The Risk Analysis Process

Risk analysis is the process of assessing, managing and communicating food and animal feed safety risks. It's how we ensure high standards of food and feed safety and protect consumers.

Who is responsible for food and feed safety in the UK?

The Food Standards Agency (FSA) and Food Standards Scotland (FSS) are responsible for assessing food and animal feed safety in the UK. The FSA and FSS also provide advice to government ministers on authorising regulated food and feed products for use in England, Wales and Scotland.

Food safety risks may need to be considered for many reasons, for example, if:

- bacteria (such as Campylobacter), contaminants (such as acrylamide), allergens (such as peanut) or radiological hazards are present in food
- food is not labelled correctly
- somebody wants to bring a new regulated product to market (such as a food or feed additive, flavouring or novel food)

Prior to 1 January 2021, the European Union (EU) was responsible for risk management decisions, based on risk assessments performed by the European Food Safety Authority (EFSA), including the authorisation of regulated food and feed products. Food and feed safety rules didn't change as a result of the UK leaving the EU as European legislation moved into UK law. When rules on food and feed marketed in Great Britain (GB) need to change we use our own risk analysis process rather than the EU's process.

EFSA are responsible for assessing food and animal feed safety in Northern Ireland. The FSA's approach to risk analysis remains similar to the approach followed by EFSA, and goods authorised in GB can be moved into Northern Ireland through the Northern Ireland Retail Movement Scheme (NIRMS).

What is risk analysis?

It is a structured approach to the identification and management of public health hazards, where we assess the risk of hazards in our food and feed. We use this process to look at the risks from microbiological hazards (such as E. coli or salmonella), radiological hazards (such as radiocaesium contamination relating to the Fukushima accident), chemical hazards (such as heavy metals or chemical washes), physical hazards and allergens. The same process is also used to authorise new products that businesses want to place on the market, such as new types of flavourings, enzymes or additives in feed or food. Risk analysis has three elements:

1. Risk assessment

This involves using a scientific approach to identify hazards and estimate the potential risk to human and/or animal health. This includes evaluating the likely exposure to risks from food and

other relevant sources. It is made up of two parts where we assess the **severity** of the risk (for example what kind of illness it may cause) combined with the **likelihood** it would make you ill (for example looking at how much contamination there is, and who might be eating the product). These two components are combined into a risk characterisation, which also lists any uncertainties (for example we might not know how commonly eaten a new type of food is).

2. Risk management

Risk management refers to potential measures to either prevent or control the risk. It considers the risk assessment and other factors related to consumers' wider interests in relation to food. This helps to identify an appropriate response.

FSA and FSS risk managers, working collaboratively on UK-wide issues, consider which approaches could be implemented to manage and control the risk. They will consult with interested parties and consider any factors relevant for the protection of consumers' health and their wider interests in relation to food before providing advice to Ministers and others.

On more significant issues, the FSA Board is responsible for agreeing risk management recommendations and providing advice to Ministers and others. The FSA Board will also maintain oversight of how the risk analysis process is working, to ensure it remains robust, transparent and based on the latest scientific evidence.

3. Risk communication

This is the exchange of information and opinions throughout the risk analysis process between risk assessors, risk managers, consumers, industry, the academic community and other interested parties.

It includes understanding the concerns of consumers and other stakeholders, the publication of risk assessment findings and other supporting evidence, and the distribution of final advice.

For further information, please refer to the FSA's Risk Communication Toolkit.

How does the risk analysis process work?

Once the risk analysis process is triggered, a risk assessment is carried out to estimate the risk to human and/or animal health. This may be done in consultation with external experts from our independent Scientific Advisory Committees and Joint Expert Groups. Risk assessments will generally be carried out on a four-country basis, with capacity for country-specific risk assessments where required and where the data is available.

Risk managers then consider how we should control these risks. Alongside food safety, they may take into consideration other factors such as animal welfare, environment, economic impact and any nation-specific factors that are relevant.

The risk manager's advice can be used to inform ministerial decisions on changes to legislation, or help to change guidance on issues affecting businesses and consumers.

There is often an element of uncertainty in both science and decision-making. In the interests of protecting public health from emerging food safety risks, the precautionary principle allows us to take action even if there isn't time or data to undertake a full risk assessment. When this happens, temporary risk management measures can be put in place provided they are proportionate, feasible and no more restrictive to trade than they need to be.

The advice that comes out of risk analysis is based on science and evidence. There is a clear separation between our scientific analysis of risk (risk assessment) and the ways we control the risks (risk management). We will publish the advice we provide to others and the analysis and evidence the advice is based on.

The risk analysis process flowchart outlines how the FSA, alongside FSS, makes evidence based recommendations.

The register of risk analysis issues provides information about issues that are being considered through our food and animal feed risk analysis process. It provides a summary of each issue and its current status.

This public register of regulated product applications is a list of the applications received through the regulated products application service that we are currently assessing.

Who is involved in the risk analysis process?

We apply a four-country approach throughout the risk analysis process. This sets out how the four countries will work together when changes to food and feed safety rules are needed. It guarantees regular discussion by the FSA and FSS on issues going through the risk analysis process, ensuring that advice is effective for the UK as a whole, or individual nations as needed.

Our risk assessors deliver the science behind our advice. They are responsible for identifying and characterising hazards, assessing levels of exposure and characterising risks to health. Their advice supports our risk managers in developing the right advice.

In addition, our economists, operational researchers, social researchers and statisticians contribute to the evidence base.

Our risk managers consider which approaches could be implemented to manage and control the risk. They consult with interested parties and take into account any factors relevant for the protection of consumers' health and their wider interests in relation to food.

Our risk communicators ensure information is shared appropriately and in line with the FSA's and FSS's commitments to transparency.

Our Scientific Advisory Committees and Joint Expert Groups help us ensure that our advice to consumers is always based on the best and most recent scientific evidence.

Our Chief Scientific Adviser (CSA) is responsible for the integrity of our scientific evidence and ensuring expert advice is available to us.

The FSA Board will not discuss routine technical issues going through the risk analysis process but may discuss and provide advice to ministers and others on significant, high-profile, or complex cases. Our Board meetings are held in public but there could be a small number of circumstances in which Board discussions would not be in the open, as set out in paragraph 2.7 of the FSA Code of Practice on Openness.