# An EU feed and food chain reflection on mycotoxin risk management

Safety of consumers is of utmost importance for the farmers and operators of the feed and food chain that we represent and who share the view that it is necessary to do their best to reduce the presence of mycotoxins in food and feed.

Our European associations therefore acknowledge the importance of the work that the Commission is carrying out in reviewing measures for the management of the mycotoxin risk in the feed and food chain, based on the updated risk assessments performed by EFSA. Discussions at the Standing Committee on Plants, Animals, Food and Feed on legislative proposals on some key mycotoxins started two years ago. Since then, the Green Deal established new policy objectives and we believe that it is necessary to have a general reflection to ensure consistency of the EU mycotoxin risk management approach with the Green Deal objectives. As a contribution to the ongoing discussions on risk management measures, our organisations would like to report on how the risk of mycotoxins is managed at present in the food and feed chain and share our views on how risk management should be optimised to continue guaranteeing safety, quality and food and feed security.

#### A complex issue to manage

There are many parameters that impact the presence of multiple mycotoxins on the field and not all of these parameters can be controlled or mitigated by farmers. The occurrence of mycotoxins is driven by agronomic conditions such as weather and soil status. For example, the geographic occurrence of certain mycotoxins is changing due to climate change<sup>1</sup>. Levels of mycotoxins also significantly vary year-to-year and region-to-region. Mycotoxins are therefore very weather dependent and can develop very close to harvest. Thus, doing early risk analysis and forecasting before harvest is only one tool contributing to the management of mycotoxins, but it is not sufficient in itself and requires complementary tools such as innovative crop protection solutions.

To add to this complexity, the feed and food chain must deal with an increasing number of currently regulated mycotoxins. With technological progress, it is now possible to analyse more mycotoxins and different forms of mycotoxins and consequently requirements are increasing to manage these too.

In some cases, the mitigation measures towards different agriculture contaminants (e.g. mycotoxins, ergots, plant toxins and other harmful botanical impurities) may conflict each other. The importance of key measures, such as the management of field margins and adjacent grass to avoid contamination of crop from weeds, should

<sup>&</sup>lt;sup>1</sup> EFSA (2020). Climate change as a driver of emerging risks for food and feed safety, plant, animal health and nutritional quality. EFSA supporting publication 2020:EN-1881. 146pp. doi:10.2903/sp.efsa.2020.EN-1881

not be underestimated. On the other hand, these may contradict measures to improve biodiversity and promote pollinator populations.

In addition, the feed and food supply chains are dealing with a wide array of environmental and agricultural contaminants. The more maximum limits are set, the higher is the risk that a consignment does not comply with at least one of the various contaminants. This will increasingly reduce the proportion of crops available for food and feed, in particular in years of weather conditions which favour fungal growth and mycotoxin production.

Other factors hindering an effective management of mycotoxins are their uneven distribution in consignments, analytical constraints (time for results, cost of analysis, lack of accurate rapid screening tests) and the dynamic nature of global feed and food supply chains, with different risk management approaches in different countries. Not to be overlooked is the fact that a rapid screening test can never be as precise as a full evaluation using instrumental analytic methods. In contrast to this, the processing of grains is a continuous process that goes on 24/7 and depends on reliable rapid tests.

Feed and food business operators need some flexibility to get access to sufficient raw materials and make the best use of available resources. This becomes increasingly complicated as the regulatory measures become more complex and restrictive, considering the limited risk management solutions available to operators to prevent mycotoxin formation and to handle contaminated consignments.

#### The EU Green Deal

Foremost, our members play a pivotal role in society's objective for more sustainable food and feed systems. We therefore support the aspiration of the Commission through the EU Farm to Fork and Biodiversity Strategies as part of the Green Deal. Nevertheless, we question how some of the objectives put forward in these strategies align and correlate with well stablished good agricultural practices for the control of toxin producing fungi laid down in EU Commission Recommendation 2006/583/EC<sup>2</sup>. The ability to implement effective mycotoxin mitigation practices will be impacted by the reduction of plant protection product uses and the ecological compensation areas (hedgerows, fields margins and buffer strips). These will consequently also lead to a more difficult fungi and weed control and the presence of toxins within harvested crops. We are concerned that the Green Deal might fail in proposing a varied selection of solutions to reverse the trend of increasing mycotoxin load in grains.

Thus, we urge the Commission to carry out impact assessments to ensure that food and feed security, safety (including occurrence of mycotoxins), quality and sustainability are not compromised when working towards the objectives of the Green Deal. A structured dialogue is needed with stakeholders to identify and address cross-cutting challenges and trade-offs.

<sup>&</sup>lt;sup>2</sup> <u>Commission Recommendation of 17 August 2006 on the prevention and reduction of</u> <u>Fusarium toxins in cereals and cereal products (2006/583/EC)</u>

#### Towards an optimised mycotoxin risk management approach

Our members are committed to working together and with authorities on the risk management of mycotoxins in the food chain, starting at the farm level. Firstly, by reducing fungal contamination and mycotoxin production. Second, by an optimised management of contaminated crops including processing, and lastly, by the use of trading standards.

