

ANNUAL REPORT FROM THE SCIENCE COUNCIL CHAIR (FY 2021/22)

Report by Professor Sandy Thomas

For further information contact Paul Nunn on 07817954647 (Tel)

Email: paul.nunn@food.gov.uk

1. Summary

- 1.1 This report will provide an overview of the work of the Science Council over the past year and reflect on its successes and challenges as well a forward look into the future activities.
- 1.2 The COVID-19 pandemic has been a challenging period for everyone, and we have continued to progress our work programme. We have delivered recommendations on key priorities for food hypersensitivity science and guidance on the quality of non-commissioned evidence from third-parties submitted to the FSA for use in its decision making.
- 1.3 This year the Council has also diversified its portfolio of projects, with the aforementioned rapid critical review on the quality of third-party evidence being a shorter focused review and starting a review of the implications for food safety of changes to achieve net zero carbon.

2. Introduction

- 2.1 The FSA's Science Council is an independent expert committee comprising a Chair and seven members. It was established in April 2017 and our role is to provide high-level, expert strategic insight, challenge and advice to the FSA's Chief Scientific Adviser (CSA), the Board and Executive on the FSA's use of science to deliver its objectives.
- 2.2 Its purpose is to help to ensure that the FSA identifies, sources, integrates and uses the best scientific evidence and expertise from all relevant disciplines to inform and evaluate its work. FSA defines science in a broad and inclusive way, including the natural, physical, social and economic, digital and data sciences. This means the Science Council takes a multidisciplinary approach to deliver and inform its recommendations.
- 2.3 The Council meets four times a year: two open plenary meetings alternating with two closed project meetings (to track delivery of reviews). Open meetings typically include updates on FSA science activity, updates on the status of reviews, implementation of previous Council recommendations as well as discussion of science questions with the FSA.
- 2.4 A more formal system for commissioning reviews from the Science Council has been established from the beginning of this year, with the FSA CSA leading the process. This is to ensure that initial ideas and ambitions for review topics,

wherever they may come from, are discussed by all relevant parties in the FSA and Council to ensure a clear shared vision of what is to be achieved. This should allow smoother and quicker transition from an early question to a fully formed review specification that can then be taken forward by the Council.

3. Recent and Ongoing Work Programme

3.1 In this section I will summarise Science Council activity over the last year. The broad timeline for these and the schedule of main Science Council meetings are shown in the Annex to this report.

Working Group 5 on food hypersensitivity

3.2 The Science Council was asked by the FSA Board to:

- Consider and advise on future research priorities and direction in respect to food hypersensitivity.
- Conduct a review of the science and evidence base for addressing food hypersensitivity, and the part the FSA and others should play in enhancing knowledge.

3.3 This Working Group was one of the most extensive and challenging initiated by the Science Council and was established in [November 2019](#), chaired by [Dr Paul Turner](#), an international expert on food hypersensitivity.

3.4 This review is broadly split into retrospective and prospective parts:

- Consider lessons to be learnt from the previous FSA Food Allergy and Intolerance Research Programme and identify FSA best practice in how science influences decision-making.
- Identify current priorities for those affected by food hypersensitivity and then identify key gaps in current understanding of those priorities to provide future research recommendations. Horizon scanning of the food hypersensitivity environment in the next 5-15 years and beyond to inform future long-term FSA research and policy direction.

3.5 Dr Turner presented the [final report](#) to the [FSA Board on the 16 June 2021](#) which gave recommendations for issues to focus on looking forward to future science addressing food hypersensitivity. This builds on the [interim report](#) to the [FSA Board on 16 September 2020](#) that looked at the FSA's historic work on food hypersensitivity science.

3.6 It is gratifying that many of the reports' recommendations meshed with emerging FSA plans on food hypersensitivity towards the end of the review (especially around FSA areas of research interest on food hypersensitivity). Also, the recommendations based on assessments of prior practice in commissioning food hypersensitivity research have wider practical application and have been incorporated into a toolkit developed by the FSA's Science Assurance and Coordination team on managing research projects. The Science Council will continue to have a keen interest on delivery of the FSA action plan to address our recommendations.

