

GLOBAL FOOD INTEGRITY
ISSUES & EMERGING RISKS

POWERED BY



HOT SOURCE



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DEAR READER

Welcome to the second edition of Hot Source, a food integrity summary that provides you with information on the latest emerging risks and food safety challenges powered with intelligence from HorizonScan. HorizonScan intelligence houses data since 1999 to date and is a vital web based food safety alerting tool of raw material and global commodity issues across all food integrity areas. The system will help keep you posted on hazard and risk assessments across all food sectors from around the world and specific issues that may concern you.

2017 is being heralded as the 'year of transparency' in attempt to satisfy customers who want to know more about the content of their food and its origins. In latter months of 2016 there was an increase in recalls from sunflower seeds to flour to powdered milk. It is predicted that this rise in recalls is not expected to slow down with many experts predicting a growth in scale and frequency for 2017, making it even more pressing to ensure you have the right tools to hand to enable you and your business to prevent issues before they happen, impacting the bottom line. HorizonScan is developed and researched by industry experts, keeping you up to date with standards such as BRC v7 and FSMA, emerging risks in specific markets, industry developments and hazards focusing on food quality, safety and sustainability (fraud, microbial contaminants, residues of veterinary drugs, pesticide residues, mycotoxins, allergens, heavy metals, dioxins, PCBs and many more).

Back to what the consumer is demanding: more information about their food, where it came from and what exactly is in it. Leading food brands want to provide this level of transparency to their consumers as well as understanding what is likely to be round the corner, but many are struggling with delivering this in real-time. HorizonScan can deliver this today. Providing more detailed information through the supply chain, there's a cost associated with that, even down to the labelling at the grower stage for guaranteed traceability, which many in the industry view as additional cost, the more strategic players see this as a tactical investment providing a significant return on investment (ROI) in supply chain transparency.

THE FERA TEAM

THINKING *OUT* LOUD

BOOM OR BUST – WHAT WILL 2017 BRING FOR THE FOOD INDUSTRY AND THE ECONOMY

2016 was for many a year of shocks and surprises. The FTSE has been sustained by the weak pound since the shock Brexit moment and the fact that it is dominated by international companies that make most of their money outside of the UK, and the strength of Wall Street, many predict this won't last.

We are already seeing at the start of 2017, the chatter and the beginnings of food prices starting to increase and to add to this landscape, the bad weather in Italy and Spain, from flooding, cold weather and poor light levels creating the perfect recipe of poor growing conditions. With sterling falling sharply against the euro since the Brexit vote in June, many traders are finding that fresh fruit, vegetables, fish, meat and poultry are costing more to buy. Courgettes and lettuces are seeing heavy price hikes with peppers and aubergines being hit amongst many others. With much of the UK produce being focused on potatoes and carrots, the reliance on international imports for more exotic and globally sourced fruit and vegetables,

as demanded by the UK public, will really start to bite in terms of increased costs and sourcing difficulties.

With challenging times ahead, proactively protecting the food supply chain is paramount to ensure company profitability, liability and survival. Global sourcing not only brings with it great choice, but also more complex supply chains as well as external factors such as weaker sterling and poor growing conditions, putting even more pressure on the vital need for increased transparency. Unfortunately, companies have discovered that a single incident of tampering, tainting or contamination can have disastrous consequences to their brand and, in some cases, to their company. Perhaps the real tragedy is that some contaminations may have been prevented if a comprehensive food defence strategy had been enforced throughout the manufacturing process and across the supply chain.

The most important purpose of a food defence strategy is to help increase consumer safety, but protecting

the brand and company profitability should also be considered. A solid food defence strategy, implemented throughout a company and supply chain, can better help protect employees, reduce operational risks, and protect shareholder value. Simply put, having online systems at your fingertips with accurate and timely information allowing the decision makers to make informed decisions can only be a positive step in the right direction.

To follow is a condensed snapshot of a few of the headlines with regards to the main food integrity issues currently being reported on from the last quarter of 2016. It gives you an insight into the wealth of information in our extensive global database of raw material & commodity issues across all food integrity areas, which enables businesses to be pro-active when it comes to monitoring of food supply chain issues.

MILES THOMAS

AT A GLANCE

Q4 RESULTS 2016



KEY

'%' relates to the number of issues concerning that commodity in its group, for example 36.3% of all issues concerning nuts, nut products and seeds involved pistachios.

