programs shall be applied in other steps.

Collection, storage, trading and transport are steps where risks of Salmonella contamination can be identified.

- A monitoring program shall be established in order to verify contamination during the storage, the handling and/or transportation activities, at receipt and/or delivery steps of the feed materials.
- Such programs aim at detecting the presence or the absence of Salmonella sub species (ssp) in incoming feed materials. In case a sample tests positive for Salmonella, adequate measures shall be performed according to the specific situation and to the level of risk identified. A further serotyping can be performed, with often a special focus on some pathogenic Salmonella traits such as “S. Enteritidis, S. Typhimurium, S. Hadar, S. Virchow and S Infantis.”

3.1.3 Corrective actions

The corrective actions to be taken following the detection of Salmonella will depend on the step of the chain where it has been detected and on the level of risk identified. Research on the origin of the contamination, based on traceability rules, as well as adequate cleaning/disinfection, labeling and/or adequate communication is usually performed, in accordance with existing local procedures and rules.

3.2 Oil seed crushing (European Guide to good practice for the industrial manufacturing of safe feed materials – FEDIOL sector reference document)

3.2.1 Prevention

3.2.1.1 Prerequisite Programs (PRPs)

PRPs shall be implemented to avoid contamination of the premises via sources such as rodents, birds, waste materials, personnel movements etc. The installation and equipment shall be designed in such a way as to facilitate cleaning and to avoid growth of Salmonella. Such good PRPs are already defined in the annexes of Regulation (EC) No 1831/2003 and are complemented by guides to good practice.

3.2.2 Control points in the processes

Control points (CP) shall be defined based on documented risk assessment according to the HACCP principles. The risk assessment for Salmonella shall concentrate on the points in the process where reduction of Salmonella is achieved and thereafter where re-contamination and growth of Salmonella can be prevented.

Incoming materials for crushing are not guaranteed to be Salmonella free. In the crushing process, those incoming materials are exposed to heat treatments during a certain time (desolventiser- toaster), resulting in a considerable decrease of the microbiological load. The risk of Salmonella contamination is therefore limited to processes downstream of this treatment.

Typical control points in oilseed crushing production plant are:

- Time and temperature control during heat treatment in the desolventiser- toaster that reduces Salmonella to acceptable levels. The control focuses on controlling the temperature, calibration of the measuring equipment and documenting the results.
- Moisture control of the finished feed material.

Finished feed materials are delivered to customers with a certain maximum moisture level, as agreed in specifications.

Controls are based on regular or continuous and documented measurement of moisture content in the finished feed materials, with calibrated equipment.

- Chemical treatment

Chemical treatment aims at reducing Salmonella in the feed material to acceptable levels. Controls are based on records of quantities of chemical substances used.

3.2.3 Monitoring / Verification

For oil crushers, a monitoring plan for Salmonella in incoming materials is not relevant as these materials may have been contaminated with Salmonella during cultivation in the fields (see 4.3.1).

The Salmonella monitoring should start immediately after the heating step that is happening in the desolventizer- toaster. Earlier in the process does not add value as Salmonella may be present due to the nature of the raw materials.

The line monitoring will be more effective when the samples are taken of the whole line, from the heating step up to the finished product.

Serotyping can be useful for traceability purpose.

3.2.3.1 Processing equipment

Samples are taken from product and product deposit after the heating step, e.g. from equipment, cyclones, conveyors, silo's, based on risk assessment, previous results and type of process.

3.2.3.2 Finished feed materials

Finished feed materials are monitored based on risk assessment, previous monitoring results, customer complaints and type of process.

3.2.4 Corrective actions

3.2.4.1 Process control

- When processing limits are exceeded, the following actions shall be considered
 - Review processing limits, e.g. from the decontamination process (heat treatment);
 - Review calibration status
 - Review relevant pre-requisite programs
 - Consider additional cleaning of plant and equipment after the control point/critical control point;
 - Consider additional training or changes in process or procedures

3.2.4.2 Finished products

- If Salmonella is found in the finished feed material, the following actions shall be considered:
 - Carry out traceability to identify the source of contamination;
 - Review processing conditions and relevant pre-requisite programs
 - Additional cleaning of storage and vehicles (where appropriate);
 - Additional cleaning of plant and equipment;
 - Review previous monitoring results
 - Consider additional training or changes in process or procedures

3.3 Compound feed manufacturing (European Feed Manufacturers Guide)

3.3.1 Prevention

3.3.1.1 Prerequisite Programs (PRPs)

PRPs shall be implemented to avoid contamination of the premises via sources such as rodents, birds, waste materials, personnel movements etc. The installation and equipment shall be designed in such a way as to facilitate cleaning and to avoid growth of Salmonella. Such good PRPs are already defined in the annexes of Regulation (EC) No 1831/2003 and are complemented by guides to good practice.

