

FERA'S QUARTERLY ROUNDUP

POWERED BY



HOT SOURCE

GLOBAL FOOD
INTEGRITY ISSUES



Date: June 2016, Version 1





DEAR READER

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Welcome to Hot Source, the new food integrity quarterly summary that provides you with the latest emerging risks and increasing food safety challenges all in one handy round up all powered with the 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 like fraud, microbial contaminants, residues of veterinary drugs, pesticide residues, mycotoxins, allergens, heavy metals, dioxins, PCBs and many more. Developed and researched by industry experts, these insights will keep you up to date with regulatory breaches and compliance (e.g. BRC v7), emerging risks in specific markets, industry developments and hazards focusing on food quality, safety and sustainability.

Globalisation means opportunities for the food value chain to grow and expand its reach into new markets are constantly increasing so drawing on Fera's international market experience, expertise and in-depth industry understanding will help to grow your business.

For the complete range of Fera services and support visit: www.fera.co.uk

FERA KNOWLEDGE SOLUTIONS TEAM





THINK *OUT* LO


PROACTIVELY PROTECTING
THE FOOD SUPPLY CHAIN IS
PARAMOUNT FOR SAFEGUARDING
COMPANY PROFITABILITY,
LIABILITY, AND SURVIVAL.

Several factors have converged to create this heightened need for transparency and effective communication within the food and drinks industry with public trust declining in the wake of recent product unnecessary recalls. In just the past few months, high-profile recalls of canned tuna, chocolate, pistachios, baby food, potato chips and others have prompted consumers to question whether companies within the food supply chain have their safety and best interests in mind.

This new generation of consumer is both enlightened and empowered – and has a new set of drivers that influence its purchasing decisions. Additionally, in an effort to reduce costs, companies have turned to both outsourcing and global sourcing, resulting in more complex supply chains putting even more pressure on the vital need for increased transparency. Some companies have partially responded to these issues by investing in lot tracking processes and systems, which allow them to track batches of products through the supply chain.

However, these systems are usually limited in scope, lacking in precision and deliver sharply reduced visibility as products move downstream in the supply chain. Additionally, they focus on isolating affected products after a contamination occurs.

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.



KING OF THE

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 allows the decision makers to make informed decisions which can only be a positive step in the right direction. Enclosed within the next pages is a snapshot of just some of the headlines with regards to the main food integrity issues currently being reported on from the last quarter. It gives you the insight in actuals pulled from our extensive global database of raw material and commodity issues across all food integrity areas, enabling a business to be pro-active when it comes to monitoring food supply chain issues.

MILES THOMAS

AT A GLANCE

JANUARY - MARCH 2016 (Q1) RESULTS

QUARTER CHANGE
FROM Q4 2015

ANNUAL CHANGE
FROM Q1 2015



KEY

% relates to the number of issues concerning that commodity in its group, for example 43.2% 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 *Campylobacter*.

Issues relates to food recalls, border rejections and other such notifications at a global level collated from over 60 official government and other additional reliable sources around the world.

NUTS, NUT PRODUCTS AND SEEDS

MAIN ISSUES REPORTED DURING Q1 2016 (FROM A TOTAL OF 125 ISSUES)

43.2%

PISTACHIOS

Aflatoxins or *Salmonella*



4.8%

WALNUTS

Product decomposed or insect infestation



14.4%

HAZELNUTS

Aflatoxins or fungal moulds



4.0%

MACADAMIA NUTS

Salmonella



8.8%

APRICOT KERNELS

Mislabelling or aflatoxins



3.2%

CASHEW NUTS

Salmonella or pesticides



6.4%

ALMONDS

Aflatoxins or adulteration



HERBS & SPICES

MAIN ISSUES REPORTED DURING Q1 2016 (FROM A TOTAL OF 119 ISSUES)

24.4%

PAAN LEAVES (BETEL)