'Main issues' reflects the majority of issues reported for that commodity, but does not include every minor issue, for example, most reported issues concerning chicken meat were either the presence of *Salmonella* or fraudulent documentation.

'Issues' relates to food recalls, border rejections and other such notifications at a global level collated from over 110 official government and other additional reliable sources around the world.

HORIZONSCAN HIGHLIGHTS: 2016 Q4 Roundup

Emerging issues

- An emerging issue has been picked up in HorizonScan concerning adulteration/substitution in Feta cheese. An alert from the EFET (Hellenic Food Authority) in Greece recalls Feta cheese which was found to be made from 100% cow's milk, rather than the 70% permissible limit.
- HorizonScan has picked up an emerging issue regarding *Salmonella* in papayas originating from Thailand. This is the first time that *Salmonella* contaminated papayas from Thailand have appeared in HorizonScan and 2 reports have now been received from Hong Kong concerning this issue. Thailand was the third largest exporter of papayas into the EU in 2015, having exported 623,000 kg.
- An emerging issue has been picked up involving excessive levels of sulphites in desiccated coconut from Indonesia. Whilst high levels of sulphites in desiccated coconut is not a new issue in HorizonScan, the past instances have involved coconut originating from The Philippines and Thailand, and this is the first time that high levels of sulphites have been reported in desiccated coconut from Indonesia. In 2015 Indonesia exported 26,912,000kg of desiccated coconut into the EU, making it the second largest exporter of this commodity last year.
- A RASFF report has been released regarding the attempted import of mint from Vietnam into the United Kingdom. The import of mint from Vietnam into the EU is currently banned. This is also an emerging issue as it is the first time this has appeared in HorizonScan.
- Research carried out by the University of Leicester suggests that conditions within bagged salads create the perfect breeding ground for bacteria. The moist environment created by bagging the salad, along with the nutrients which leach from the ready-chopped leaves can fuel the growth of bacteria such as *Salmonella*. The study showed that an initial contamination of 100 *Salmonella* bacteria would increase to 100,000 within 5 days. They are now advising that bagged salad is eaten on the day of purchase.
- A RASFF report has been released for rooibos tea originating from South Africa and contaminated with pyrrolizidine alkaloids (2371 µg/kg - ppb). This is also an emerging issue as it is the first time an alert for South African rooibos tea has appeared in HorizonScan for this particular contaminant. The tea has been distributed to the following 10 countries; Austria, Belgium, Denmark, Estonia, Germany, Hungary, Latvia, Netherlands, Switzerland and the United Kingdom.
- Unauthorised substance carbendazim has been reported for the first time in rambutans from Thailand.

Increasing issues

- An increasing issue has been picked up by HorizonScan regarding pesticide residues in mangoes from Brazil. The occurrence of this issue is now at over 6 times the previous annual average, and alerts have been issued by several countries including The Netherlands, Hungary and Japan. Brazil was also the largest importer of mangoes into the EU in 2015, with 111,868,000 kg of mangoes imported by them.

Issue	Date	Notifying Country
Unauthorised substance omethoate (0.047 mg/kg - ppm) in mangoes from Brazil	02 Nov 2016	The Netherlands
Omethoate and dimethoate (sum= 0.165 mg/kg - ppm) in man- goes from Brazil, via The Czech Republic	20 Nov 2015	Hungary

- An increasing issue has been picked up by HorizonScan concerning the presence of Listeria monocytogenes in ice cream products from the USA. The incidence is now 6 times higher than the previous annual average.

Issue	Date	Notifying Country
Listeria monocytogenes may be present in ice cream	20 Dec 2016	The United States
Listeria monocytogenes may be present in cappuccino ice cream	19 Jul 2016	The United States

- An increasing issue has been picked up by HorizonScan regarding aflatoxins in hazelnuts from Georgia. The occurrence of this issue is now at over 11 times the previous annual average, and alerts have been issued by several countries including Bulgaria, Poland and Italy. Georgia was the third largest exporter of hazelnuts to the EU in 2015, having exported 634,000kg. This also follows the HorizonScan highlight from the 5th of July 2016 which highlighted the emergence of new risks from aflatoxins in hazelnuts originating from Georgia and the related EU Legislation (Regulation 2016/1024)

Issue	Date	Notifying Country
Aflatoxins (B1 = 8,9; Tot. = 12,4 µg/kg - ppb) in hazelnut kernels from Georgia	21 Dec 2016	Cyprus
Aflatoxins (B1 = 56.1; Tot. = 124 µg/kg - ppb) in hazelnut ker- nels from Georgia	20 Oct 2015	Italy

- Incidences of high levels of pesticides in raisins originating from Iran continue to increase. Reports have been received from the RASFF and also individual countries over the past year for a number of pesticide exceedances involving the substances ethion, fenpropathrin and propargite.