3.3.2 Defining control points at feed compounder level

If a CCP is defined in a feed mill, preserving processed product from contamination by separating the premises into unclean area (prior to CCP in process) and clean area (after the CCP in process).

Control points (CP) shall be defined in relation to the Salmonella risk. Companies may identify one or several CPs. If a CCP is identified, no control point is needed before that CCP unless they are needed to secure the functionality of the CCP. Microbiological objectives may be different depending on animal species. Similarly, CPs may differ depending on the type of feed being produced; (e.g. meal vs. pellets).

Typical control points in a compound feed mill are:

- Analytical control at reception of incoming feed materials and premixtures: where there is no CCP further on in the process, the salmonella risk management objective is to monitor Salmonella entering the feed mill. In some instances incoming feed is rejected or treated before being accepted in the feed mill or action taken to change the supplier. Analytical control of incoming feed shall focus on those at-risk. Such a control point is not easy to handle, because of the time required before analytical results are known, in particular serotypes. If there is a CCP further on in the process, analytical control at reception of incoming feed serves a screening / suppliers evaluation and improvement purpose.
- Heat treatment / pelleting: at-risk feed materials or compound feeds may be subject to heat treatment that reduces/controls Salmonella. The control focuses on heat treatment parameters (time/temperature/moisture) or microbiologically defined objectives; in the latter case this point may serve as a CCP.
- Chemical treatment: this process aims at inhibiting/controlling Salmonella. Controls are based on records of quantities of chemical substances used. Such chemical treatment is mostly used on feed materials but may also be used for compound feed.
- If a CCP is defined, analytical control of samples of deposition of dust within processing equipment from CCP and onwards in the process (i.e. inside coolers, conveying systems, final feed silos and transport vehicles).

Analytical control of samples of final feed alone is not adequate to measure the efficiency of the CPs and CCPs within the process, but serves as a verification tool.

3.3.3 Monitoring / Verification

A monitoring plan for Salmonella shall be established by feed compounders, for incoming materials focusing on those of higher risk. A further serotyping can be performed, with often a

special focus on some pathogenic Salmonella traits such as “S. Enteritidis, S. Typhimurium, S. Hadar, S. Virchow and S Infantis.

A Salmonella monitoring plan shall be established to identify possible contamination during the process and help understanding the reason for contamination in the process. This monitoring plan is based on risk assessment and is redefined when needed based on results of previous monitoring plans or process changes.

Whenever a control point (CP) is defined, the monitoring plan shall focus on it. Sampling at subsequent points in the process will verify the effectiveness of the CP. The monitoring plan should focus on the processing equipment and if applicable, the environment.

The Salmonella monitoring results will be used to verify whether the HACCP plan, including all process control points, pre-requisite programs and corrective actions taken are effective in controlling Salmonella.

3.3.3.1 Incoming feed

If there is no control step further on in the process, feed materials, premixture and additive deliveries – the frequency should be based on high, medium and low risk – composite samples are acceptable by incoming feed type. Consider whether the data is already available from the supplier.

3.3.3.2 Buildings

Samples from ledges, walls and floors – either dust or swab samples - samples from dust units and vacuum cleaners may be included.

3.3.3.3 Plant and equipment

Loading equipment, elevators, conveyors, dust filters, intake and loading areas in stores – either dust or swab samples.

Intake, grinding, weighing, hand addition, mixing, pelleting, cooling, conveying and packing areas in manufacturing plants as appropriate to process type and risk – either dust, feed or swab samples.

3.3.3.4 Storage areas

Storage bay walls and floors – dust or swab samples.

Storage bin tops (inside and outside) and outloading areas – dust or swab samples.

3.3.3.5 Finished feed

Finished feed by feed or process type – composite samples are acceptable – frequency based on high, medium and low risk

3.3.3.6 Vehicles

Sheets, covers, internal bodies, rear door or hatch and blower units of bulk vehicles – dust or swab samples

Buckets and vehicle bodies of loading shovels – dust or swab samples

Any findings of Salmonella should be further investigated, particularly if the same serovar is repeatedly found in cooler areas, pellet shakers or dust aspiration.