Rapid Evidence Review 1: Critical Review of Third-Party Evidence

- 3.7 After the UK's exit from the EU the FSA has taken on additional decision making and regulatory responsibilities around approving regulated products. The FSA expects it will increasingly be expected to form an independent position in response to a rising volume of evidence submitted by third parties to influence or change its policy.
- 3.8 In March 2020 the FSA's Chair of the Board asked:
- “How should the FSA evaluate the robustness of evidence submitted by non-commissioned third parties in an effort to change our policy, in order to ensure that the evidence considered to inform our advice and recommendations is sufficiently robust and based on the most up to date scientific information?”
- 3.9 The Science Council started work on this review in July 2020 with an aim to establish principles and guidelines for assessing the quality of evidence and provide assurance that the FSA has in place clear, robust and defensible processes for the objective and critical appraisal of unsolicited third-party evidence submitted to the FSA.
- 3.10 [Terms of Reference](#) were agreed in September 2020; It was led by Science Council members [Prof Peter Gregory](#), [Prof Sarah O'Brien](#) Chair and [Prof Sandy Thomas](#).
- 3.11 The decision to pursue a rapid review reflected the need to have guidance in place as soon as possible after the end of the transition period for the UK exiting the EU (31 December 2020) and the likelihood of increased external scrutiny of the FSA's advice and recommendations.
- 3.12 Draft high-level principles and a final report delivered to the FSA Executive Management Team (EMT) in February 2021 and were reviewed and well received by them. This was followed by [an open consultation for 6 weeks during March and April 2021 on the final principles and guidelines](#).
- 3.13 In June 2021 the [final version of the guidelines was then published on the FSA website](#) and [the final report of the review was published on the Science Council website](#).
- 3.14 This is a notable example of the Science Council providing practical guidance to provide assurance on the FSA's use of evidence in its decision making and setting clear expectations on the quality of evidence to third parties. The FSA's Science Assurance and Coordination team have also been raising awareness of the guidelines within the Agency, so when an official is in receipt of un-commissioned third-party evidence they would know how it should be handled with the risk analysis process.

Working Group 6 on Net Zero Carbon and Food Safety

- 3.15 The UK has a legal commitment to reach net zero carbon (NZC) emissions by 2050. This is a topic that has recently been building momentum, with clean growth being one of [the four Grand Challenges set out by the UK Government](#).
- 3.16 The way we grow, process and transport food is a major contributor to climate change, with food production as a whole accounting for more than a quarter of all greenhouse gas emissions.
- 3.17 Reducing this will require dramatic changes in agriculture, manufacturing and transport. The food we buy is driven by a complex interplay between consumer demand, retail marketing and farm production and all of these will see significant changes in practice and technology over the next decade to help reach that net zero carbon ambition.
- 3.18 Consequently, the Science Council and FSA CSA agreed that a deeper understanding of potential implications of achieving net zero on food systems (or identifying areas of uncertainty) would be of considerable value to FSA in pre-empting future policy and evidence needs in this area.
- 3.19 The question to answer is:
- “What are the food safety implications of changes being made to (or affecting) the food system over the next decade to achieve net zero carbon?”
- 3.20 A Working Group was established, led by Science Council members [Mrs Claire Nicholson](#) (WG6 Chair) and [Prof Jonathan Wastling](#) (WG6 Deputy Chair). The review is not looking at the likely impacts of climate change, but the implications of **changes to reduce carbon emissions** with the intention of reducing climate change.
- 3.21 At the ninth Science Council open meeting in June 2021, the Council agreed in its closed session an initial work plan for this review, with [Terms of reference](#) established in October 2021. The early focus of this work is on changes expected in primary production, with the expectation that subsequent reviews will cover all other elements of the food supply chain, from farm to fork. This review is closely related to the Advisory Committee on Social Science’s review of Climate Change and Consumer Behaviour and my team maintain close contact with the ACSS to ensure a joined up approach.
- 3.22 The review is scheduled to deliver its final report to the FSA Board in March 2023 and is divided into four phases:
- Phase 1 (Jun-Oct 2021) is to establish the current landscape via a small number of expert interviews, followed by a wider expert survey of key decarbonisation changes to achieve NZC that will happen to or affect the food system over the next decade.

- Phase 2 (Oct-Dec 2021) is a workshop of experts in November 2021 to look at the decarbonisation changes relevant to primary production and establish which may have implications for food safety.
- Phase 3 (Jan-Jun 2022) will be a deep dive of those changes identified in Phase 2, considering published and grey literature as well as expert evidence.
- Phase 4 (Jun-Nov 2022) will be a review point to establish whether there is time, resources and a need to continue looking at the rest of the food chain via an extension to this review or a follow-up study.

3.23 The final output from this review will be a roadmap for the FSA that will identify key changes to reduce carbon emissions that warrant further investigations because of their potential implications for food safety.