Issue	Date	Notifying Country
Unauthorised substance carbendazim (2.0 mg/kg - ppm) in raisins from Iran, via the United Kingdom	08 Nov 2016	Norway
Ethion (0.17 mg/kg - ppm) in raisins from Iran	19 Nov 2015	Italy

(Please note that not all the reports concerning these particular issues are displayed in the tables above, they are just the first and the last report being encountered over the 12 months period).

- A senior scientist has warned of a possible increase in the number of trade bans on the import of meat from livestock fed with antibiotic growth promoters. Professor Jorgen Schlundt raised concerns at an international trade conference on antimicrobial resistance, noting the upcoming ban on the use of most antibiotics used as growth promoters in the USA starting on the 1st of January 2017, and the already comprehensive ban on such products within the EU. He suggested that this rise in 'rich countries' banning such products will lead to the implementation of trade barriers to bring smaller markets in line.
- EU Commission Regulation 2016/2106 has been released imposing an increase in the sampling frequency of hazelnuts originating from Turkey and amending Regulation (EU) 884/2014. It amends the frequency of physical and identity checks of the hazelnuts for aflatoxins from random to 5%.
- Following an increase of findings of non-compliance with Union legislation on aflatoxins in hazelnuts from Azerbaijan, to provide for additional guarantees and to ensure that the competent authority of the country of origin carries out the necessary controls before export to the Union, a health certificate must accompany each consignment of hazelnuts for import into the Union in order to protect human and animal health.
- Following an increase of findings of non-compliance with Union legislation on aflatoxins in groundnuts (peanuts) from Argentina, to provide for additional guarantees and the competent authority of the country of origin must carry out the necessary controls before export to the EU.
- Germany has seen a significant increase in Salmonella Stourbridge linked to fourteen people taken ill and two deaths. The source of infection has not been identified. The source of the EU-wide outbreak of S. Stourbridge in 2005 was unpasteurised goat cheese.

Other issues

- Concerns have been raised regarding this year's olive oil yield from Italy. Due to a number of reasons such as poor weather, olive fruit fly and other pathogens, this year's harvest is not expected to exceed 250,000 tonnes. Despite this though, reassurances have been made that prices of olive oil will be largely unaffected.
- The Seafish regulation team in the UK has issued a warning letter to wholesalers to make them aware of an issue with some tuna being placed on the UK market. A practice has emerged where low grade tuna is being injected with fermented vegetable extract to restore the red colour of the fish. It is then being mis-sold as high-grade tuna at a premium price. It is believed the practice is most commonly used on tuna being processed in Spain, France and Italy.
- The Australian Competition and Consumer Commission (ACCC) have instructed Aldi and Menora to regularly test their oregano products are what they say they are following an investigation which found that 7 out of 12 dried oregano samples contained other ingredients such as olive leaves and sumac leaves. This is similar to the findings of an investigation carried out in the UK in 2015 which found dried oregano adulterated with other ingredients.
- Regarding vanilla, another increase in price is expected in the near future. While its demand is still growing, there is a vanilla bean shortage in Madagascar and a decline in production elsewhere in the world.
- Concerns have been raised regarding the practice in China of injecting shrimp with gel in order to make them heavier. This isn't a new issue in China, but the occurrence seems to be increasing with seemingly little being done to combat the problem.
- Over 94,000 litres of apple juice have been banned from being placed on the market in Hungary, following the discovery that the expiry date had been extended several times by the producers.
- A new Bloomberg Businessweek investigation has highlighted a process that is allowing Chinese shrimps producers to sneak antibiotic-tainted products into the United States via transshipment.