3.3.4 Corrective actions

The action to be taken following the isolation of Salmonella will depend on the circumstances of the isolation, the serotype and the existence of CP/CCPs in the process. The following shall be considered:

3.3.4.1 Incoming material:

- If reception is a control point, the following actions shall be considered:
 - Restricted use if there is no CCP further on in the process; or
 - Decontamination of feed materials;
 - Handling in agreement with the supplier (where appropriate).
- Otherwise
 - Clean and flush intake, routes and storage;
 - Vehicle cleaning (whether own vehicles or third party);
 - Consider additional cleaning of plant and equipment; and
 - Review of test frequency and test results on incoming feed.

3.3.4.2 Processing equipment:

- If a control point is identified in the manufacturing process, the following actions shall be considered
 - Review of parameters of the decontamination process (heat treatment); and
 - Consider additional cleaning of plant and equipment after the CP/CCP;
 - Consider additional training or changes in process or procedures
- Otherwise
 - Cleaning of plant and equipment
 - Controls of rodents in case of repeated contamination that cannot be related to incoming feed

3.3.4.3 Finished products:

- Carry out traceability to identify the source of contamination;
- Review processing conditions and relevant pre-requisite programs
- Review previous monitoring results;
- Additional cleaning of storage and vehicles (where appropriate);
- Additional cleaning of plant and equipment;
- Review of test frequency and test result on finished feed;
- Introduction of corrective and preventive actions;
- Information of the customer if relevant;
- Handling in agreement with the customer (where appropriate);
- Consider additional training or changes in process or procedures.

3.4 Primary production of feed and feeding animals (Community Guide to Good Hygiene Practice (CGHP) for primary production of feed and animal feeding)

Feed business operators involved in primary production of feed (including on farm-mixing, except when using additives and/or premixtures products) and/or the feeding of animals must follow basic hygiene procedures and apply a risk-based approach so as to safeguard the microbial quality of feed.

Good agricultural practices and good manufacturing practices must be followed to achieve and maintain a high level of feed safety. The Community Guide to Good Hygiene Practice for the use of animal feed in primary production which has been developed by Copa-Cogeca contains recommendations of good practice to help farmers comply with the requirements of the Feed Hygiene Regulation (EC) No 183/2005. The use of the guide is voluntary and may be supplemented by national legislation and/or national guides, wherever appropriate. This guide shall be considered in conjunction with additional provisions laid down in guides to good hygiene practices for animal products and livestock farming developed by COPA-COGECA, where relevant in cooperation with other organizations (e.g. the European Poultry meat industry guide (developed jointly by AVEC and Copa-Cogeca organizations or the Community guide for good hygiene practices in pullet rearing and egg laying flocks as developed by Copa-Cogeca).

3.4.1 Prevention measures:

3.4.1.1 Premises, equipment, machinery and personnel

a. Farmers shall pay attention to the immediate surroundings of the buildings and control the potential “external” sources of contamination. Buildings and facilities should be regularly inspected.

b. The premises shall be designed in such manner so as to reduce the risk of vermin and wild birds gaining entry.

Farmers are also advised to pay attention to pest control.

c. Facilities and premises used for producing, loading unloading and/or storing feed shall be separate from areas used to house animals or store their waste or store any other potential contaminants. In case the separation between these different premises/buildings proves unpractical, “physical” separation of activities shall at least be ensured.

d. Storage areas, equipment and machinery should be regularly cleaned (and if necessary disinfected).

For that purpose, premises, equipment and machinery in contact with feed should be maintained in dry condition whenever possible and kept clean from manure.

The farmer or the contractor performing the cleaning shall be trained and have adequate equipment and material for cleaning and disinfection.

e. Measures to prevent possible contamination from workers/ in contact with animals and feed shall be in place (e.g: adequate access to washing facilities for personnel to sanitise their hands, footwear and if necessary clothing before entering the premises, regular cleaning of cloakroom and toilet facilities clear policies on smoking and drinking on site,...). Where appropriate, this should also include training measures on safety practices and adequate information on major risks of contamination.

3.4.1.2 Production and storage of feed:

A number of precautionary measures are to be taken in order to maintain feed products under required storage conditions.

a. Storage areas for dry feed shall enable goods to be maintained in a clean, dry and orderly condition.

For that purpose, storage areas and stores clamps must have sufficient drainage.

b. Effective measures must be in place so as to control the possible contamination arising from livestock activities.

In particular, farmers must ensure that livestock buildings do not drain onto the production or storage facilities or onto their access: removal of waste water must be kept away from feed storage and feed storage areas and precautionary measures should be taken when spreading manure so as to avoid the contamination of surface waters.

