

Report on Emerging and Ongoing Issues

2017

March 2018

Summary

This report describes potential emerging food safety risks (described as emerging issues) identified by Food Standards Australia New Zealand (FSANZ) in 2017 along with the ongoing food safety issues monitored during this period.

Food safety risks can emerge when new hazards are identified or if new information comes to light about an existing food safety hazard, such as increased exposure.

Identifying and monitoring emerging issues enables FSANZ to better forecast and predict possible food safety risks, and develop appropriate measures to manage the identified risks if required.

During 2017 FSANZ identified one emerging issue and maintained a watching brief on 17 ongoing (longer-term and complex) food safety issues.

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Introduction

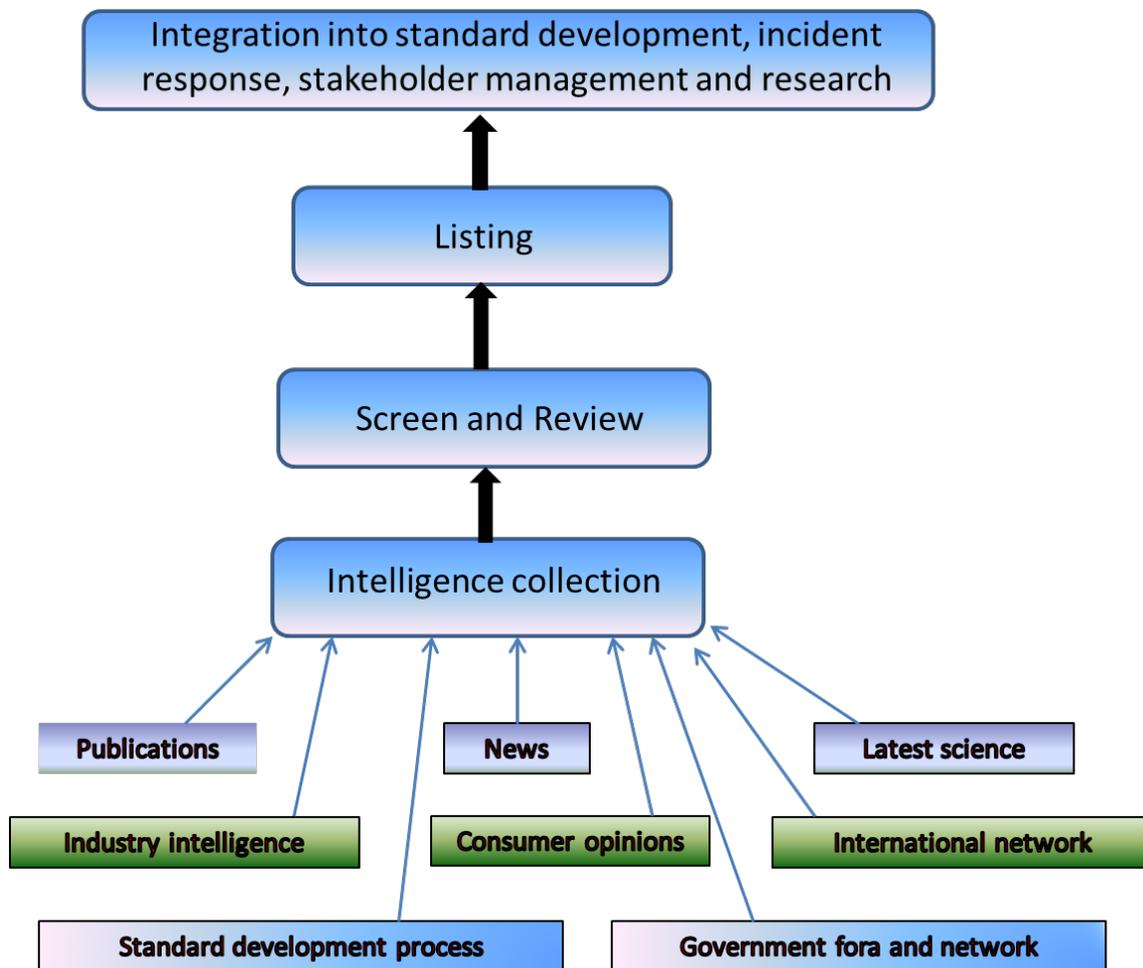
Major food safety incidents can happen with no obvious indication they are about to occur. The negative impact of these incidents can be considerable and negatively impact consumer confidence on food safety (for example the outbreak of mad cow disease in Europe).