NUTS, NUT PRODUCTS AND SEEDS

MAIN ISSUES REPORTED DURING Q4 2016 (FROM A TOTAL OF 91 ISSUES)

36.3%



PISTACHIOS

Aflatoxins, fungal moulds, *Salmonella*, pesticides

3.3%



ALMONDS INCLUDING GROUND ALMONDS

Aflatoxins

17.6%



HAZELNUTS

Aflatoxins, *Salmonella*, undeclared peanut

3.3%



CASHEW NUTS

Decomposition, aflatoxins, multiple undeclared allergens

7.7%



MELON (EGUSI) SEEDS

Fraudulent documentation, aflatoxins

3.3%



PUMPKIN SEEDS

Organic Contaminants, insect infestation

5.5%



NUT SPREADS (EXCEPT PEANUT)

Undeclared peanuts, pesticides, *Salmonella*

3.3%



COCONUT - DESICCATED, DRIED, FLOUR

Salmonella, undeclared sulphite, undeclared dairy

4.4%



OTHER TREE NUTS & MIXED NUTS

Aflatoxins, decomposition, undeclared peanut

HERBS & SPICES

MAIN ISSUES REPORTED DURING Q4 2016 (FROM A TOTAL OF 91 ISSUES)

26.4%



SPICE MIXTURES/OTHER SPICES

Salmonella, colours, insufficient production controls, aflatoxins

4.4%



CORIANDER LEAVES (CILANTRO)

Pesticides, *Salmonella*

13.2%



PAPRIKA AND CHILLI POWDER

Aflatoxins, *Salmonella*, Ochratoxin A

4.4%



CUMIN SEED AND GROUND (JEERA)

Undeclared sulphites or *Salmonella*

12.1%



PAAN LEAVES (BETEL)

Salmonella

3.3%



DRIED HERBS - VARIOUS

Salmonella, too high aerobic colony count, PAHs

7.7%



NUTMEG WHOLE AND GROUND

Aflatoxins, Ochratoxin A

3.3%



CINNAMON

Bacillus cereus (presumptive)

6.6%



BASIL

E. coli, pesticides, *Salmonella*

3.3%



MINT

E. coli, fraudulent documentation, *Salmonella*

POULTRY MEAT AND POULTRY PRODUCTS

MAIN ISSUES REPORTED DURING Q4 2016 (FROM A TOTAL OF 100 ISSUES)

41.0%

MEAT - CHICKEN

Salmonella, fraudulent documentation



8.0%

MEAT - TURKEY

Salmonella



26.0%

EGGS

Salmonella



6.0%

MEAT - DUCK

Salmonella



8.0%

POULTRY PRODUCTS (PÂTÉ, BURGERS)

Mislabelling, Campylobacter, inadequate thermal processing



6.0%

POULTRY MEAT PRODUCTS - SAUSAGES

Listeria, Salmonella, inadequate thermal processing



SEAFOOD

MAIN ISSUES REPORTED DURING Q4 2016 (FROM A TOTAL OF 246 ISSUES)

27.6%

CRUSTACEANS (CRAB, SHRIMPS ETC.)

Undeclared sulphite, vet drugs, Salmonella, Vibrio, cadmium



6.9%

CEPHALOPODS (OCTOPUS, SQUID ETC.)

Cadmium, decomposition, aerobic or coliform bacteria



26.8%

FISH - FRESH/FROZEN

Mercury, decomposition, nematode infestation, histamine



6.1%

BIVALVE MOLLUSCS (MUSSELS, SHELLFISH)