#### 1. Prevention and control of contamination

To reverse the trend of increasing occurrence of mycotoxins and enable the continuity of crops, farmers not only need to apply the agronomic practices outlined in EU Commission Recommendation 2006/583/EC and several codes of practices drafted in Member States, but need a set of technological tools such as:

- Locally predictive agronomic models that incorporate multiple parameters (including weather forecast and monitoring) allowing for a targeted action.
  - Once the need for action is identified, it is essential to have available:
    - crop protection tools (e.g. fungicidal and selective herbicidal treatments);
    - improved tools used for crop monitoring, analysis and supply chain tracking;
    - improved tools available for sorting and cleaning.
- To better control pathogens (and weeds), farmers need updated varieties of crops that are more pest, disease, and drought resistant (including, but not limited to, those generated through new plant breeding techniques).
- Precision farming tools.
- Integrated pest management (IPM) strategies specifically for fungal diseases. Some examples are the use of certified cereal seeds, the use of tolerant varieties against Fusarium, to avoid growing maize before other cereals or, after growing maize, crush maize residues and till the soil before sowing wheat.

An EU policy favourable to the emergence of innovative solutions in the above areas is critical and requires support towards R&I and digitalisation of the agriculture sector.

Post-harvest, mycotoxin contamination may also occur during storage. Likewise, operators have worked out Codes of good storage practices (Coceral, Copa-Cogeca, Unistock Guide to Good Hygiene Practices<sup>3</sup>, HGCA Grain storage guide<sup>4</sup>). Like for farmers, a prerequisite is the availability of tools to control fungi. Freshly harvested cereals are dried immediately, if needed, in such manner that damage to the grain is minimized and moisture levels are lower than those needed for fungal growth during storage.

<sup>&</sup>lt;sup>3</sup> Coceral, Copa-Cogeca, Unistock (2015). <u>European Guide to Good Hygiene Practices for the</u> <u>collection, storage, trading and transport of cereals, oilseeds, protein crops, other plant</u> <u>products and products derived thereof.</u>

<sup>&</sup>lt;sup>4</sup> HGCA Grain storage guide for cereals and oilseeds (3<sup>rd</sup> Edition).

#### 2. Optimised management of contaminated crops

After a crop is contaminated, an efficient risk management strategy along the chain supposes:

- Predicting the likelihood of contamination, through an early risk analysis
- Controlling, at the earliest stage possible (top-of-the-pyramid), with a withdrawal from the food and feed market of highly contaminated consignments
- Informing, through early warning systems or consignment specific information, for example when a consignment of grain for feed use exceeds the limits for food use.

As sectors of the food and feed chain, we continue to conduct research and develop Sectorial Codes of Good Practices that include provisions to deal with contaminants, including mycotoxins (e.g. Good Hygiene Practice, Good Trading Practice, Good Manufacturing Practice, HACCP, ISO 22000, etc). Furthermore, recommendations for optimised management along the chain were drafted and disseminated in certain countries, such as the Intercéréales Mycotoxin Guide<sup>5</sup>. However, we need the support of all stakeholders in enhancing vigilance and controls for mycotoxins, including the EU authorities.

## A Europe-wide mycotoxins risk management policy should encompass all options to allow operators to minimise the risk for human and animal health.

In addition, other risk management options to reduce the mycotoxin contamination load are implemented at different levels of the chain:

- Sorting and cleaning methods can be utilized to clean the grain. However, it is important that the grain is not damaged during the procedure.
- Drying to reduce the food and feed materials' water content and prepare them for subsequent good storage.
- Dilution currently permitted only for consignments destined to feed use for mycotoxins subject to guidance values.
- Detoxification for use in feed (although too costly)
- Use of mycotoxin binders in feed (scope limited because it requires a feed additives authorisation and it may be used only in feed whose level of mycotoxin is below the legal limits)
- Reducing inclusion rates in feed (difficult to implement logistically, and not in line with the objective of using in feed diets more co-products where mycotoxins usually concentrate)

### 3. Setting of standards

Standards that harmonize best practices across the food and feed chain are a key tool to minimise the risk for human and animal health and support optimized risk

<sup>&</sup>lt;sup>5</sup> <u>Intercéréales</u> (2014). Guide interprofessionnel de gestion des mycotoxines dans la filière céréalière.

management across the supply chain. Standards may take a number of different forms, such as a combination of good practices, toolboxes, acceptable contaminant levels, etc. To develop such standards, knowledge sharing between stakeholders including authorities is essential to identify the most appropriate tools to incorporate.

In the case of mycotoxins, any standards should be flexible enough to allow for review in light of geographical and annual variation.

In the case of food, we need to bear in mind that the ratios between "unprocessed cereals" and the associated "cereal products for direct human consumption" are highly variable and lead to situations where compliant raw materials will become non-compliant end-products. It is vital that compliant consumer products can be produced from compliant raw materials or semi-finished products. Maximum levels offer little flexibility as often they do not adequately recognise neither the variable relationship of mycotoxin levels in unprocessed and processed commodities, nor the role of processing to reduce contamination.

