



Industry/Developments

COUNTERFEITING: (1) A US packaging research association has predicted an overall 3% year-on-year increase in the incidence of fake goods being offered for sale: in the counterfeit segment, in terms of value, pharmaceuticals are number 1 and food number 4.

[<http://www.pmmi.org/News/PRDetail.cfm?ItemNumber=33301>].

(2) In China, 50 factories are under investigation after inspections revealed (counterfeit) Nestlé and Knorr brand packaging being used to pack (counterfeit) sauces and flavourings. These were made with ingredients unfit for human consumption, such as industrial salt: it appears that production had been going on for over 10 years, but sales seem to have been confined mostly to China itself.

[<http://www.scmp.com/news/china/policies-politics/article/2062536/leftovers-industrial-salt-used-make-fake-branded-food>].

VITAMIN D: A recent study in the Netherlands on 29 fortified foods and 15 supplements showed actual vitamin levels for the first to be in the range 50–153% and for the second 8–177% – of the values declared on the label; both inadequate and excess intake can lead to health problems. Overall, only three of the 44 products tested fell outside the tolerance limits given in EU legislation. Full analytical method details were provided.

[<http://www.sciencedirect.com/science/article/pii/S030881461631977X>].

URINE TESTING: A UK universities collaboration (Imperial, Newcastle and Aberystwyth) has resulted in the announcement of a quick test to determine the levels of consumption of fat, sugar, fibre and protein. The test detects metabolites of the target food categories and looks to be a more reliable way for tracking people's actual diets than relying on questionnaires – where entries are often creatively influenced by 'wishful thinking'. The test is expected to be widely available in about two years.

[http://www3.imperial.ac.uk/newsandeventspggrp/imperialcollege/newssummary/news_13-1-2017-9-30-34].

SEAWEED: Following the launch of pasta in 2014, ‘bacon’ made from seaweed (harvested in France and Ireland) has now been launched. [<https://seamorefood.com/iseabacon/>].

SUGAR: (1) In Israel, inert mineral particles have been coated with sugar to yield something that tastes like pure sugar but has significantly less actual sugar present and therefore ingested. The particles are micron rather than nano-sized so do not need additional labelling to comply with EU 1169/2011. The company, DouxMatok, has patented the process and thinks the product will eventually sell at roughly the price of normal bagged sugar. It will probably first appear in prepared foods – such as juices, jams and cakes – before being offered as the material itself in the market in 2018.

[<http://www.douxmatok.com/>].

(2) After the announcement of a forthcoming sugar tax, health campaigners are now concerned that, within the EU, sugar quotas (restrictions on production of sugar) come to an end in October 2017 – with possible increases in sugar production and a drop in price.

Of course, outside of the EU, the UK may well have access to cheaper sugar from all over the world – but either way, the sugar tax may not be as painful as was first thought.

(3) In experiments on rats fed either glucose or fructose, it was found that although glucose consuming rats took in more calories, it was the fructose consuming rats that put on the most weight: they also showed more markers of heart disease and liver damage than the glucose consumers. Of course, sucrose supplies both sugars – but it appears that fructose (‘fruit sugar’=‘good’) may be the more significant contributor to the undesirable consequences of excessive sugar consumption.

[*Type of supplemented simple sugar, not merely calorie intake, determines adverse effects on metabolism and aortic function in female rats*, <http://ajpheart.physiology.org/content/312/2/H289>].

TITANIUM DIOXIDE: Used as a source of white colour or opacity in foods (E171), the substance has long been regarded as an inert and safe additive. Now research on animals in France has established that nano-sized components of E171 can enter the bloodstream and end up in organs such as the liver, where they were found to cause non-malignant growths (these growths may be the first stages of something more significant). The UN's International Agency for Research on Cancer (IARC) has classified it as a possible human carcinogen.

[*Food-grade TiO₂ impairs intestinal and systemic immune homeostasis, initiates preneoplastic lesions, promotes aberrant crypt development in the rat colon*, <http://www.nature.com/articles/srep40373>].

Analysis

Legislation/Official Reports

MEAT PRODUCTS LABELLING: FSA have put out Guidance Notes on the labelling of these, with useful links to compositional requirements.

[<https://www.gov.uk/guidance/meat-products-sell-them-legally-in-england>].

ACRYLAMIDE: This has now reached public attention, with the FSA launching a campaign *Go for Gold* – to educate people in how to avoid excess acrylamide in home cooked food (gold rather than brown colour in high temperature cooked foods). Research has established that most consumers are unaware of acrylamide or its association with cancer.

[<https://www.food.gov.uk/news-updates/news/2017/15890/families-urged-to-go-for-gold-to-reduce-acrylamide-consumption>].

[<https://www.food.gov.uk/science/acrylamide-0>].