

23 September 2018

Professor David McDowell
Advisory Committee on the Microbiological Safety of Food
c/o Food Standards Agency
Floors 6 & 7, Clive House
70 Petty France
London SW1H 9EX



Dear Prof McDowell,

PESTICIDE RESIDUES MAXIMUM RESIDUE LIMITS - POTENTIAL IMPACT ON FOOD SAFETY

Thank you for inviting comment on this important issue.

The Food & Biocides Industry Group (FBIG) comprises some 20 UK trade and professional organisations from farm to fork working together to ensure that legislation does not negatively impact on the availability of effective disinfectants vital to assure food hygiene through the food chain. Many organisations participating in FBIG received your invitation to comment, and have agreed this submission.

FBIG has developed free guidance on [The Use of Biocides in Cleaning and Disinfection](#)¹, which is being used by the Global Food Safety Initiative, is leading lobbying in the UK, has made submissions including on the EU's Plant Protection Products legislation REFIT exercise, has provided briefing to the HSE as the UK representative in EU-level discussions, and has a publicly available [position paper](#)² focusing on regulatory issues in relation to biocides, and in particular, chlorates.

Ensuring the microbiological safety of our food system is critical to public health. One of the key factors in microbiological control is hygiene for which the use of biocides is critical. Therefore, it is important to have a realistic assessment of actual relevant risks from the use of biocides.

Major UK Food Business Operators (FBOs) have for several years been successfully, but often at significantly increased expense, addressing the questions now raised by ACMSF given that these issues were first highlighted as a matter of urgency by industry to ACMSF in October 2015, and earlier, in summer 2014, to FSA.

Food safety is paramount, therefore it is not in the interest of either consumers or the industry for legislation to threaten the continuing ability of FBOs to assure food safety.

Great care needs to be taken when formulating legislative requirements to ensure that food safety is not compromised. This is why the industry/FBIG has been lobbying on this issue for some considerable time.

It is important to note that the UK has a challenging approach in applying plant protection products (PPP) legislation to composite and processed products, and testing for traces of hygiene biocides in them. This is, in our view, incorrect application of PPP legislation.

At this point in time it would be of most benefit to UK plc if current developments in EU legislation in which UK government departments/agencies are engaged (e.g. Drinking Water Directive RECAST, development of MRLs

¹ <https://www.chilledfood.org/wp-content/uploads/2018/08/Biocides-Cleaning-and-Disinfection-working-document-industry-guidance-18-10-16-with-updated-best-practice-example-FBIG-logo-in-progress.pdf>

² <https://www.chilledfood.org/wp-content/uploads/2016/02/Biocides-UK-industry-position-statement-all-logos-10-March-2016.pdf>

for chlorate in commodities through PPP legislation), are communicated in a timely manner to the biocides and food industries to enable them to assist the UK in securing legislation that does not compromise public health including by threatening microbiological standards.

Q1 If food businesses have stopped using QACs, what alternatives are they using for disinfection and sanitisation?

Food businesses in membership of trade associations that are part of FBIG were advised at the time of the change made to QAC PPP legislation in August 2015.

However, businesses such as many in the hospitality industry are relying mainly on their chemical suppliers to provide support. Businesses are required to provide safe food and take heed of microbiological risks, for example, by following FSA *E. coli* guidance which specifies disinfection. It is understood that within the industry some changes have already been made, and companies may be avoiding using QACs or are rinsing / drying surfaces after application. This could add another layer of microbiological risk (and potentially a legal risk) if the alternative means of disinfection is not satisfactory or if rinsing or drying is not applied correctly.

The industry in some cases, FBOS may rely on chemical suppliers to provide chemicals and methods of application which are safe to use in their normal circumstances of trade.

QACs are the most effective biocides with respect to *Listeria monocytogenes* (Lm), and have extremely low human toxicity, are less corrosive to equipment materials than many alternatives, and are extremely cost-effective.

Given the decades of proven safe usage for equipment and other surface disinfection, companies have not necessarily moved away from using them in the light of the reduced MRLs, which is incorrectly being interpreted as being applicable under EU law through PPP legislation, without considering hygiene law.

Companies not using QACs are using validated alternatives containing actives cleared for PT4 (food and feed) or PT5 (drinking water) use under the Biocidal Products Regulation 528/2012. However, this introduces significant issues. For example, amphoteric compounds can be as effective as QACs against *Listeria monocytogenes*, and are being used by some companies despite their cost being an additional approximately £50K per site *per annum* due to their being more costly *per se*, and from one-off costs arising from rewriting of cleaning instruction cards and retraining of production and hygiene staff.

The UK food and drink industry needs to have a range of suitable biocidal products available for use throughout the supply chain. However, industry has serious concerns that MRLs will be introduced for such alternative compounds, potentially compromising the future ability to assure food hygiene and safety unless this is fully taken in to consideration in the establishment of any limits.