3.24 An interim report will be prepared for presentation in June 2022 to the FSA which will set out the information produced by Phases 1 and 2 of the review (expert survey and workshop) and establish any early recommendations that may emerge from that.

4. Risks, Opportunities and Future Direction

4.1 The Science Council sources and develops its portfolio of reviews based on requests or ideas from the FSA Board, CSA, Executive and from Council members themselves. The new commissioning process mentioned already should improve the speed with which an idea becomes a proposal.

4.2 The Council has recently started to have dedicated sessions to identify emerging issues from across our networks that might interest the FSA. These again are a potential source of ideas for future reviews.

4.3 On the immediate horizon is Working Group 7 which will look at food safety and food supply chain disruption and which we hope to start next year.

4.4 The Science Council is looking forward to tackling a wider range of topics as the FSA looks to broaden its role in protecting consumer wellbeing when it comes to food, for example on sustainable and healthy diets.

4.5 In this vein consumers are increasingly interested in the provenance of their food such as sustainability and good animal health standards. The Science Council understand that discussions are taking place across Government on future labelling approaches led by Defra (who lead on general food labelling policy).

4.6 The Council considers provision of accurate information to consumers to enable informed purchasing decisions is vital, whether on labels or other mechanisms such as point of sale or online. We would encourage FSA to emphasise its role in protecting consumer interests and how consumer interests are served by provision of clear, accurate and honest consumer information.

- 4.7 The Council membership is expanding, to ten to facilitate a greater capacity to take on new challenges using a broader range of expertise.
- 4.8 The Council is now establishing arrangements to provide independent scientific advice on the reviews being carried out by the Strategic Insights Team. Their remit is to undertake horizon scanning activities, futures and foresight analysis, and support the development and implementation of strategy through provision of analysis and assessment.
- 4.9 This team was established in January 2021 in light of Science Council recommendations that the FSA invest resources in horizon scanning and foresight capacity. It is encouraging to see that the recommendations of the Council continue to inform FSA science.
- 4.10 Thinking about the future, the Science Council is five years old and has delivered several reviews on fundamental questions around how the FSA sources and uses science. As I come to the end of my first term as Chair, I see that the FSA has built capacity in areas of science assurance, horizon scanning and strategic planning based on our previous recommendations, so it seems an appropriate time to think about what is next and where our focus should be moving forward.
- 4.11 In addition, looking outside the Council, given the changing responsibilities and burdens on Scientific Advisory Committees (SACs) who have a statutory role, facing fresh systemic changes, now might be a good time to look at how they can build in resilience.
- 4.12 As such I think there is a great opportunity with the upcoming **review of SACs** to look closely at what and how the Science Council and the other SACs deliver as independent advisory bodies to support the work of the FSA.

5. Conclusions

- 5.1 I have found chairing the Science Council to be rewarding and inspiring in that it has given me insight and opportunity to challenge and improve FSA's ways of working in a strategic and practical way. Working with a diverse group of experts to analyse fundamental strategic science questions and issues to support the FSA's vision of protecting consumer interests in food has been one of the most satisfying experiences in my professional career.
- 5.2 I am very pleased with what the Science Council has delivered over the last year. However, as mentioned previously we have reached a key point where we should consider the evolution of the Science Council and this requires us to step back and review what the Council has done, what it should be doing going forwards and how best to achieve that. The upcoming SAC review is therefore a very timely opportunity to do just that.
- 5.3 I am very enthusiastic about the future of the Science Council, and we will continue to provide high-level, expert strategic insight, challenge and advice on the FSA's use of science to deliver FSA objectives of a safe food system.

ANNEX: SUMMARY OF SCIENCE COUNCIL ACTIVITY (RECENT, CURRENT AND ANTICIPATED)

Date	June 2021	September 2021	December 2021	March 2022	June 2022	September 2022	December 2022	March 2023
Science Council plenary	Ninth Open Meeting	Closed Project meeting.	Tenth Open Meeting	Closed Project meeting.	Eleventh Open Meeting	Closed Project meeting.	Twelfth Open Meeting	Closed Project meeting.
Key Outputs	<p>Working Group 5 report presented to FSA Board</p> <p>Start Working Group 6 on net zero-carbon and food safety</p> <p>Deliver Rapid Evidence Review 1 of third party evidence quality</p>		<p>Working Group 6 expert workshop (Nov).</p>	Fifth Annual report to FSA Board	Handover of Working Group 6 Interim report		Completion of Working Group 6 and handover of draft report to the FSA for response formulation (Jan).	<p>Present Working Group 6 report to the FSA Board</p> <p>Sixth Annual report to FSA Board</p>