E. coli, Salmonella, too high a level of sulphite, PSP, norovirus, ASP



26.8%

FISH - SMOKED/CURED/DRIED

Listeria, C. botulinum, fraudulent documentation, PAHs



3.7%

SEAWEED, ALGAE

Cadmium, iodine, Salmonella



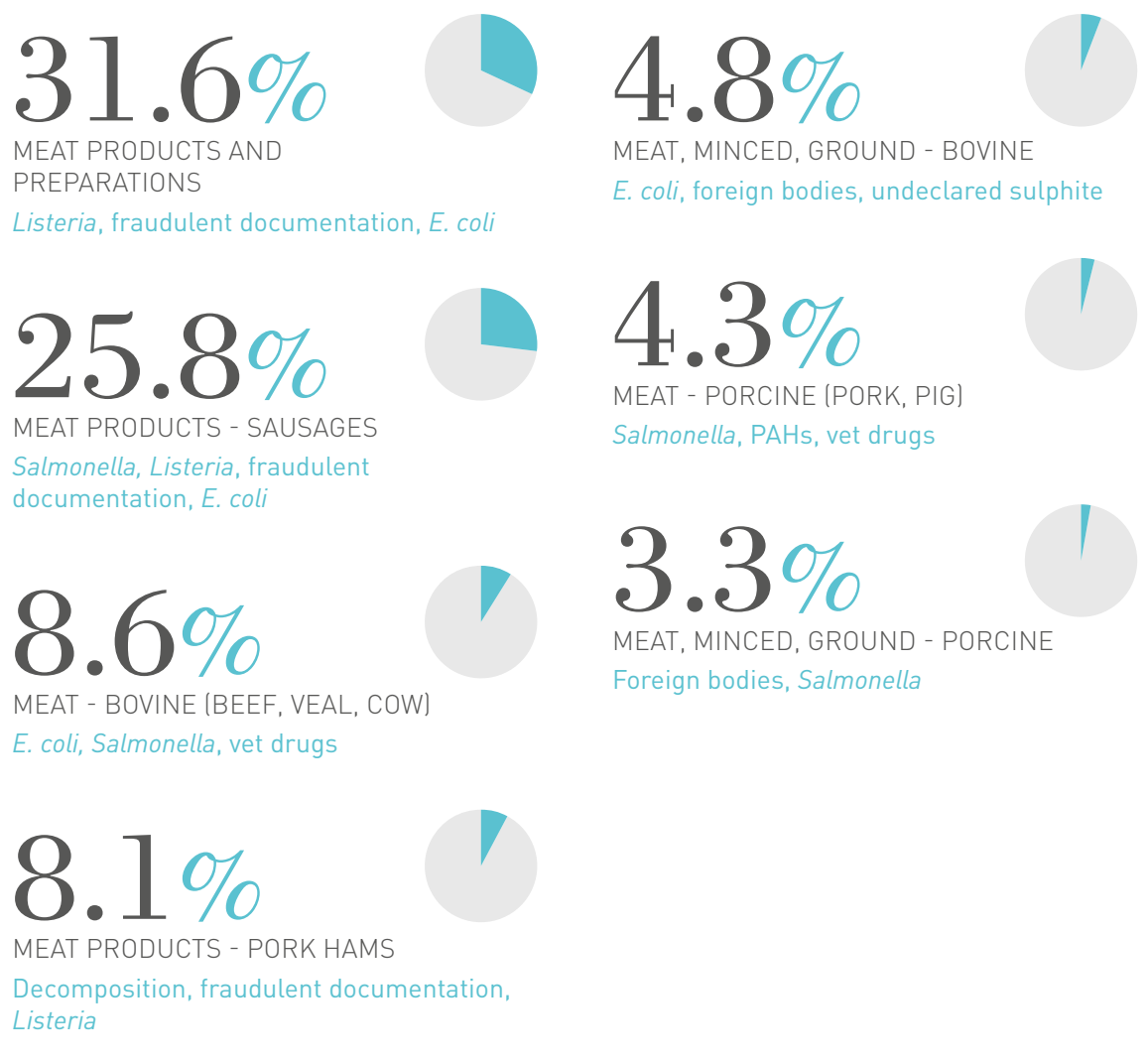
FRUIT & VEGETABLES

MAIN ISSUES REPORTED DURING Q4 2016 (FROM A TOTAL OF 318 ISSUES)



MEAT AND MEAT PRODUCTS (OTHER THAN POULTRY)

MAIN ISSUES REPORTED DURING Q4 2016 (FROM A TOTAL OF 209 ISSUES)



LOOKING *BACK* OVER THE LAST DECADE

– A SNAPSHOT OF THE
GLOBALLY RECORDED
FOOD INTEGRITY
ISSUES BY COUNTRY,
CATEGORY & AREAS.

