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FSA issues warning over frozen sweetcorn

The Food Standards Agency, Food Standards Scotland, Public Health England and Health Protection Scotland are reminding people that most frozen vegetables, including sweetcorn, need to be cooked before eating, especially if adding them to salads, smoothies or dips.

The joint agency communique stated that people should always follow manufacturers' instructions when preparing their food. If the product is not labelled as "ready to eat", the cooking instructions should always be followed before eating the food hot or cold.

Frozen sweetcorn has been identified as the source of an ongoing outbreak of Listeriosis affecting several European countries including the United Kingdom. The outbreak has been traced to a vegetable processing company in Hungary which is owned by the Belgian company Greenyard Foods.

The outbreak has highlighted a number of topics. The use of whole genome sequencing (WGS) to investigate historical outbreaks. How food can be produced and packed in different countries thus making European collaboration essential in tracing these types of outbreaks. The appropriate use of specifications for foods classified as ready to cook, and the world-wide distribution of foodstuffs.

The possibility of a European wide outbreak surfaced last October and November when human Listeriosis cases from the UK, Finland, Sweden, Denmark and Austria were identified as having the same serotype and WGS profile. L. monocytogenes was subsequently detected in batches of frozen sweetcorn from Finland with the same WGS profile. The sweetcorn was produced in Hungary and packed in Poland. People suffering from Listeriosis in both Finland and Sweden have stated that they had consumed frozen sweetcorn. In total 47 cases across 5 countries of Listeriosis being caused by the same serotype and WGS strain have been reported over the last 4 years. In common with other outbreaks of Listeriosis, there has been a high recorded mortality rate and from the 44 cases there has been 9 recorded fatalities. The PHE have stated that this is the first multi-country European outbreak of Listeriosis to have been identified by WGS, and provides unequivocal evidence that isolates are related and come from a common source and have been present in the food chain for 2-3 years.

The latest reports state that 107 countries have received recall notices. This illustrates the complexities of the way in which food can be processed as some countries have re-exported some of the products to other countries and some have reprocessed original products into other products under different brands. All this is contributing to making the traceability and recalls more complex, the cost of which is currently estimated to be 30 million euros.

All of which begs the question, if a product is manufactured in a low care facility and is sold as ready to cook, should the manufacturer suffer financially if the consumer ignores the cooking instructions and consumes the product as ready to eat? This outbreak may lead to improved education and communication on what products can be safely consumed without further processing and what will always require cooking before consumption.

Traditionally organisms like Listeria are not tested in foods which are to undergo further heat processing before consumption, but perhaps this may need to change if a microbiological risk assessment of the product reveals the possibility that the consumer may be tempted to consume part or all of the product in its raw uncooked state. An example of this is seen in chilled ready to cook pizza's where manufacturers and retailers have identified that consumers may be tempted to "graze" on a piece of grated cheese or pepper on the surface of the pizza before cooking.

Salmonella agona. European-wide outbreak linked to cucumbers

A multi-country outbreak of Salmonella (S. agona) is under investigation in the European Union, with cases retrospectively identified back to 2014. Overall, 147 outbreak cases have been reported by five EU countries: 122 cases since 1 January 2017, and 25 historical cases between 2014 and 2016. The United Kingdom has reported the most outbreak cases (129), with Finland (15), Denmark, Germany and Ireland (one case each) reporting the other cases.

The European Centre for Disease Prevention and Control (ECDC) stated that based on the information available, the microbiological evidence suggests ready-to-eat products containing cucumbers as a possible vehicle of infection but so far it has not been possible to identify the specific point in the production chain where the contamination occurred. Further investigations along the food chain are therefore needed to identify the source of contamination.

Until the source of infection and the specific point of contamination along the food production chain have been identified and controlled, new outbreak cases may occur, with a high likelihood that the outbreak strains will re-emerge in early 2019, as observed in the seasonal occurrence of cases in previous years.

A joint rapid outbreak assessment produced by the ECDC and the European Food Safety Authority (EFSA), published on the 26 July 2018, provides further information about the outbreak. https://ecdc.europa.eu/en/publications-data/rapid-outbreak-assessment-multi-country-outbreak-salmonella-agona-infections

Several ALS laboratories in the UK were instrumental in the detection and identification of the organism in some of the contaminated products mentioned above.

Food borne Vibrion vulnificus infections

There is an increasing number of reported cases of food borne illnesses caused by Vibrio vulnificus. Experts have warned that the rise in sea temperatures due to global warming may result in an elevated number of infections caused by this organism.

In the latest example, a 71 year-old man died after contracting an infection caused by Vibrio vulnificus following the consumption of raw oysters at a restaurant in Florida.

The cause of E coli 0157 outbreak revealed

A retrospective case study into an outbreak of E coli 0157 in July 2016 which affected 56 people has linked the outbreak to the consumption of baby mixed leaf salad. The study used a technique called ingredient based analysis, whereby the affected individuals are asked to fill out a questionnaire on what they have consumed, but the investigators looked at what individual components may have made up the purchased or restaurant meals and try to identify a common ingredient. In this case baby mixed salad leaf was the only common ingredient across all of the reported cases.

The report cites the large E coli 0104 outbreak in Germany in 2011, where all of the cases in the ingredient based study were found to have consumed beansprouts (opposed to a previous case control study in which only 25% of cases could remember eating that particular ingredient). As the beansprouts were served as garnish or in side salads accompanying main dishes, consumption or the 'concealed exposure' of this ingredient was likely to have been forgotten.

Simple solution is often the best

Often a simple invention leaves you wondering why no one has ever thought of it before. Reported in Science Daily, a research team has proposed a simple new solution to the colonisation of food manufacturing equipment by trapping a thin layer of cooking oil at the metal surface to fill in microscopic scrapes, cracks and fissures and create a barrier to bacterial attachment. This solution resulted in a 1,000x reduction in bacterial levels inside the industrial machines tested.

Always remember to close the toilet seat when flushing

Advice was publicised this month on the dangers of faecal bacteria being spread around the bathroom when toilets are flushed before the toilet lid has been put back down.

Not the most appealing of mental pictures, but this should come as no surprise as it follows previous advice on not to wash raw poultry under a running tap because of the dangers of cross contamination of Campylobacter, and the good food industry practice of not using high pressure hose pipes in high risk areas due to the dangers of aerosols spreading bacteria such as Listeria from floors and drains onto food contact surfaces.