

Consumer perceptions of precision breeding: Understanding and awareness of food regulation in the UK: food you can trust

General confidence in UK food regulation

There was generally very strong confidence in current UK food regulation, with participants trusting that food available to them is safe. Participants spoke about being able to automatically trust that food that is available on UK shelves is safe, sometimes contrasting this standard to other countries.

"There is a trust that once it reaches the shelf, it's kind of safe otherwise it wouldn't have made its way to the consumer." **(Workshop 2, Northern Ireland)**

"The food you get here is really good. You don't get any problems, really. What you see in some places abroad, it's a totally different ballgame." **(Workshop 2, Wales)**

This trust has been undermined to some extent by previous controversies, with participants sometimes referring to the horse meat scandal, Mad Cow disease, and incidents where livestock farms have been revealed to be unsanitary or inhumane despite being subject to regulations.

Participants were familiar with some of the FSA's activities, particularly the Food Hygiene Rating Scheme, as this is very visible to the public. There were also participants who were familiar with these initiatives but were not aware that the FSA were responsible for these.

They were much less familiar with risk assessments and abattoir inspections but were reassured to learn about this work happening behind the scenes. Participants were often surprised that the FSA gives independent advice to the Government and asked about the Government's obligation to abide by this advice.

"In terms of chlorinated chicken, for instance, [The FSA] might say it's not a good thing to do. Because the government wants a trade deal with the States, they might ignore that." **(Workshop 2, Wales)**

"There is a lot going on behind the scenes and obviously all with the intent of making us safer in what we're eating. I'd no idea really about the FSA before this." **(Workshop 2, England)**

When learning more about the FSA's role, participants responded particularly well to the independent nature of the FSA. They viewed the FSA's work as more trustworthy because it is non-political and does not have a Minister, linking to an underpinning theme of distrust in politicians.

"It was reassuring to hear it's apolitical and not led by Tories, Labour, whoever...there are a lot of people who have connections from industry with political people. I'm sure one or two of them

have asked certain questions or pushed things through parliament. If it's not political I would have more trust in that." **(Workshop 2, Wales)**

Some groups discussed how realistic it is for the FSA to get it right every time. Participants noted that while there have been some food scandals in the past, they are infrequent and there will always be some things that go wrong. However, in the context of precision breeding, this was sometimes given as a reason to be very cautious. Despite trust in the FSA's intentions, these participants felt the consequences of mistakes could be too high.

Participants were also introduced to some example assessment process that new foods may be subject to before being authorised for sale in England (See Workshop 2 materials in Appendix 3).

Participants said they were surprised but reassured that the new food risk assessments process can take up to 2 years. On reflection, they felt that this demonstrated appropriate thoroughness and were reassured that the decision to approve unfamiliar foods for the UK market is a long process. Some participants were also supportive of the proportionate assessment of familiar new foods (such as Chia seeds) compared to unfamiliar new foods (such as Quorn).

"I think it's reassuring that the food on our plate has a journey to get to and that a new product can't be released until it's shown to be safe or if the claims around it, like having more vitamin D etc. have been substantiated, that's reassuring." **(Workshop 2, Northern Ireland)**

Among survey respondents, a large majority of over eight in ten (83%) are confident that the food they currently buy in the UK is safe to eat, while just a small minority (12%) said the opposite. People in Northern Ireland are slightly less confident about current food safety (77% say confident, 17% say not confident).

Who do consumers trust?

A key theme across all workshop discussions was who participants considered trustworthy, and who do they not trust, in the context of precision breeding information and decision-making.

Participants put most of their trust in scientists and experts, as they are perceived as unbiased and qualified for making decisions on a scientifically technical topic.

They also trusted individual farmers, and farmers unions. They felt that these groups would be able to speak to the benefits to small farms and give insight as to whether or not precision bred crops would have a real impact for the UK's agriculture.

Participants also had some trust in regulators more generally, not just the FSA. However, they did interrogate regulator characteristics, valuing independence, transparency, and a good track record for holding corporations or governments to account.

Participants had significant distrust in politicians, and in turn sometimes distrust in government generally. They described a lack of transparency which results in decision making for profit or political gain rather than the public benefit. This distrust was referred to throughout discussions, demonstrating how this shapes views for many people.

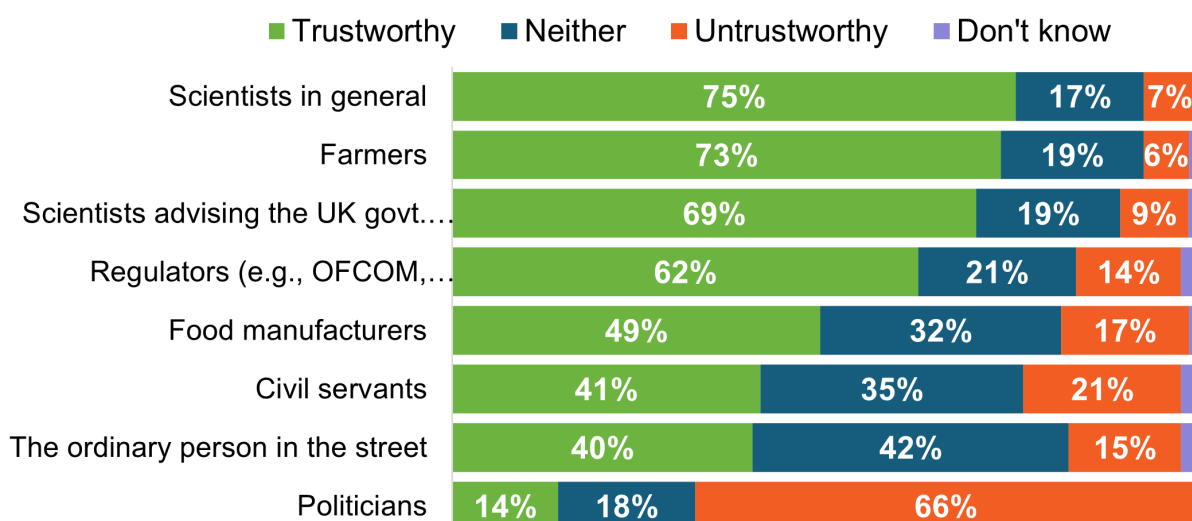
Participants did not trust large corporations who may have an investment or profit incentive in precision breeding, they referred to biotech companies, supermarkets and large food producers. These organisations were sometimes referred to as 'industry' and seen to have financial influence over politicians and decision making.