Furthermore, to focus simply on maximum levels provides an erroneous impression of diligence whilst diverting regulatory resource away from measures which could have meaningful impact, such as the concrete actions of supply chain management described above, particularly those that identify the need for action and provide mitigation.

We believe that a move to regulation that is effective in both protecting consumers and enabling the food and feed chain supplies to continue minimising waste is critical. Regulation should consider the full box of tools available across the supply chain instead of simply focusing on maximum levels. As a part of such holistic controls, an understanding of levels of contaminants that are acceptable or not in the food and feed chain are important, and we believe indicative/guidance and action levels would be the most effective. Guidance values thus, set as recommendations from the Commission, offer feed and food business operators a higher flexibility and possibilities to complete with intersectoral or contractual provisions. The development of a set of guidelines at EU level would provide clarity and allow for a common understanding to avoid different interpretations across countries and enforcement authorities.

We therefore strongly believe that there are more effective solutions (such as the concrete actions of supply chain management described in this document) that can deliver better food and feed safety while optimising resources, other than regulating based on strict regulatory standards.

#### In conclusion:

We seek the active support from authorities to implement more proportionate risk management measures by encouraging, e.g., the drafting and dissemination of Codes of Good Practice, and the participation in voluntary feed and food safety schemes and other quality assurance schemes.

As partners in the crop and cereal value chains, we are committed to actively work together on solutions and tools that will optimise the risk management of mycotoxins at every step of the supply chain. We ask the Commission and Member States to engage in such a dialogue with us and work together in implementing more proportionate risk management measures. This will contribute to the ambitious European sustainability goals and avoid unnecessary waste and the destruction of otherwise safe and high-quality grains for food and feed.

We thank you in advance for taking these remarks into consideration. Consequently, we would like to continue engaging with the Commission and Member States in the coming weeks and months. Our associations look forward to engaging in a dialogue with regulatory authorities and providing further information and data supporting our position on this matter.



On behalf of:

	AIBI aisbl (Association Internationale de la Boulangerie Industrielle) is the major International association of large bakeries. AIBI is formed of 15 national plant bakeries associations and represents more than 2200 plant bakeries all over Europe. It defends the interests of its members vis-à-vis the European institutions in Brussels.
COCERAL	COCERAL is the European association representing trade in cereals, rice, feedstuffs, oilseeds, olive oil, oils and fats, as well as agrosupply.
copa*cogeca european farmers european agri-cooperatives	Copa and Cogeca are the united voice of farmers and agri-cooperatives in the EU. Together, they represent over 23 million farmers and their families (Copa) and the interests of 22,000 agricultural cooperatives (Cogeca).
euromaisiers	Euromaisiers is the association representing the European maize milling sector. Euromaisiers members are producing a large range of natural and healthy maize-based primary foods destined to the manufacturing of various food, drink and feed products including breakfast cereals, snacks, beer, baby food, pet food, cattle food. Euromaisiers membership comprises 23 maize milling companies and 1 national association from 10 European countries, together representing more than 90% of the European production.
EUROMALT	Euromalt is the trade association representing the malting industry in the European Union. Established in 1959, It aims at the representation and promotion of interests of the EU malting industry at EU and international levels.
European Flour Millers	European Flour Millers is the trade association representing the European flour milling industry. It gathers the national associations from 28 European countries, representing 3 800 companies, most of which are SMEs, employing 45 000 people. With some 45 million t of agricultural commodities processed each year, the sector is the largest single user of EU domestic wheat, rye and oat for the food industry.
Eperts in Animal Nutrition	FEFAC, the European Compound Feed Manufacturers' Federation, represents the UE compound feed and premixtures industry who employs over 100,000 persons on app. 3,500 production sites often in rural areas.
FOODDRINK E U R O P E	FoodDrinkEurope represents Europe's food and drink industry, Europe's largest manufacturing sector in terms of turnover, employment and value added.
FRUCOM	FRUCOM represents EU importers and producers/processors/traders in origin countries of nuts, dried fruit, seeds, seafood and processed fruit and vegetables. Through its membership, mainly based on 9 national trade organisations in 7 EU Member States (Belgium, France, Germany, Italy, the Netherlands, Spain and United Kingdom) FRUCOM represents over 300 companies across the EU and beyond.

Primary Food Processors	The Primary Food Processors of the EU (PFP) is an association
	composed of European Committee of Sugar Manufacturers (CEFS) -
	European Cocoa Association (ECA) - European Flour Milling
	Association (European Flour Millers) - European Vegetable Protein
	Federation (EUVEPRO) - European Vegetable Oil and Proteinmeal
	Industry (FEDIOL) - European Starch Industry Association (Starch
	Europe) - PFP members process approximately 220 Million tons of raw
	materials (cereals, sugar beet, rapeseeds, soybeans, sunflower seeds,
	crude vegetable oil, cocoa products, starch potatoes) employing over
	120 000 people in the European Union
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	Unistock Europe is the European association of professional portside
	storekeepers for agribuik commodities within the European Union