



Julian Braybrook

Government Chemist

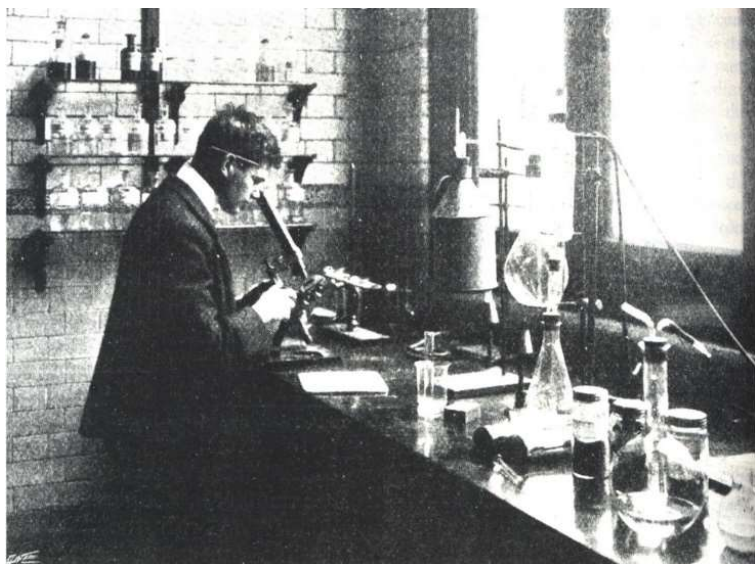
Director, National Laboratories, LGC

Welcome and introduction

Date: 20 June 2023

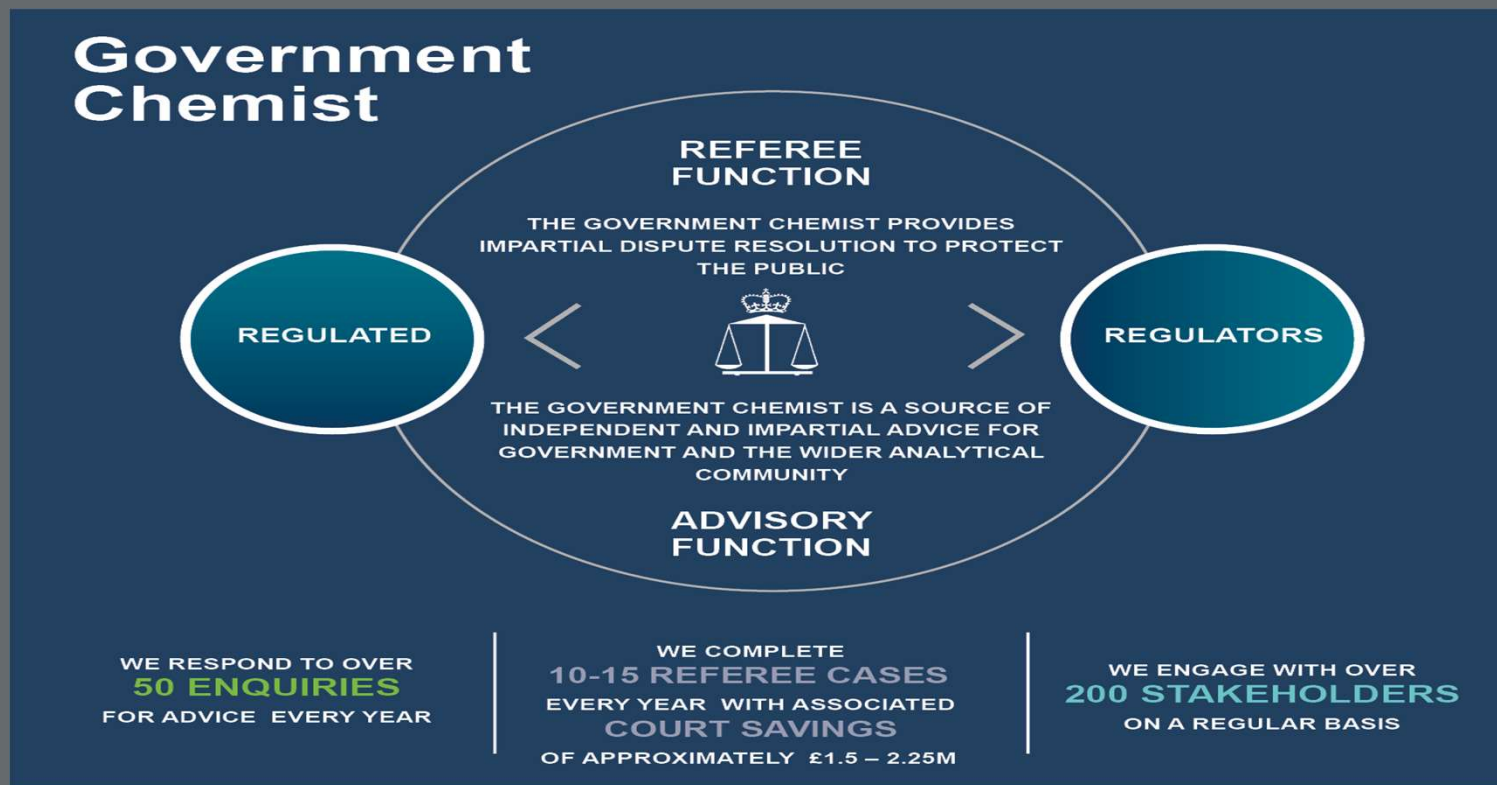


UK food law and the Government Chemist



- The first Adulteration Act passed by Parliament in 1860, amended 1872 to include appointment of Public Analysts (due to lack of definition of adulteration)
- Parliamentary Select Committee, 1874 proposed a central referee - 'Chemical Officers of Somerset House'
- The Sale of Food and Drugs Act in 1875, amended 1879 and 1899

The Government Chemist today



The Government Chemist today



Referee Function

Providing definitive resolution of increasingly complex referee cases in a timely manner, in line with the Government Chemist referee sample submissions policy, through the deployment of scientific and technical expertise and world-class measurement science.



Advisory Function

- » Working collaboratively with the UK Government to provide measurement science advice on matters of national and international importance
- » Ensuring an agile advisory function that has the capacity to respond to the increasing numbers and breadth of requests from stakeholders
- » Continuing to lead and influence the development of national and international standards, policy and regulation to ensure that they are based on sound measurement science.



Horizon Scanning

Monitoring national and international regulatory developments through horizon scanning activities and keeping track of global changes to ensure that new unmitigable risks are not introduced into the global food supply



Knowledge Transfer

