


Welcome and Introduction

Dr Julian Braybrook, Government Chemist



2018 Government Chemist conference
Food chain resilience in a changing world



13 - 14 June
London

A reminder about the food and drink sector



- It is the largest manufacturing sector in the UK
- With the wider food chain, it contributes £112bn GVA
- It employs 1 in every 8 people across the UK
- It is built on a sound backbone of strong agricultural and manufacturing foundations
- It is part of all local economies and devolved administrations
- It is world-renowned for sustainable, affordable, safe and high-quality food and drink

However.....

- About a third of the food produced globally is wasted, most of it at the consumption level
- At the same time, 2bn are malnourished, 815mn chronically hungry
- The maths is clear*: a 50% decrease in food waste equates to 15% more food available in the supply chain

*assumes each non-produced and non-wasted food product means less demand, less resources used and lower environmental impact

The focus for this conference

- A switch to a more sustainable supply chain is an economic, environmental and ethical imperative
- A more efficient and resilient food supply chain could reduce the pressure for higher intensification in food production otherwise needed to address the increasing world population

Drivers for industry needs



Supply chain	<i>Primary production, raw materials and ingredients</i>	<i>Manufacturing and supply</i>	<i>Product and packaging</i>	<i>Food, drink and the consumer</i>
Sustainability, resilience and food security	Producing and securing 'more with less'	Assuring efficient and resilient manufacturing and distribution	Delivering safe and compliant products that minimise waste	Building consumer trust in the supply chain and its management

Relevant current research and capability building contributions by the GC programme

- Guidance on systems for assuring, and methods for verifying, the identity, authenticity & labelling compliance of raw materials, ingredients and products
- Rapid and reliable verification of 'authenticity' attributes and - where problems arise - distinguishing between adventitious contamination & deliberate substitution/fraud
- Better in-line and near-line analytical methods for relevant parameters (factory safe, portable test kits etc)
- Support for assessing risks to help target product analysis
- Building and retaining consumer confidence and trust in business integrity, processes and practices

GC annual review

Report on GC activities

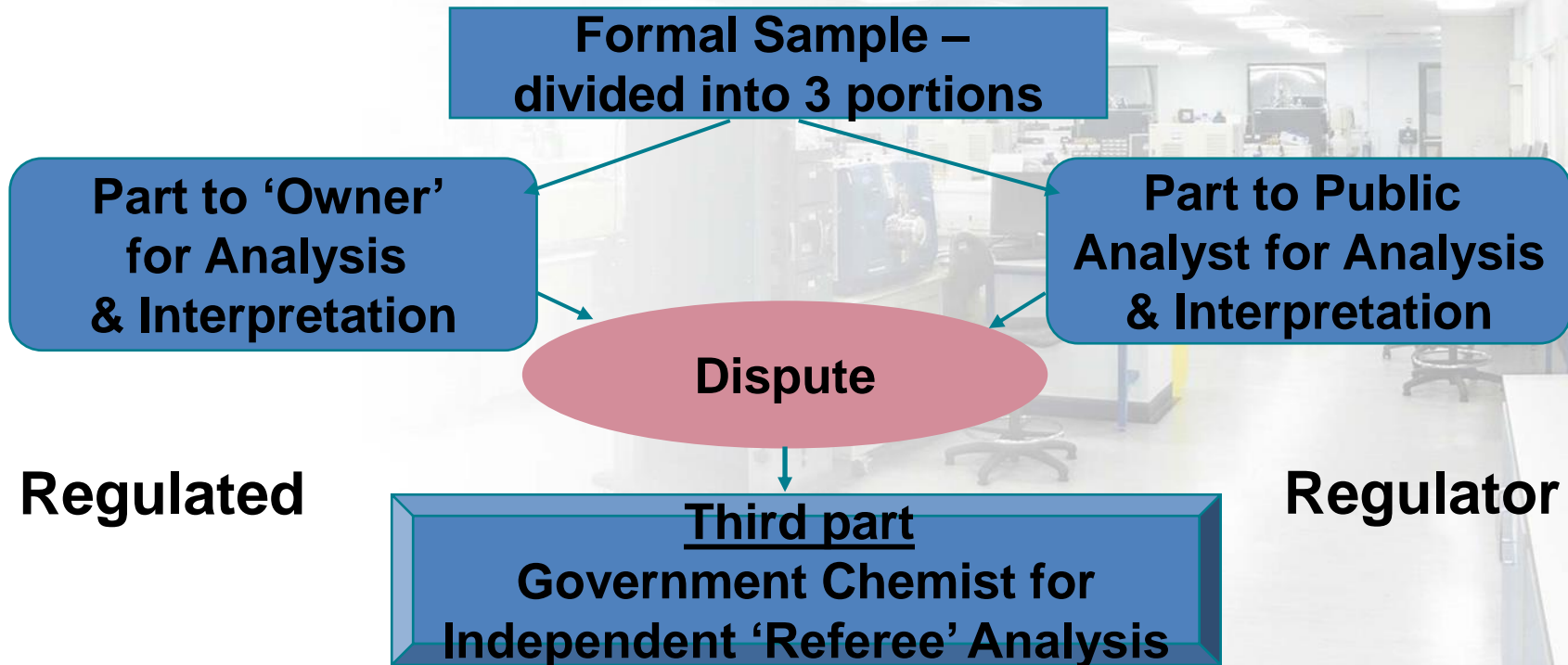
- > Report signed off by the Secretary of State; hard copies at Westminster and Holyrood
- > Content
 - Referee cases
 - Research and capability building activities
 - Knowledge transfer and dissemination activities
- > 2016 annual review emailed (800)
 - Published on GOV.UK (>200 downloads) (www.gov.uk/government-chemist)
 - Promoted on LGC website
- > Current design and content of 2017 review is agreed and awaiting sign-off