The literature indicates there is a time gap between the early signs of an emerging food safety risk and the eventual identification of an emerging food safety risk. This gap can vary from several months to decades. By identifying issues during this time gap, FSANZ can better manage the issue and reduce the effects of food safety risks.

To maintain and enhance the reputation and community confidence of the Australian Government, FSANZ collects intelligence on food safety from a range of sources. The scope of this intelligence collection is broad and covers the area of the food regulatory system for which FSANZ is responsible. FSANZ's system of intelligence collection, subsequent analysis and dissemination of information to FSANZ stakeholders in relation to emerging issues aims to be systematic, complementary, timely and responsive.

Any issue identified is classified as either an emerging issue or an ongoing issue based on whether the food or food ingredient involved poses a future or immediate risk to consumers. Emerging issues can be early warning signs of emerging food safety risks. Ongoing issues are long-term and often complex food safety issues that require active monitoring and timely response. FSANZ carries out investigative research (including surveys and exchange of information with domestic and international counterparts) to uncover the cause or causes involved for each food safety issue. As appropriate, the identified issues are integrated into FSANZ's food standard development, food incident responses, and stakeholder engagement activities.

FSANZ's system for identifying emerging issues



Emerging and ongoing food safety issues during 2017

The emerging issues identified during 2017 are described in **Table 1**, and ongoing issues monitored by FSANZ are listed in **Table 2**.

Table 1: Emerging food safety issue identified in 2017

Emerging Issue	A description of the issue and steps taken by FSANZ to address the issue
Glutamates in food	<p>Glutamic acid is an amino acid, a building block of proteins, naturally produced in humans and occurring in, for example, tomatoes, soy sauce or certain cheeses. Glutamic acid and its salts (E 620-625) commonly referred to as glutamates, are permitted food additives in Australia and New Zealand. They are added to a wide range of foods to enhance flavour by giving them a “savoury” or “meaty” taste. There is currently no established acceptable daily intake (ADI) for glutamate as a food additive in the European Union, Australia and New Zealand or by the Joint FAO/WHO Expert Committee on Food Additives (JECFA). As a result, the intake of glutamate as a food additive in food is not considered to pose a health concern.</p> <p>The European Food Safety Authority (EFSA) re-assessed the safety of glutamates used as food additives and derived a group acceptable daily intake (ADI) of 30 mg/kg body weight per day for glutamate. This safe level of intake is based on the highest dose at which scientists observed no adverse effects on tested animals in toxicological studies. EFSA recommended that the European Commission considers revising the maximum permitted levels, in particular, in food categories contributing the most to the overall exposure to glutamic acid and its salts: fine bakery wares, soups and broths, sauces, meat and meat products, seasoning and condiments and food supplements.</p> <p>FSANZ has published its current understanding on the effect of glutamate as a food additive raised by EFSA. FSANZ is reviewing the opinion published by EFSA to determine whether any changes are required to the Australian New Zealand Food Standards Code.</p>

Table 2: Ongoing food safety issues monitored in 2017

Ongoing issue	A description of the issues and steps taken by FSANZ to address the issue
Acrylamide in food	<p>Acrylamide is a chemical that can form when certain starchy foods are cooked or processed under heat. While there is no direct evidence that acrylamide can cause cancer in humans, there is evidence it can cause cancer in laboratory animals. As such, FSANZ believes that it is prudent to reduce human exposure to acrylamide in food.</p> <p>FSANZ investigated levels of acrylamide in Australian foods as part of the 24th Australian Total Diet Study (ATDS) and has recently published an infographic and accompanying web content on how to reduce acrylamide formation when preparing food in the home.</p>
Antimicrobial resistance	<p>Antimicrobial agents are essential drugs for human and animal health. However, the continuing emergence, development and spread of pathogenic microorganisms that are resistant to antimicrobials are a cause of increasing concern.</p> <p>FSANZ has recently commenced a project on antimicrobial resistance (AMR) in the food supply chain. The project objectives are to define the role of FSANZ in assessing AMR</p>