Q2 In what food related processes are chlorine-based disinfectants used and what alternatives have been considered?

Water chlorination is a primary public health control measure internationally.

Chlorination is used to assure the hygiene of potable water, of washwater, rinsewater, irrigation water, PPP solutions, water as an ingredient, and in equipment hygiene, for example.

In produce washing it is used to maintain the hygiene of the washwater, to prevent it from becoming a source of contamination. Chlorination (or other treatments) of produce washwater do not have a direct effect on the attached produce microflora.

There are a few alternatives but none are as effective as hypochlorite (www.who.int/foodsafety/publications/micro/MRA_14_JEMRA.pdf).

Hydrogen peroxide can be used to reduce the microbial load of washwater but it results in bubble formation that can cause flotation issues in wash tanks leading to incomplete coverage of product. Peracetic acid can be used in some situations but again this is not suitable for all applications.

Other approaches, including in the field for irrigation, e.g. UV of non-turbid water, have been considered and may be used, as appropriate to the circumstances.

However, work that has been carried out to date internationally has not found any other water treatment to be more effective than chlorination (www.who.int/foodsafety/publications/micro/MRA_14_JEMRA.pdf).

Chlorination is also straightforward to use and control to ensure that minimum amounts are used to the greatest effect. Alternatives have been and are used but can pose greater risk as there is little historical information on their use. If no biocides are used then there has to be a plentiful supply of single-use potable water. This level of water usage may not be acceptable from a sustainability and environmental viewpoint.

Only PT4 or PT5 biocidal actives can be used, by EU law. As the list of approved actives is reviewed substances will only be lost from the available options. No new substances are being added to the lists.

It is therefore vital that the continued ability to use proven effective, safe and cost-effective treatments such as chlorination is maintained to protect human health.

Q3 How are food businesses achieving an acceptable balance between microbiological and chemical safety i.e. what steps do they take to minimise residue levels without compromising microbiological safety?

All biocides usage is validated, firstly in terms of efficacy (e.g. by surface and suspension testing) and specific instructions by the biocides sector, and secondly by FBOs.

Usage of biocidal chemicals is monitored by FBOs to ensure the correct concentrations are used and that there is no overdosing. Application of the chemicals is also monitored to give greatest efficacy.

Microbiological monitoring of equipment and food hygiene is standard FBO practice.

Guidance issued by the Food & Biocides Industry Group (FBIG) in 2016 (enc) sets out approaches to minimise traces of biocide being carried through into foods.

This approach is being taken up by the Global Food Safety Initiative, which last year established a Technical Working Group on Chemicals in Food Hygiene.

Q4 What monitoring is being carried out and/or additional information being generated, to ensure that changes in biocide usage do not increase the risk of food poisoning?

All biocides usage is validated in terms of efficacy.

Microbiological monitoring of equipment and food hygiene is standard FBO practice, and for RTE foods where *Listeria monocytogenes* is a hazard, it is required by law to be monitored and trended (EU Micro Criteria for Foodstuffs Reg 2073/2005).

Indirect monitoring of efficacy can include pH levels of wash water, concentrations of chemicals and also microbiological testing for process hygiene indicator organisms e.g. TVC/ACC, Enterobacteriaceae or generic *E. coli*. Swabs can be taken pre- and post-hygiene from equipment and the manufacturing environment, as is done by UK manufacturers of high risk foods. Raw materials, components and finished products are also routinely tested. HACCP is verified by testing directly for the pathogen needing to be controlled, at a frequency determined by HACCP. These results are trended and adverse results / trends investigated and actioned.

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To conclude, we welcome ACMSF reviewing potential impacts of regulatory changes both made to date and proposed in relation to the use of biocides for food hygiene assurance, and are happy to offer assistance to ACMSF.

In broad terms we are specifically seeking:

1. Continued ability for FBOs to responsibly use effective biocides
2. Recognition in law that FBOs need to be able to protect hygiene for public health by using effective biocides responsibly
3. A full risk assessment of impacts of biocide regulation review on hygiene including water
4. A rational basis for regulation
5. Cessation of regulation under 396/2005 of biocides used for hygiene and not as pesticides
6. No 'gold plating' of interpretation, e.g. applying PP legislation to end products not listed in 396/2005
7. Clear enforcement guidance and rationale

We have included a number of our documents which we hope you will find helpful.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'K. Goodburn', followed by a horizontal line.

KAARIN GOODBURN MBE

Enclosures:

FBIG guidance: The Use of Biocides in Cleaning and Disinfection (2016)

FBIG statement: The Use of Biocides to Assure Food Hygiene and Safety (10 March 2016)

FBIG letter to BEIS: Plant Protection Products and Biocides (19 June 2018)