Government Chemist statutory function

UK Formal Sampling & Analysis

Food Safety Act 1990, The Food Safety (Sampling and Qualifications) Regulations 2013, Section 79 of the Agriculture Act 1970 etc



Government Chemist advisory function



➤ 56 requests for advice received in the year

➤ Requests come from

- Government officials
- Official Control Laboratory
- Journal/press/radio

BBC – analysis of microplastics in bottled water

Radio Cambridgeshire – prohibited & restricted artificial colours found in takeaways

- Commercial organisations or consultants
- Commercial laboratory
- Academia



- Other
- Food composition
- Authenticity / Identification
- Manuscript review, articles, etc
- Government Chemist
- Allergens
- Jelly mini-cups
- Food safety
- GMO
- Parliamentary question

Regulatory updates

- Regularly published on GOV.UK webpages
- Food and feed law updates:
Review of developments in food and feed law and related scientific and regulatory issues that affect the UK
- CEN updates:
Summary of changes to European standards and technical documents that affect those carrying out chemical measurement in support of regulation

News story

CEN updates affecting chemical measurements January 2018

>180 reviews

Legislation review (July to September 2017) - GOV.UK - Google Chrome

www.gov.uk/government/publications/food-and-feed-law-legislation-review-july-to-september-2017

Research and analysis

Food and feed law: legislation review (July to September 2017)

>200 downloads

Second quarterly report providing information and updates on UK food and feed law and related scientific and regulatory issues

Published 19 December 2017

From: [Government Chemist](#)

Documents



[Food and feed law: Compendium of UK food and feed legislation with associated context and changes during July - September 2017](#)

PDF, 840KB, 68 pages

This file may not be suitable for users of assistive technology. [Request an alternative format](#)

Related content

Collection
[Food and Feed Law: legislation review](#)

Policy
[Food and farming industry](#)

Case studies



Wednesday 18 April, 9.30am-4pm
#b-research-in-action.eventbrite.co.uk



The Journal of the Institute of Food Science & Technology

Veterinary residues in food

Tue, 30/05/2017 - 14:16 | Izabelanair



Michael Walker and Kirstin Gray of LGC discuss why and how veterinary residues are controlled in food and describe current problems arising from technical appeals to the Government Chemist in this area.

Go to FS&T or
browse the
archive

[Click here](#)



Become a member of the Institute of Food
Science and Technology

FIND OUT MORE INFORMATION >>

Research in Action:

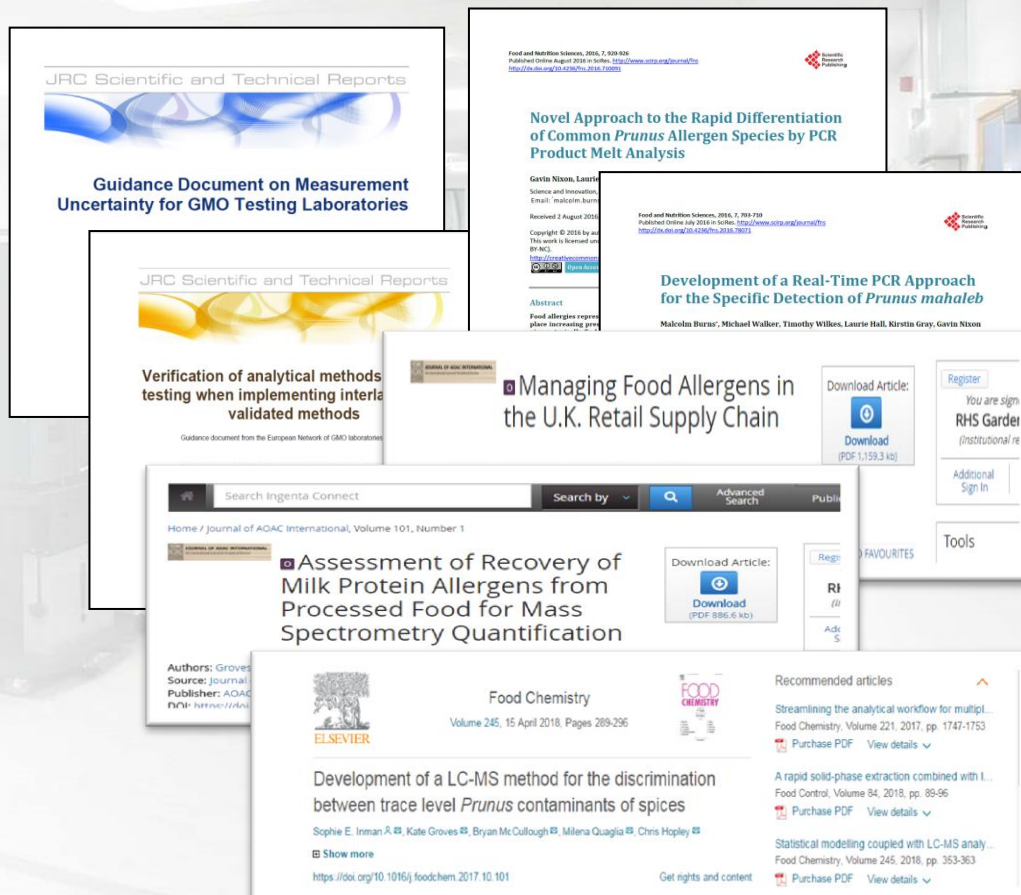
Innovation and Impact Showcase

- Chondroitin supplements
 - Published on JAOAC
- Jelly confectionery
 - IFST journal
- Veterinary residues
 - IFST Journal
- Manuka honey
 - Journal food analytical methods
- Fruit liqueurs – alcohol tolerances
 - GC website

Consultations, Guidance and Publications



- Response to Government consultations
 - FSS draft guidance on shellfish toxin controls for the scallop sector
 - FSA post-implementation review of the Food Safety (Sampling & Qualifications) (England) Regulations 2013 (SI 264)
- Production of guidance documents
 - Prunus allergen species
- Book chapter contributions
 - RSC book on DNA approaches for food authenticity testing
- Peer reviewed journal publications
 - Cumin and paprika cases; Allergen detection; GMOs; Food fraud
- Website articles
 - Peer reviewed paper: Coeliac disease and the availability of gluten-free food (>800 downloads)
 - Peer reviewed paper: Review of methods for coffee bean authenticity testing (>800 downloads)



