Cell-cultivated product sandbox workshops

The cell-cultivated product programme includes monthly workshops, each one covering a certain area of production. This page includes summaries of these workshops.

1. Hygiene workshop – 22 and 24 April 2025

The first workshop looked at how the production of cell-cultivated products fits within existing regulations and classifications, and how the principles of Hazard Analysis and Critical Control Points (HACCP) are implemented along the entire production process, from cell sourcing to storage of the final product. These are established rules and regulations that ensure that food is safe to eat. The workshop explored the impacts of applying the regulations to these new foods.

The participants were asked to share their experience with carrying out taste trials for their products. The discussions focused on the details of organising the trials while following the requirements in other countries, including ethical considerations, ensuring the safety of participants and choosing the appropriate venue.

This learning will be used to help the FSA and FSS decide on which tests companies should conduct to demonstrate product safety in Great Britain, and to clarify what companies should do if they wish to conduct taste trials for novel foods.

2. Production workshop – 13 and 15 May 2025

The second workshop explored how companies produce cell-cultivated products. The FSA/FSS and workshop participants explored all stages of production, including sourcing the cells, growing them in a controlled environment, harvesting them and creating the final product.

The participants explained which materials, ingredients and equipment they use, what processes they put in place and how they make sure the final product is safe to eat. This provided valuable insight on the risks and hazards of this new way of producing food. The FSA and FSS will use this learning to ensure that well-known food hazards, as well as the ones specific to these products, are identified and properly managed.

The sessions also explored the nutritional makeup of cell-cultivated products. The FSA and FSS asked participants to explain what the intended use of their products is and how they make sure they are as nutritious as traditional meat products. This is important to ensure that these new products will provide all the necessary nutritional components to consumers' diets without jeopardising safety.

The workshop participants also discussed how companies manage the presence of allergens in their products. The FSA and FSS will use this information in their safety assessment, and to make decisions on ensuring that consumers have all the relevant information to make informed choices if they choose to consume cell cultivated products.

3. Labelling workshop - 18 June 2025

The third workshop looked at how Cell-Cultivated Products (CCPs) might be labelled in Great Britain (Northern Ireland continues to apply EU labelling legislation). Workshop participants shared research and a range of views on terminology, with some participants noting that terms like “cultivated” or “cell-cultured” may be more familiar or acceptable to consumers than others.

Participants also exchanged perspectives on allergen and nutritional labelling, including how to handle potentially allergenic ingredients used during production that may not appear in the final product. Ethical and religious considerations, such as Halal, Kosher, and vegetarian/vegan claims were also raised, but it was noted that these categorisations are outside of the remit of the FSA/ FSS.

International approaches were referenced throughout the session, with Singapore’s guidance on labelling referenced as a potentially useful model. There was interest in how labelling guidance could be made more accessible for industry and aligned with global standards to support businesses operating across multiple markets.

The insights shared during the workshop contribute to a better understanding of how CCPs can be labelled in a way that supports informed consumer choice. If any of these products are authorised for sale in the UK, then clear and consistent labelling will play a key role in helping consumers navigate new food technologies and, importantly, ensure that they are not misled. We will use the information gathered in this workshop in combination with research about consumer perceptions of labelling and information from other regulators to develop a position on labelling. We will then work with partners in other government departments and devolved administrations to create labelling guidance that will guide companies to use labels that do not mislead consumers.

4. Toxicological considerations and growth media workshop – 22 and 23 July 2025

As part of the CCP Sandbox programme, the fourth thematic workshop was held over two days in a hybrid format, bringing together regulators, industry experts, and researchers to examine key toxicological considerations and the growth media safety in the production of cell-cultivated products. The workshop provided a platform for sharing scientific insights and practical experiences to support the development of future regulatory guidance.

Discussions focused on the classification and safety of growth media ingredients, with participants emphasising the importance of transparency, early-stage alignment in product development, and the substitution of high-risk compounds. A tiered risk framework was explored, including some recent updates to ingredient classifications. Quality control challenges were also addressed, such as batch-to-batch variability, sterilisation practices, and supplier verification.

The workshop examined toxicological assessment methodologies, including literature reviews, in vitro testing, and ADME (Absorption, Distribution, Metabolism, and Excretion) profiling. Participants highlighted the need to consider cumulative exposure and bioaccumulation and discussed the use of in silico tools to enhance safety evaluations. Regulatory expectations from international bodies were also reviewed, with particular attention to requirements for growth factors and the implications of genetically modified (GM) designation.

Analytical approaches were also discussed, with emphasis on method validation and consistency, especially for novel compounds. Discussions also covered veterinary medicine residue testing, potential leaching from production materials, and the persistence of cryoprotectants and differentiation factors. Waste management was considered in the context of regulatory compliance and the potential for reuse under defined conditions.

This workshop offered valuable insights into the safety and regulatory landscape for cell-cultivated products. The FSA and FSS will use the insights gathered to support the development

of hazard guidance and safety assessments, helping to build consumer trust in cell-cultivated food products by ensuring access to clear, relevant information for informed decision-making.

5. Regulatory Approvals workshop - 7 October 2025

The fifth Sandbox participant workshop explored the details of the authorisation process of CCPs as novel foods. FSS and the FSA worked with the workshop participants to explore how CCPs fit in the current regulated products authorisation framework and areas where prospective applicants may benefit from further guidance.

Discussions focused on the Terms of Authorisation (ToA) that regulated products must follow to be allowed to enter the GB market. These conditions can vary but cover areas such as the composition of the product, as well as its safety parameters and labelling requirements. FSS and the FSA discussed some of the common types of conditions and sought feedback from participants to understand how these might work in practice in the sector.

The session also explored what might happen when a company wants to use a product beyond its ToA, for example, through scale-up or the company choosing to add its product to a new type of food. FSS and the FSA explained that when companies decide to use a product beyond what its ToA dictate, they must apply again to modify the product's authorisation. Participants shared their insights about how companies might scale up and what changes that brings to the production process, the materials used, as well as the final product.

Participants were also asked to share information on the potential use of other regulated products (for example food additives, enzymes, flavourings) during CCP production. This is important, as any other regulated product, used this way, will have to be authorised for this specific use. Participants also shared insights from the sector on the potential use and composition of scaffolds which are sometimes used to give a specific form to the final product.

Finally, FSS and the FSA explored further the identity of CCPs based on their composition and production. Discussions explored views from the participants about the classification of CCPs as processed or unprocessed, as well as the use of plant or animal based ingredients and materials during the different production stages. While not affecting CCP authorisation as novel foods, the information gathered will help the FSS and the FSA understand where the CCPs fit within the broader food legislation.

The information gained from this workshop will help FSS and the FSA better understand where CCPs fit into the existing regulatory framework for novel foods, which in turn will help us ensure conditions can be placed on Terms of Authorisation for CCP products that are pragmatic while prioritising food safety and consumer protection. The session also provided valuable insight to assist FSS and the FSA create clear and concise guidance to prospective applicants to help them submit high quality dossiers, which will benefit the wider CCP sector.