If the areas used for production, loading or unloading of feed cannot be kept separate from the facilities dedicated to livestock activities, the buildings used to house animals or store their waste must have been thoroughly cleaned to remove all organic material and dried prior to storing feed.

3.4.1.3 In coming feed materials:

The supplier is legally responsible for ensuring the safety of the feed that is delivered to the farmer. The farmer shall also seek for guarantees that appropriate measures are taken at supplier level so as to minimize the risks of contamination

a. Firstly, farmers must only purchase feed from registered or approved suppliers in accordance with Reg. EC 1831/2003.

b. On delivery, farmers should also check that the feed or feed ingredients delivered conform to order and that the relevant paperwork is correct. Visual indicators (e.g. split bags and mould) may provide information on potential contamination. This should be immediately reported to the supplier who will formulate a course of action with the farmer.

c. If the farmer believes that the feed delivered does not satisfy appropriate feed safety criteria, he should ask for additional information data from its supplier (e.g. results of monitoring and controls on Salmonella at process or product level which may have been performed).

d. In the absence of sufficient guarantees from its supplier, the farmer would still have the option to refuse the product. If he does accept the product, he shall then carry out appropriate sampling tests so as to check the salmonella status of incoming product.

Farmers must retain the delivery notes so that traceability of all feed can be demonstrated.

3.4.1.4: Feeding animals:

a. Feeding and bedding areas should be kept cleaned from contaminants. .

b. Livestock shall have access to clean water suitable for animal consumption: for that purpose, it is required to observe application rates and minimum distance requirements when using slurry or manure near source of water.

c. After spreading manure, sufficient period of time needs to be respected before grazing.

3.4.2: Monitoring/verification measures:

a. Sampling/monitoring measures are to be considered in the light of relevant European legislation on the control of Salmonella (Reg. No 2160/2003) and of national official or officially recognized programs for the control and monitoring of Salmonella in animal populations and the environment (these measures may also be supplemented by EU and/or national voluntary guides). In addition to official samples taken as part of national monitoring programs, farmers should also consider taking additional samples in order to check the status of the feed that is distributed to animals (feed produced and purchased feed), in particular in the following cases:

If involved in on farm mixing activities, farmers should take and retain representative samples of both the dry feed ingredients and the finished feed whenever the batches of ingredients or formulations are changed. These samples should be stored under conditions that prevent abnormal change in the composition of the sample or adulteration and should be labeled to clearly show the type of feed and the date they were taken.

Whenever buying feed, the farmer is expected to take appropriate sample measures in the absence of guarantees from its supplier of the safety of the product delivered. (see 3.4.1.3 for more details).

b. The farmer should also ensure that record-keeping systems are in place on farm.

Farmers should notably keep records of the information listed below in an accessible place:

- The names and addresses of the suppliers of all raw materials and other feed ingredients.
- Any detailed salmonella control applied by the supplier and any microbial monitoring results received from the supplier, in case the farmer requests any additional information from him
- Details of where feedingstuffs were stored.
- Detailed feed formulations of all mixes produced on the farm together with the date that each formulation started and ceased to be used.
- Records providing details of the feed that was produced and when.
- The batch number, where one exists.
- Where appropriate, the complementary feedstuff or mineral feedstuff used, how much was used, into which feedstuff it was incorporated and the date that it was used.
- The use of pesticides and biocides, including name of product, date purchased, date used and on which surfaces of which equipment/facility.

- The use of plant protection products (herbicides, fungicides and pesticides) on all growing or stored crops (including grass and forage crops) used for animal feed.
- The use of genetically modified (GM) seeds, including the variety and amount of any GM seeds bought and planted for feed crops.
- Any occurrence of pests or diseases that may affect the safety of primary products.
- The results of any analysis carried out on samples taken from primary products or other samples taken for diagnostic purposes that have importance for feed safety.
- Any additional documentation that demonstrates that specific hazards have been addressed.

3.4.3 Corrective actions:

Good traceability controls are essential to trace any potential source of contamination.

In case any source of contamination has been identified at farm, concrete decontamination measures shall be in place.

If feed contamination is confirmed in bought-in feed, farmers should discuss arrangements with the supplier and inform any other businesses with which they share a relevant contractual relationship.

If contamination is detected in home produced feed, farmers should try to identify the source of the contamination and clean storage, handling and mixing areas.

Isolations of salmonella should be reported to the appropriate body for the national authority.

4 Responsibility

Each feed business operator is responsible for the safety of the feed it places on the market, in relation to feed safety objectives laid down in EU or, by default, national law.