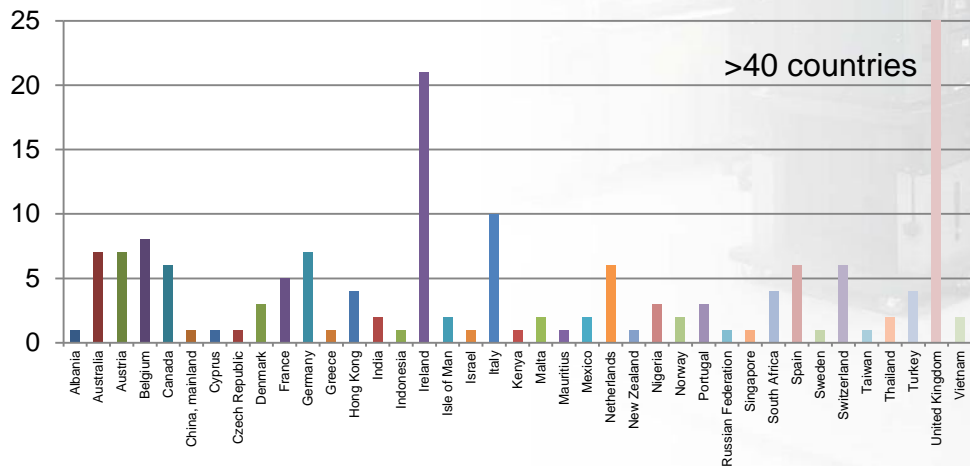
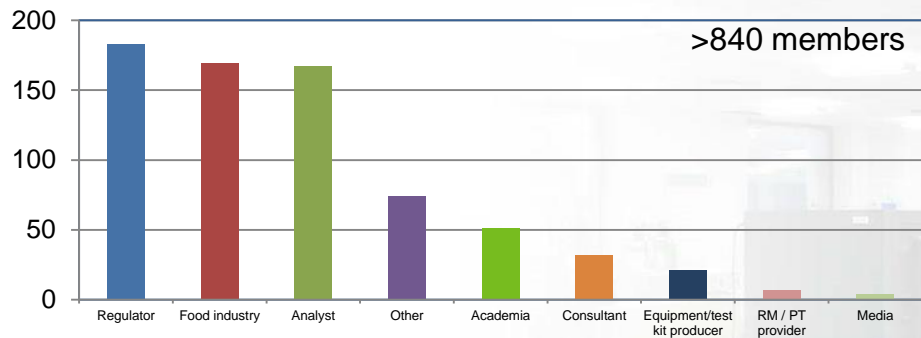
Training



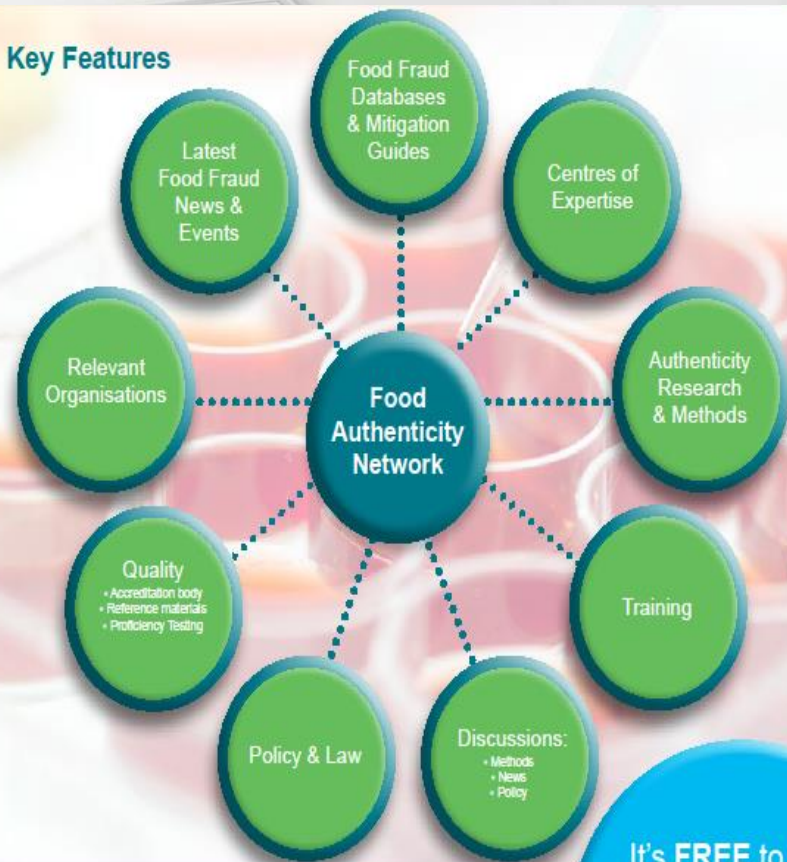
- **Food analysis & examination**
 - Joint activity with APA Educational Trust at Reading University, April 2017
 - 13 delegates including overseas territories
- **Best measurement practice guidance for DNA extraction from problematic matrices**
 - Co-organised workshop with EURL-GMFF at JRC Ispra, June 2017
 - 40 participants from 19 EU member countries + Mexico, Ecuador, Brazil



- **Knowledge transfer project 2017-2020**
 - Workshop on allergen detection in spices and herbs using multi-technique approach (February 2018)
 - On-going e-seminars on advanced DNA extraction techniques and qPCR, dPCR & NGS assays
- <https://www.youtube.com/watch?v=Ks7uT9j6HTE>



Key Features




The Food Authenticity Network is funded by DEFRA, the Food Standards Agency and Food Standards Scotland

It's **FREE** to join
so sign-up today
www.foodauthenticity.uk

Please enjoy the conference

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