Continue to work collaboratively to share findings with all stakeholders, using a number of different formats, ensuring a 'level playing field' and helping to prevent future disputes.

GC Advisory Function – CBD



- **Cross government body and regulator collaboration (FSA, Home Office, OPSS, FSS, DSTL)**
- **National and international control laboratory analytical competence**
- **Expert advisory role:**
 - best measurement guidance on interpretation and analytical limits to the Advisory Council on the Misuse of Drugs (ACMD) and UKAS CBD Food Product Approval Awareness Expert Group supporting lab accreditation
- **Capability building in PA OIs**
- **Training / Knowledge transfer:**
 - Open access CBD e-seminar through Joint KT Framework for Food Standards and Safety
 - CannLearn, an app-based, bite-size series of courses for industry and regulatory bodies (in partnership with Dr Ehrenstorfer)



GC Advisory Function – Honey



- **Cross-government collaboration since 2019 Honey seminar convened by GC**
- **GC publications in Nature Portfolio Journal proposing weight of evidence approach for enforcement**
- **Several e-seminars:**
 - Global Honey Supply chain
 - Exogenous sugars by NMR
 - Databases
 - IRMS
- **The OGC Chairs the Defra WG on Weight of Evidence**
- **The OGC Chairs the GC WG on Sampling Protocol**
 - ISO Bee Committee is proposing developed protocol as a new work item
- **The OGC Chairs the GC WG on Framework for Database Interrogation**

GC team publishes scientific papers on honey authentication

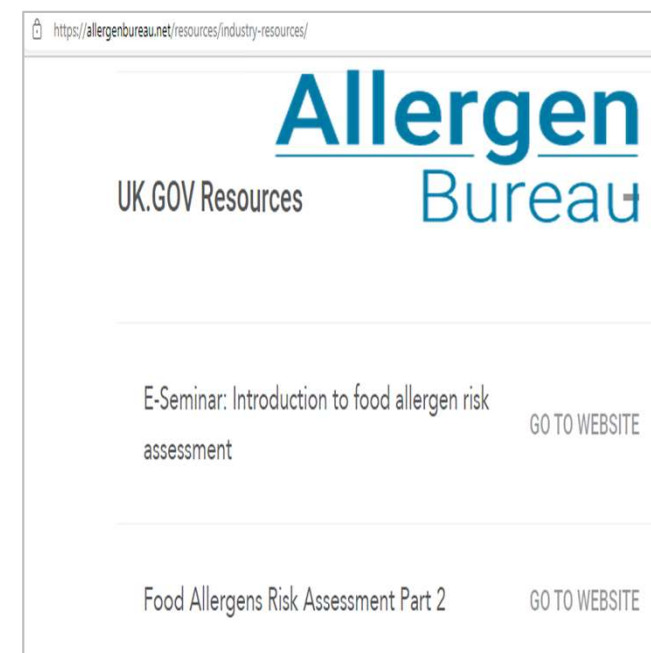
The UK Government Chemist team has recently had two significant scientific papers published in Nature Portfolio Journal, npj-Science of Food, highlighting the increasing complexity of honey authentication