Salmonella



5.0%

NUTMEG

Aflatoxins



14.3%

SPICE MIXTURES, CURRY POWDER

Salmonella or undeclared allergens



5.0%

GINGER

Undeclared sulphites or *Salmonella*



14.3%

PAPRIKA AND CHILLI POWDER

Aflatoxins, ochratoxin A or adulteration



3.4%

CUMIN SEED

Salmonella, pesticides or adulteration



6.7%

MINT

E. coli, *Salmonella* or pesticides



3.4%

BASIL

Pesticides or *E. coli*



5.9%

PERILLA

Salmonella or *E. coli*



3.4%

PEPPER, BLACK, PINK AND WHITE

Adulteration, *Salmonella* or pesticides



5.0%

OTHER HERBS - FRESH

Salmonella or *E. coli*



2.5%

CORIANDER SEED

Salmonella



POULTRY MEAT AND POULTRY PRODUCTS

MAIN ISSUES REPORTED DURING Q1 2016 (FROM A TOTAL OF 53 ISSUES)

73.6%

MEAT - CHICKEN

Salmonella or Campylobacter



5.7%

EGGS

Salmonella



11.3%

MEAT - TURKEY

Salmonella or Campylobacter



3.8%

EGGS - DRIED/POWDERED

Vet. drug residues



SEAFOOD

MAIN ISSUES REPORTED DURING Q1 2016 (FROM A TOTAL OF 222 ISSUES)

38.3%

FISH - FRESH/FROZEN

Mercury, product decomposed/alterd organolepsis, *Salmonella* or vet. drug residues



11.7%

CRUSTACEANS (PRAWNS ETC.)

Vet. drug residues, *Salmonella* or too high level of sulphites



20.7%

BIVALVE MOLLUSCS (MUSSELS ETC.)

E. coli, norovirus, hepatitis A or cadmium



8.6%

CEPHALOPODS (OCTOPUS, SQUID ETC.)

Cadmium, product decomposed/alterd organolepsis or foreign bodies



14.9%

FISH - SMOKED/PRESERVED

Listeria, *C. botulinum* or histamine



FRUIT & VEGETABLES

MAIN ISSUES REPORTED DURING Q1 2016 (FROM A TOTAL OF 231 ISSUES)

7.8%

CHILLI PEPPERS - FRESH OR DRIED
Pesticides, *Salmonella* or aflatoxins



3.9%

VINE LEAVES
Pesticides, *Salmonella* or *E. coli*



6.5%

FIGS - DRIED
Aflatoxins, ochratoxin A or undeclared sulphites



3.5%

OTHER SMALL FRUIT & BERRIES
Pesticides, norovirus or irradiation



6.1%

PEPPERS (SWEET) - FRESH OR DRIED
Pesticides



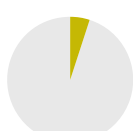
3.0%

RASPBERRIES
Norovirus



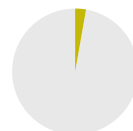
5.2%

APRICOTS - DRIED
Too high a level of or undeclared sulphites



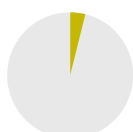
3.0%

OTHER SALAD VEGETABLES
Salmonella or *Listeria*



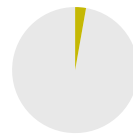
4.3%

SPINACH
Pesticides



2.6%

VINE FRUITS - RAISINS
Ochratoxin A



MEAT AND MEAT PRODUCTS (OTHER THAN POULTRY)

MAIN ISSUES REPORTED DURING Q1 2016 (FROM A TOTAL OF 129 ISSUES)

71.3%

MEAT PRODUCTS AND PREPARATIONS

Listeria, foreign bodies, *Salmonella* or *E. coli*



3.9%

MEAT - OTHER, MIXED OR UNSPECIFIED

Fraudulent documentation, *Salmonella* or *E. coli*



5.4%

MEAT - BOVINE (BEEF, VEAL, COW)

Salmonella or *E. coli*



2.3%

MEAT, MINCED, GROUND - BOVINE

Salmonella or *E. coli*



5.4%

MEAT - PORCINE (PORK, PIG)

Mislabelling or aflatoxins



2.3%

MEAT - RABBIT OR HARE

Vet. drug residues



HORIZONSCAN HIGHLIGHTS: 2016 Q1 Roundup

HORIZONSCAN'S ROUNDUP FOCUSES ON SHARING NEW INSIGHTS FOR EMERGING AND INCREASING FOOD INTEGRITY ISSUES THAT HAVE OCCURRED THROUGHOUT THE YEAR, GENERATING NEW INSIGHTS AND PROVIDING INFORMATION TO ASSIST TACKLING THESE ISSUES IN THE FUTURE.