HORIZONSCAN

BREAKDOWN OF GLOBALLY RECORDED FOOD INTEGRITY ISSUES IN THE LAST 10 YEARS

21.0%

MICROBIOLOGICAL CONTAMINANTS
Mainly *Salmonella*, *Listeria* & *E. coli*



6.0%

FOOD FRAUD ISSUES



19.0%

NATURAL TOXICANTS
Mostly aflatoxins & ochratoxin A



6.0%

PROCESSING ISSUES



13.0%

PESTICIDE RESIDUES



4.0%

VET DRUG RESIDUES



8.0%

UNDECLARED ALLERGENS
Mainly dairy, multiple allergens,
sulphite and gluten



16.0%

OTHER ISSUES



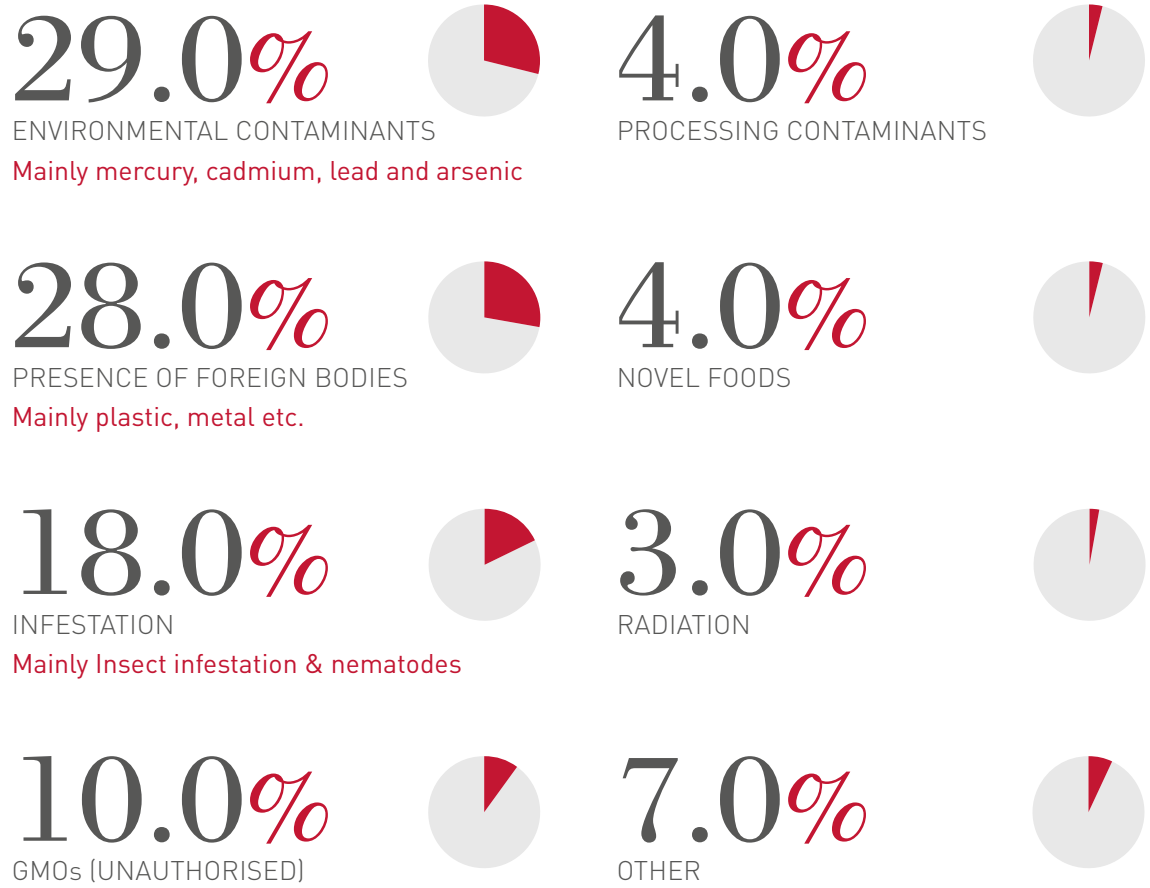
8.0%

FOOD ADDITIVES



HORIZONSCAN

DETAILED BREAKDOWN OF OTHER ISSUES (19% OF TOTAL) IN THE LAST 10 YEARS



HORIZONSCAN

BREAKDOWN OF GLOBALLY RECORDED FOOD INTEGRITY ISSUES IN THE LAST 10 YEARS BY COUNTRY OF ORIGIN/PRODUCTION





HORIZONSCAN

GLOBAL FOOD INTEGRITY AND RISK SYSTEM

The BRC Global Standard for Food Safety has been revised and was re-issued as version 7 in January 2015 with audits commencing (back) in July 2015. While all elements of the previous version have been maintained, albeit with some clarification and additions, there is now a significant refocus and emphasis on the transparency of the supply chain.

HorizonScan can help you keep ahead of the game by daily monitoring of emerging, new and novel issues in the commodities you use, wherever you might source them.