GC Advisory Function – Allergens



- The OGC contributed to the FSA horizon scanning exercise for their research prioritisation approach to addressing food hypersensitivity
- The OGC collaborated with the ILSI Europe Expert Group guidance for quantitative risk assessment (QRA) of cross contamination by food allergens
- The OGC contributed to the IFST Food Allergens Knowledge Hub's evidence-based allergen resources
- OGC quarterly catch-ups with Allergen Bureau/FSA/FSS
- GC output signposted on Allergen Bureau website
 - Webinar: Analysis for substances causing food hypersensitivity
 - Eseminar: Food allergens risk assessment - Part 2
 - E-Seminar: Introduction to food allergen risk assessment
 - E-Seminar: Analysis for substances causing food hypersensitivity – to be published.
- Potential collaboration on microlearning training tools



GC Advisory Function – Food Crime



1. National Food Crime Unit (NFCU)

- The OGC was part of the recent review of the NFCU

2. Scottish Food Crime and Incidents Unit (SFCIU):

- The OGC peer-reviewed the FSS Food Crime Risk Profiling Tool
- The OGC presented at the meeting of Global Alliance on Food Crime
- Agreement for Global Alliance presence to be created on the Food Authenticity Network (FAN)

3. NFCU & SFCIU running a ‘deep dive’ on food crime today, at this conference

Government Chemist contributes to review of the National Food Crime Unit

Selvarani Elahi MBE, deputy Government Chemist, formed part of the team tasked with the review of the activity of the National Food Crime Unit in 2022

From: [Government Chemist](#)

Published 15 December 2022



Horizon Scanning

- Quarterly reviews on developments in food and feed law and related scientific and regulatory issues produced
- Also reported via GC quarterly reports:
 - Updates on technology horizon scanning activities conducted throughout GC Programmes



Knowledge Exchange

- GC Annual Review 2022 to be published shortly following Ministerial approval
- Quarterly webinar series of Joint KT Framework for Food Standards and Food Safety Analysis
- MChemA residential course conversion to online platform
- Contributed to POST Parliamentary Reports inc. Food Fraud; Gene editing; AND Environmental impact of, and risks for, the food production system
- Food fraud mitigation resource created under the Food Authenticity Network



Supporting the regulation of novel foods containing CBD (cannabidiol) to protect consumers & legitimate businesses



The Government Chemist (GC) provides technical advice, measurement expertise and leadership to bring together government bodies around common interests in food and feed to support consumer safety, address industry requirements and support regulatory development.

UK Parliament POST

POSTNOTE
Number 624

Food Fraud



Overview

- Food fraud includes intentional adulteration and mislabelling of food for financial gain.
- It has a financial and reputational impact on businesses and may pose a health risk to consumers.
- Responsibility for preventing food fraud is spread between industry, local authorities, and government departments and agencies.
- Strategies to prevent food fraud include scientific analysis to test food authenticity, supply chain risk assessment and data-led strategies such as intelligence gathering.
- EU exit may affect UK access to food fraud intelligence networks.

Background

A 2017 survey by the Food Standards Agency found that consumers have confidence in the UK food system and perceive it to be safe.¹⁻³ However, it is still vulnerable to fraud.¹ Food fraud includes intentional adulteration or mislabelling of food for financial gain.² Although it is difficult to quantify the impact of food fraud,^{4,5} estimates of the annual global trade in

investigate food crime,¹⁴ and the establishment of the Food Industry Intelligence Network (FIIN) in 2015.^{20,21} Despite these moves, some stakeholders have suggested that the NFCU has insufficient powers and that more resources are needed for local authorities.²²⁻²⁷ There are also concerns that EU exit could make the UK vulnerable to future food fraud incidents.²⁸⁻³²

Cannabidiol (CBD)

- CBD plant extract or plant isolates have gained salience as an ingredient in high street and online food supplements and some cosmetics
- CBD edible products now regulated as novel foods in the UK
- CBD is a non-psychoactive cannabinoid present in the cannabis plant (*Cannabis sativa* L.)
- CBD is not a controlled drug but during manufacturing, other cannabinoids and products, some of which are psychoactive, may co-extract.

Government Chemist brought developing methods of

Food Authenticity Network

government.chemist@lgcgroup.com
gov.uk/government-chemist



government.chemist@lgcgroup.com
gov.uk/government-chemist



Stakeholder Consultation



>300 ideas were gathered in an initial brainstorming phase, before prioritisation to:

- Food authority and food fraud prevention
- Food security
- Alternative proteins
- Contaminants in novel foods, packaging and recycled materials
- Environmental claims/food labelling
- Gene editing/GMOs
- Effective use of data
- Enhance surveillance
- New regulation for novel foods
- Skills – gaps, availability and training

<https://www.gov.uk/government/publications/government-chemist-stakeholder-workshop-report-2022>





Government Chemist Strategy

2023 – 2026



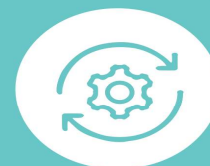
Department for
Science, Innovation
& Technology

Strategy 2023 - 2026

Protecting
consumers
in increasingly
challenging times



Supporting business
and government
across the four
nations of the UK



Collaboratively
building a resilient
national skills base



Maximising UK
measurement
expertise to address
global challenges