Emerging issues

- Belgium has reported the presence of ethephon (at 0.13 mg/kg) and the unauthorised substance carbofuran (at 0.26 mg/kg) in fresh figs from Brazil. This is only the third report of pesticide residues in fresh figs we have encountered since our monitoring for HorizonScan began in 1999. Previous reports were of monocrotophos in fresh figs from Mexico in 2012 and ethephon in fresh figs from Brazil in 2010.
- For the first time, a food recall has been released by Luxembourg for palm oil imported from New Guinea. Following a market check the Luxembourg food authorities found that the palm oil was contaminated with sudan III, sudan IV and sudan red 7B. Sudan dyes are prohibited due to their potential genotoxic and carcinogenic properties.
- A recall has been issued for the first time for ground cinnamon, originating from Vietnam and contaminated with fungal spores. The recall was published by Lithuania. Vietnam was the second largest importer of ground cinnamon into the EU in 2014.
- A first time recall has been issued for spinach originating from Spain and contaminated with perchlorate. This recall was published by The Czech Republic. Spain was the largest Intra-EU exporter of spinach last year, exporting 21,013,000kg of spinach within the EU.

Increasing issues

- While norovirus appears to be an increasing problem in strawberries, particularly recently from Morocco, there has been a rise in incidence of pesticide residues in strawberries from Egypt, particularly of methomyl, fipronil, propargite and propamocarb, and while the number of reports is lower than in 2013, there have been 12 reports in the last 12 months from seven European countries.

Issue	Date	Notifying Country
Unauthorised substance propargite (0.16 mg/kg - ppm) in chilled strawberries from Egypt	20/01/2016	Belgium
Propargite (0.06 mg/kg - ppm) in strawberries from Egypt	19/02/2015	Italy

- Reports of peppers from Egypt contaminated with pesticides, including but not limited to oxamyl, carbendazim and flusilazole, are currently at 5.2 times higher the annual average, with alerts raised by several EU countries over the past year.

Issue	Date	Notifying Country
Oxamyl (0.12 mg/kg - ppm) in chilled sweet peppers from Egypt	05/01/2016	Bulgaria
Flusilazole (0.054 mg/kg - ppm) in white peppers from Egypt	13/01/2015	Slovenia

HORIZONSCAN HIGHLIGHTS: 2016 Q1 Roundup

Increasing issues

- An increasing number of reports has been seen concerning the presence of *Salmonella* in Indian betel (paan) leaves imported to The United Kingdom, and incidence is now over 6 times higher than previous annual average.

Issue	Date	Notifying Country
<i>Salmonella</i> (presence /25g) in betel leaves from India	17/02/2016	United Kingdom
<i>Salmonella</i> spp. (presence /25g) in betel leaves from India	14/01/2015	United Kingdom

- There has been an increasing number of reports seen by The United Arab Emirates and The United States regarding pesticide residues in strawberries from Mexico. The incidence is now 5.6 times higher than previous annual average and endosulfan, acephate, dimethoate, permethrin, omethoate, methamidophos, monocrotophos, fenazaquin and dichlorvos are the active being encountered.

Issue	Date	Notifying Country
Endosulfan detected in strawberries	13/01/2016	The United Arab Emirates
Dichlorvos detected in strawberries	20/04/2015	The United States

- The presence of *Salmonella* in sesame seeds from India continues to be an issue with 50 reports in the last 12 months from 8 countries, the level currently almost 5 times higher than the previous annual average.