"While we need to rely on a body such as the FSA to look out on our behalf, I think it's hard for us, especially for those of us in Northern Ireland, to believe it's not political, or impervious to lobbying

efforts on the part of big pharma or the agri[cultural] industry, or things like that." **(Workshop 2, Northern Ireland)**

The survey results showed similar patterns of trust. Around seven in ten trust scientists (75%), farmers (73%) and scientists advising on food (69%), and three in five say the same about regulators such as the FSA (62%). Just under half trust food manufacturers (49%). Trust in groups is similar across nations, although people in Northern Ireland tend to be slightly less trusting of scientists (70% vs 75% among overall sample), farmers (67% vs 73%) and food manufacturers (42% vs 49%).

Figure 9: In general, how trustworthy or untrustworthy would you say these groups are?



Base: All UK respondents (4,177), and in England (1,900), Wales (1,016), Scotland (1,005) and Northern Ireland (256).

What is needed to maintain public trust

Before being introduced to the FSA's proposed regulatory framework, participants were asked what they would want or expect to be in place so that they could trust that precision bred foods were safe.

Governance and regulation

Participants were clear that they wanted unbiased, independent governance of precision breeding. They wanted reassurance that decision making is led by scientists and experts, and not private or political bodies who participants worried may not prioritise public benefit.

Participants also wanted severe consequences for any precision bred food producers who do not comply with regulations. They explained that fines or legal consequences must be severe enough so that they outweigh potential profit incentives for large producers to cut corners with safety regulations.

"We need government inspectors that can issue fines or take away the license if the laws aren't adhered to." **(Workshop 1, England)**

"If necessary, close businesses down who are not complying." **(Workshop 1, England)**

Adequate funding for regulation

Participants wanted to know that the FSA's work to regulate precision bred foods would be adequately funded so that consumers can trust that the processes are followed thoroughly. They worried that government cuts could undermine the FSA's ability to manage the introduction of precision bred foods, or resource appropriate ongoing monitoring of impacts.

"I think the Food Standards Agency do a very good job. It just seems like such a huge thing that it might be too much for a probably underfunded body. That was my concern, that it could be something that quickly accelerates to the point that it's not being controlled effectively"

(Workshop 2, Northern Ireland)

Rigorous safety assessments

Participants were very clear in their desire for thorough testing of all new precision bred products. They wanted to know that risk assessments would have high standards and require strong evidence, but also that there would be ongoing monitoring of precision bred products to identify any long-term impacts to consumers. There was a concern that the government may be keen to rush the introduction of precision bred foods and wanted there to instead be a slow introduction allowing for due diligence on all decisions.

"A lot of trials need to be done before we jump to conclusions...It shouldn't be rushed."

(Workshop 2, England)

Transparency

Due to low trust in politicians and private corporations, participants were concerned about how these parties may influence decision making or development of precision breeding for financial or political gain. To mitigate this, participants wanted full transparency about the organisations and individuals who fund precision breeding research, develop new crops, or produce precision bred products.

"You want to know who's behind this thing. It's always good to know. Once you see who's behind it you can see their agenda." **(Workshop 1, Wales)**

Participants also wanted transparency about precision bred products themselves. They felt it is important for consumers to know which products are precision bred, and to have been well enough informed that they can understand what this means.

Equal access and affordability

Participants wanted any cost saving from precision breeding to be shared across the food chain, so that farm workers, organisations and consumers all benefit from cheaper products or better pay or profit. This was rooted in a concern that large producers will leverage their power to keep any cost savings as additional profit, shutting out smaller organisations and consumers from financial benefits.

"Make sure for every sell there's a good proportion going to small companies. Have those laws in place." **(Workshop 1, Wales)**

Participants also wanted to ensure that precision breeding technology and precision bred seeds were accessible for small producers and developing countries. They worried that without market regulation large producers may monopolise precision breeding technology. They thought this may happen if larger companies can patent new seeds, or if access to precision breeding technology or seeds is too expensive for smaller producers to afford. Participants anticipated that without this regulation, smaller producers may not be able to compete with large precision breeders, who have more resilient crops and therefore lower production costs.

Environmental considerations

Potential impacts on ecosystems and biodiversity were a big concern to participants. However, they struggled to identify actions or regulations that would give them confidence that this risk has been mitigated.

They discussed the possibility of separating precision bred crops from other crops, to avoid cross-pollination. Participants acknowledged that this could be very expensive and difficult to do effectively, as cross-pollination could happen through wind, water, insects or birds. Despite this cost and challenge, there were participants who felt that it was the only acceptable way forward, and a cost associated with developing something new and unknown. They suggested large greenhouses to avoid cross-pollination, at least until more is known about environmental risks.

Participants were also keen to see separate environmental impact risk assessments conducted on new precision bred crops, as part of the authorisation process.