The system can also aid with the data needed to complete your vulnerability assessments for BRC in the prevention of food fraud from adulteration, substitution, fraudulent documentation to expiry date changes, production in unapproved premises, production with inspection and unsuitable means of transport.

For supply chain managers with multiple ingredient responsibilities and complex international supply chains, or companies looking for new supply options, this system enables you to conduct top line investigations and be alerted to issues very quickly.

With a global database of raw material and commodity issues across all food integrity areas running from 1999, HorizonScan can help put your mind at rest when you need to illustrate proactive monitoring of supply chain issues, be it fraud and authenticity concerns, pesticide or veterinary drug residues, environmental and other contaminants, microbiological problems or allergens.

- Regular email alerts related specifically to your commodity interests so no need to look every day if time is of the essence
- Searchable summary of all problems in individual commodities at an international level
- Official sites of 63 countries with over 90 independent sources scanned daily

- Links to original data sources
- Historical database of known supplier problems
- Detailed breakdown of fraud and authenticity issues pre-dating horsegate by several years

Risk prioritisation for:

- Pesticides residues
- Veterinary drug residues
- Mycotoxin incidence
- Microbiological incidence
- Unlabelled allergens

International coverage

HorizonScan sources recall, alert and food integrity information at a global level on a daily basis. Reports from major food importing countries and others are all monitored.

