

Survey of cadmium in brown meat from crabs and products made with brown meat from crabs

Area of research interest: [Chemical hazards in food and feed](#)

Study duration: 2013-01-01

Project code: FS102010

Conducted by: CEFAS

Background

Cadmium is a heavy metal that occurs naturally in the environment and is released as a result of weathering of rocks and volcanic emissions. Human activities such as waste incineration and use of fertilisers have increased the background levels of cadmium in water, soil and living organisms.

In 2011, the European Commission recommended that Member States should provide advice to their consumers on the consumption of brown meat from crabs, as it can contain high levels of cadmium. This survey provided current data on cadmium levels in brown meat from crabs and related products on sale at retail in the UK.

Research Approach

Our survey measured cadmium levels in 397 samples of brown meat from crabs and products made with brown meat from crabs, purchased from 20 randomly selected locations throughout the UK and from online retailers. The samples consisted of: 201 samples of brown meat, 60 samples of dressed crabs, 61 samples of crab pastes and spreads, 59 samples of crab pâtés, terrines and potted crab meat and 16 miscellaneous products.

Additionally, 56 live crabs, originating from four geographic locations in the UK, were purchased from Billingsgate Market in London. The different components of the brown meat (hepatopancreas and 'other organs') were analysed separately to confirm the main source of the cadmium in the brown meat.

Results

This survey showed a wide range of cadmium levels in each of the different product categories, with the largest range measured in the samples of brown meat from crabs (0.11-26mg/kg).

The results confirmed that the majority of the cadmium in the brown meat is located in the hepatopancreas (a component of the brown meat). This accumulation in the crab's hepatopancreas is due to the detoxifying function of this organ.

Further information on this survey can be found in the Food Surveillance Information Sheet under related items.

Research report

England, Northern Ireland and Wales

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