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	<p>risk in a multi-agency One-Health regulatory environment and establish a framework to assess the risks of AMR in the food supply chain. FSANZ's project is consistent with and complements the overall Australian Government effort to contain AMR.</p>
<p>Arsenic in rice</p>	<p>Arsenic may be present in foods due to its occurrence in water, air and soil arising from natural occurrence or industrial processes.</p> <p>The inorganic form is of most concern for adverse effects in humans. Due to these possible effects its level should be kept as low as achievable. FSANZ is also working with the New Zealand Ministry for Primary Industries (MPI) to survey levels of inorganic arsenic in rice and rice-based products in 2017. The survey will provide FSANZ with up to date data indicating whether the current limits in the Food Standards Code need to be changed and to provide data on which FSANZ can base consumer advice.</p>
<p>Bisphenol A</p>	<p>Bisphenol A (BPA) is used in the manufacturing of polycarbonate plastics found in reusable drinking bottles, infant feeding bottles, storage containers and in the lining of some food and drinks cans. There are studies which have suggested links between BPA and negative health effects.</p> <p>A targeted analytical survey of the levels in food and drinks available in Australia, including infant foods, found that levels of BPA were very low. Based on the available data, FSANZ does not consider that BPA poses a food safety concern.</p>
<p>Caffeine</p>	<p>Caffeine occurs naturally in foods, such as coffee, tea and cocoa and has a long history of safe use as a mild stimulant. Products are also available with added caffeine, including cola-type soft drinks, formulated caffeinated beverages (energy drinks) and energy shots.</p> <p>There is currently no recognised health-based guidance value, such as an Acceptable Daily Intake, though adverse health outcomes have been reported with high caffeine intakes. The Food Standards Code restricts how much caffeine can be added to cola-type soft drinks and energy drinks. Foods containing added caffeine must also have a statement on the label that the product contains caffeine. Foods containing guarana (a South American plant with high levels of natural caffeine) must also be labelled as containing caffeine.</p>
<p>3-monochloro-propandiol and glycidyl esters</p>	<p>Glycidyl esters (GE) and 3-monochloro-propandiol (3-MCPD) esters occur in some foods as a by-product of the the refining process for oils and fats. FSANZ is aware of health concerns with these contaminants.</p> <p>FSANZ is working with regulatory bodies worldwide to investigate whether these contaminants pose any risk to consumers. FSANZ is also working with the New Zealand MPI to survey levels of GEs and 3-MCPD esters in oils and other foods in the Australian and New Zealand food supply.</p>
<p>Folic acid and gene mutation</p>	<p>People with variants to their methylenetetrahydrofolate reductase (mthfr) gene are seeking advice on the safety of foods with added folic acid because of advice to avoid foods with added folic acid.</p> <p>FSANZ notes the following relevant advice from the NSW Centre For Genetics Education website in relation to folic acid.</p> <p><i>Having these variants may reduce a person's ability to metabolise folate. This does not generally cause health problems if there is sufficient folate through diet or supplementation. In Australia we have access to a good diet and we also have a mandatory folic acid fortification program, where folic acid is added to wheat products</i></p>