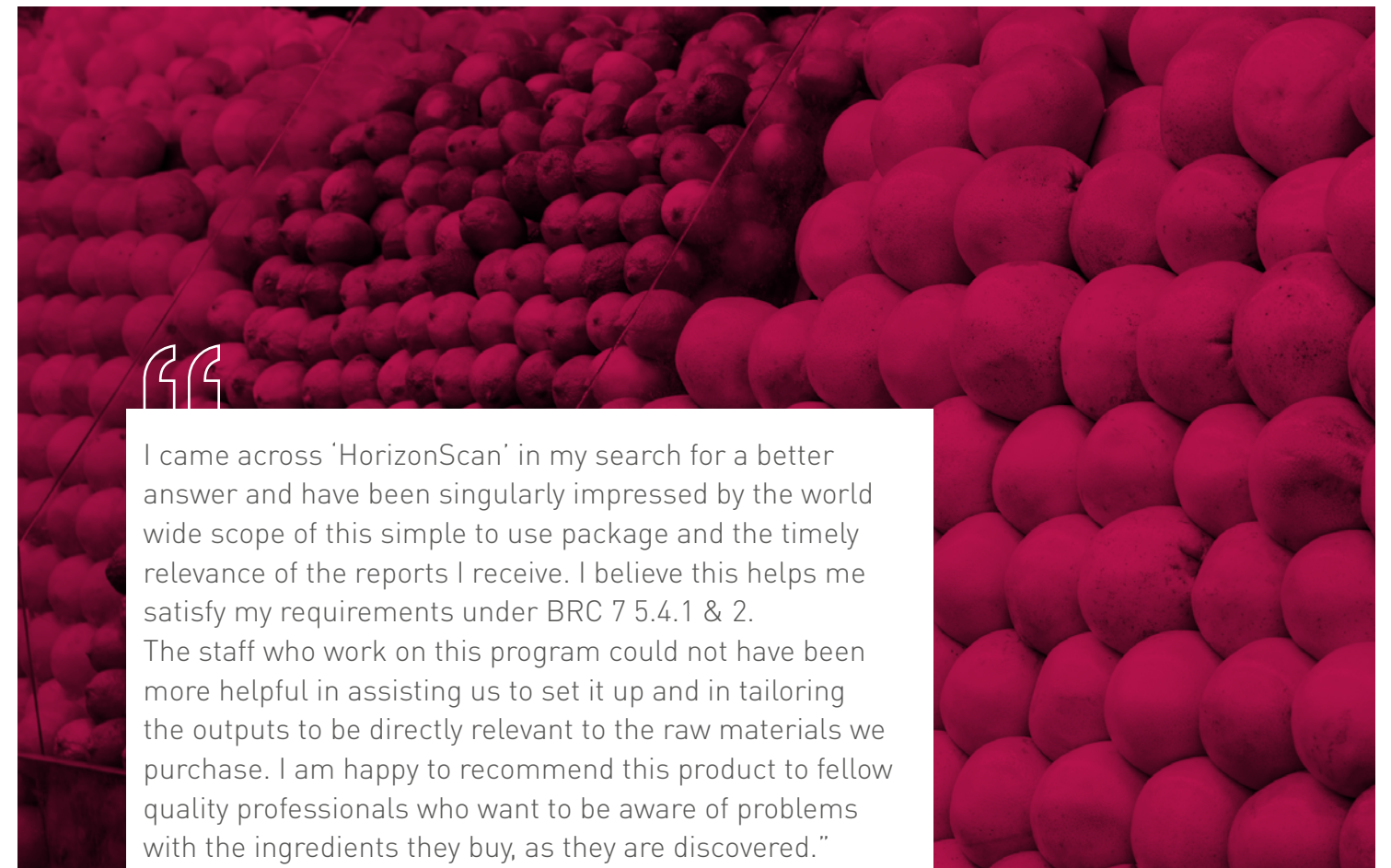
Sector coverage

HorizonScan provides information to assist with hazard and risk assessments across all food sectors from around the world.

Issues

HorizonScan provides information on all the issues that may concern you including:

- Fraud
- Residues (pesticides & veterinary drugs)
- Mycotoxins & natural toxicants
- Heavy metals & environmental contaminants
- Processing contaminants
- Microbiological issues
- Undeclared allergens
- Food additives & colours
- Infestation & foreign bodies
- Including emerging and increasing issues



I came across 'HorizonScan' in my search for a better answer and have been singularly impressed by the world wide scope of this simple to use package and the timely relevance of the reports I receive. I believe this helps me satisfy my requirements under BRC 7 5.4.1 & 2. The staff who work on this program could not have been more helpful in assisting us to set it up and in tailoring the outputs to be directly relevant to the raw materials we purchase. I am happy to recommend this product to fellow quality professionals who want to be aware of problems with the ingredients they buy, as they are discovered."

Toby Cusworth FIFST, Director LFI(UK) Ltd.

Flexible Search

HorizonScan's modular structure allows you to search for the areas that interest you, either at the individual commodity level or for specific residue or contaminant issues.

Supplier Check

HorizonScan allows you to check individual companies for previous commodity-specific references to food integrity issues in their supply chain.

Up-to-date information

All traded food and commodities are tracked, with data of food integrity issues from 1999 to today. Information on produce & exports from 183 countries, typically with 30 new issues added daily.

KEY FEATURES & BENEFITS

- Flexible search
- Supplier check
- Daily global coverage
- Information bulletins
- Email alerts
- Risk prioritisation



FREE TRIAL AVAILABLE

FC24 - FOOD CONTAMINANTS

EU FOOD CONTAMINANTS REGULATIONS AND ALERTS

Spotting risks in the food chain is a daily challenge faced by growers, importers, processors and retailers. It is a task made all the more difficult by having to wade through endless regulations and other data sources to find the parts that might be applicable to you. **FC24 changes all that.**

FC24 is a regularly updated, comprehensive guide to EU food contaminants legislation and residue limits. It is designed to meet the needs of food industry professionals connected with:

- Food production
- Own label food retail
- Importing produce and food stuffs into the EU
- Food testing
- National regulatory standards for export to the EU
- Food produce and processing for export to the EU.

FC24 pulls together relevant information from across the EU relating to food contaminants and residues, including metals, nitrates, veterinary drugs, pesticides and dioxins.

Flexible Search

FC24 has been designed to provide simple, intuitive search options allowing you to undertake single or multiple item searches with equal ease. Search by:

- Commodity
- Contaminant
- Country of origin
- Recipe picker

Where appropriate, search results contain links to corresponding EU legislation for sampling protocols and analytical techniques so you can quickly access further information. Links are also made via country of origin and commodity to any provenance concerns which may arise through the protected designation of origin (PDO), protected geographic indication (PGI) or traditional speciality guaranteed (TSG) listings.

Recipe Picker

The recipe picker allows you to select all the ingredients you may be processing to make an existing or new product. You can then find the minimum levels permissible for any contaminants that could be present in the selected recipe ingredients, with the option to display all levels if required.

Information bulletin

An automatic, free weekly email bulletin service informs you of any new or changing legislation affecting the data in FC24.

KEY FEATURES & BENEFITS

- Flexible search
- Information bulletins
- Recipe picker
- Email alerts/warnings

**FREE TRIAL
AVAILABLE**



**COMPLIANCE
MADE EASIER**



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