Issue	Date	Notifying Country
<i>Salmonella</i> Newport (presence /25g) in hulled sesame seeds from India	16/03/2016	Germany
<i>Salmonella</i> (presence /25g) in hulled sesame seeds from India	13/03/2015	Poland

(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 dissertation from Umea University suggests that there is an increased risk of listeriosis infection if food is exposed to light. Researchers have discovered that when exposed to light the *Listeria* bacterium activates protective mechanisms.

HORIZONSCAN HIGHLIGHTS: 2016 Q1 Roundup

Food fraud issues Q1 2016

- The Italian State Forestry Service has revealed that investigations in the Brindisi and Bari regions indicated that thousands of tonnes of oil may have adulterated with oils from Syria, Turkey, Morocco and Tunisia have been sold on the domestic and international markets labelled as Italian 100% extra virgin. The Italian State Forestry Service has also seized 85 tonnes of olives from the previous season which had been immersed in concentrated solutions of copper sulphate to impart an intense green colour before sale. Levels were found to be up to 70 mg/kg.
- The Italian authorities have released information regarding the seizure of counterfeit champagne carried out at the end of last year (2015). The Guardia di Finanza di Padova discovered over 9,000 bottles, 40,000 labels and 4,200 boxes of fake 'Moët & Chandon' branded champagne which has been analysed and confirmed as being sparkling white wine. It is believed the sale of the bottles would have earned around €350,000 but could have been as much as €1.8 million with the labels discovered.
- Cellulose, a perfectly edible and safe wood pulp that is used as an additive, seems to be reaching unacceptable levels in grated cheese products. Certain reports claim that less than 40% of grated cheese is actually a cheese product, while it is estimated that 20% of hard Italian cheeses in the US are mislabelled. The FDA is investigating and prosecuting cases of cheese fraud since their surprise visit to the Castle Cheeses Inc. factory in 2012, where a combination of cheap substitutes and fillers were being packaged as 100% real parmesan. On the other hand, Italian producers are fighting against the food manufacturers in the US who use their names of cheeses and Italian flags to sell American made cheese.
- Authorities in Ghana are investigating allegations of palm oil adulteration. Following a market survey carried out by students from Kwame Nkrumah University of Science and Technology concerns were raised that some people were soaking millipedes in palm oil to improve the sweetness and colour.
- Research carried out by the University of Toulouse has found that over 50% of tested botanical slimming supplements, labelled as 100% natural, actually contain pharmaceutical ingredients such as laxatives and appetite suppressants. Pharmaceutical ingredients are not permitted in food supplements under European law.
- 6 people have been arrested and 13 are under investigation following a Spanish investigation (involving Interpol) into illegal fishing being carried out by a fleet of 3 illegal vessels. 15 other countries have also started investigations into criminal activities linked to the three ships.
- The initial results of Operation Opson V have been released by Interpol. Operation Opson V was conducted between November 2015 and February 2016 and resulted in the seizure of more than 10,000 tonnes and 1,000,000 litres of counterfeit and illicit food and drink across 57 countries. This included 85 tonnes of green olives 'painted' with copper sulphate, 9 tonnes of counterfeit sugar contaminated with fertiliser and tens of thousands of litres of fake alcohol, amongst other things.

BRC 7 – the implications and how HorizonScan can help you

The BRC Global Standard for Food Safety has been revised and was re-issued as version 7 in January 2015 and audits commenced 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. The horsemeat scandal and publication of the Elliott Report have brought about a sea-change in public perception and manufacturers' attention to global sourcing, quality and authenticity, with a significantly increased focus on their entire supply chain from raw material to packaging and shelf-life. With a global database of raw material and commodity issues across all food integrity areas running from 2002, HorizonScan can help put your mind at rest when you need to illustrate pro-active monitoring of supply chain issues, be it fraud and authenticity concerns, pesticide or veterinary drug residues, environmental and other contaminants, microbiological problems or allergens.

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