Ongoing issue	A description of the issues and steps taken by FSANZ to address the issue
	<i>such as bread. Because of this, most people have sufficient folate in their diet to reduce the effect of the MTHFR variant.</i>
Furans	<p>Furan has been detected in a wide variety of commonly consumed foods, notably those in cans or jars, where it can be formed in very low quantities (parts per billion range) from natural food constituents during heat treatment.</p> <p>Furan has been designated as a possible human carcinogen by the International Agency for Research on Cancer (IARC). FSANZ maintains a watching brief on scientific literature about furans in food.</p>
Hepatitis A virus in ready-to-eat berries	<p>Transmission of hepatitis A in association with the consumption of ready-to-eat berries and berry products has emerged in recent years in Australia, New Zealand, Europe, Canada and the USA.</p> <p>FSANZ and the New Zealand Ministry for Primary Industries (MPI) have jointly prepared guidelines on thermal inactivation of hepatitis A virus in berries. FSANZ and the NZ MPI are collaborating on a joint research project investigating thermal inactivation of hepatitis A virus in berries.</p>
High levels of iodine in food	<p>Iodine occurs naturally in a range of foods and is needed for normal body functioning. Historically there have been incidents when foods have been marketed with high levels of iodine, causing adverse effects (thyroid dysfunction). These have arisen from high levels of consumption of seaweed or from beverages enriched with seaweed.</p> <p>FSANZ conducted a survey on the levels of iodine in seaweed and seaweed containing food products in consultation with Australian state and territory competent authorities. The results of this survey were provided to jurisdictions to take appropriate risk management actions on high iodine products. Additionally, working with state and territory authorities, FSANZ developed advice to consumers, particularly pregnant and breastfeeding women, not to over consume brown seaweeds with potentially high levels of iodine. FSANZ also provided advice to the Australian Department of Agriculture and Water Resources (DAWR) for iodine levels in imported brown algae/seaweed vegetables. Brown seaweed is currently on the DAWR imported food 'Risk List'. FSANZ continues to have a watching brief on this issue.</p>
Hormone growth promoters	<p>Hormone growth promoters (HGP) are supplements, or synthetic alternatives, of hormones (oestrogen, progesterone and testosterone) that occur naturally. They come in the form of small implants placed under the skin of the ear of cattle, slowly releasing a low dose of hormones that improves growth rates and feed efficiency.</p> <p>The use of HGP in Australia is authorised by the Australian Pesticides and Veterinary Medicines Authority (APVMA). FSANZ maintains a watching brief on the impact of HGP in food safety.</p>
Intense sweeteners	<p>A number of intense sweeteners are approved for use in Australia and New Zealand. There are ongoing safety concerns raised by consumers with a particular focus on aspartame.</p> <p>FSANZ's comprehensive pre-market assessments and surveys of intense sweeteners have found that there are no safety concerns for consumers and dietary exposure is less than the established acceptable daily intakes for each intense sweetener.</p>
Per- or polyfluoroalkyl substances	<p>FSANZ has completed its review of the literature and recommended tolerable daily intakes (TDIs) for PFOS and PFOA. There was insufficient toxicological and epidemiological information to justify establishing a TDI for PFHxS. In the absence of a TDI for PFHxS, FSANZ recommends that applying the TDI for PFOS to PFHxS will be protective of public health. FSANZ proposed trigger points for investigation that could be</p>

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	employed by state and territory food jurisdictions when analysing PFAS in foods to identify when further investigation of a food may be required.
Pyrrolizidine alkaloids	<p>Pyrrolizidine alkaloids (PAs) are naturally occurring plant toxins which are found in many plants worldwide. They can cause adverse health effects when present at high levels in foods e.g. some herbal teas and from high level contamination of wheat products in other countries. Concerns have been raised about their presence in honey and black and herbal teas</p> <p>FSANZ has worked with other government agencies and the honey industry in Australia and New Zealand to investigate the safety of the PAs found in honey. FSANZ continues to monitor international developments.</p>
Radionuclides	<p>As a result of the damage to the Fukushima Nuclear Power Plant of Japan in 2011, FSANZ formed an association with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) to monitor radionuclides in food.</p> <p>Various radionuclides were analysed in a broad range of Australian foods as part of the 25th ATDS, and a risk assessment is currently being undertaken by ARPANSA.</p>
Synthetic colours	<p>The Southampton study raised concerns that certain food colours may cause learning and behavioural difficulties in some children.</p> <p>FSANZ undertook an analytical survey of synthetic colours in Australian foods in 2008, and published a supplementary risk assessment report in 2012 which found that there are no public health concerns. FSANZ maintains a watching brief on the development in this area, and has concluded that the current provisions in the Food Standards Code are appropriate.</p>
Tropane alkaloids	<p>Tropane alkaloids are plant toxins which occur in many plants worldwide and may get into food by accidental digestion or by weed contamination of crops. The EU published an opinion and identified a potential concern for dietary exposure of toddlers exceeding the health Based Guidance Value. However they acknowledged the data paucity and recommended further work on analytical methodology, toxicity and occurrence data.</p> <p>FSANZ is monitoring the additional work being conducted in order to characterise the risk in Europe and will subsequently assess its significance to the Australian and New Zealand population.</p>