

Food Quality – The Solution?

SIMON WARD¹

ABSTRACT

Tariffs and trade barriers not only fail to ensure the highest food quality but also reduce opportunities for producer innovation. While the government has an important role in ensuring food safety, other aspects associated with food quality are better managed through labelling, allowing consumers to judge food quality on their own terms.

In order to respond to opportunities created by a reduction in tariffs and focus on new food quality drivers the creation of farmer controlled innovation hubs is proposed.

KEYWORDS: Food Quality; Tariffs; Innovation

Food Quality

UK and EU food standards are high. So too are US standards and in fact few products at the farmgate are likely to result in harm to the consumer. The key risks of bacteriological contamination or inclusion of dangerous contaminants are addressed by nearly all food producers. Reasonable quality is essential for any producer. In order to maintain personal health or retain customers. If there is a problem it is usually in the kitchen; not everyone has a refrigerator or the wealth allowing food to be discarded where the health risk is judged to be small.

Managing food quality is a more significant problem where the producer and consumer are separated by a long supply chain and there is not a direct link between the two parties. However, most suppliers in any supply chain rely on repeat sales and are unlikely to risk creating a health hazard. All actors in the supply chain must have clear responsibilities and this is the function of traceability measures. Risk is particularly high where supply cannot be easily traced to an individual such as where amalgamation occurs in shared grain storage or milk tanker. As an additional safeguard any failure must be investigated independently and penalties applied. Inevitably this will require some government intervention.

Imports, Tariffs and the WTO

While safe food is a reasonable expectation, even where this fundamental is achieved it is not necessarily, or even usually, possible to profitably import the product. UK WTO (World Trade Organisation) tariffs, inherited from the EU for agriculture, are high and for many products import is prohibitively expensive irrespective of quality.

The objective of the tariffs is to allow UK/EU producers to receive a higher price and forces UK/EU consumers to pay a higher price than would be the case without

the tariff. Tariffs also provide a source of tax revenue which may not be apparent to those actually paying a premium for the food. Control of goods entering a port is much easier than applying income tax on a population.

Tariffs are not new to UK agriculture. The Corn Laws from 1815 to 1846 imposed restrictions on grain imports and later taxed imports from US and Canada, increasing the return for UK landowners while leading to starvation and riots for the increasingly urban British population that had to pay more for food. Food quality was not an issue and if anything toxins were likely to have been lower on the imported grain from drier parts of the world.

The WTO recognises the reluctance for vested interests to adopt free trade. It is a complex subject, but in essence for a country to ban an import, the WTO requires the country to prove that the food poses a health risk. Other quality attributes may be enforced where there is agreement. This usually requires enforcement of an internationally accepted agreement such as that on slavery. There urgently needs to be consensus in some of the more difficult issues such as reducing pollution and climate change.

Where tariffs are reduced, for example as part of a Free Trade agreement or as in dispute resolution, the agreement can enforce any number of rules. The EU has been unable to demonstrate any health risk associated with hormone-treatment of beef and has consequently been threatened with penalties following appeal to the WTO. The resolution was the creation of a Tariff Rate Quota (TRQ) that allowed the import of a volume of untreated beef subject to a lower tariff. Those damaged by the ban on the export to the EU of hormone-treated beef decided that it was more profitable to export beef into a high priced EU market, with a lower tariff, than export hormone-treated beef subject to the full tariff.

WTO standards are only enforced where a disadvantaged country appeals.

Original submitted July 31 2020; accepted October 02 2020.

¹Corresponding author: CAMBRIDGE, cambridgeshire UNITED KINGDOM. Email: simon.ward@increment.co.uk

Chlorination

Another consumer myth concerns chlorination of chicken.

The data suggest that chlorination of chicken is safer than non-chlorination. The 2017 UK government report on zoonosis states that there were just under 64,000 cases of campylobacter in the UK or 96.8 per 100,000 head of population. In the USA (reported by the Centers for Disease Control and Prevention) there were 20 cases per 100,000. For the vast majority of cases in the UK the source was not identified but where they were, three-quarters were associated with poultry and one-quarter raw milk. Testing of poultry in UK retail outlets (August 2016 to March 2017) showed 57% of UK poultry was contaminated while in the US the reported rate for 2015 was 24%. While not conclusive, it is at least an indicator, that US poultry poses a lower risk than UK production. While chlorination may permit poorer hygiene standards, and thus lower production costs, it is not a necessary condition of chlorination. In terms of safety, chlorination results in fewer cases of campylobacter than (arguably) better hygiene standards in the production process.

Chlorinated chicken does not enter the EU because it is unsafe but because it is subject to a tariff (varies between about £21 and £27 per 100kg). There are lots of other similar barriers in real life associated with protection of producers and not protection of consumers.

Product Labelling

The objective of the WTO is to promote trade and not allow politically motivated objections to be imposed to protect less efficient production or to raise taxes. In the main this is reasonable.

However, there is a role for government taking the lead in environmental protection (pollution, greenhouse gas emissions, destruction of habitat, etc.) and helping to develop global standards. But there is a balance to be maintained. The poorest in society are more worried about food today than future global warming or habitat loss so political compromise is necessary.

However, where there are differences in opinion without an unambiguous scientific basis (genetic modification, chlorination, hormone treatment, organic production and many animal welfare issues) enforcement of labelling provides the solution. This allows each consumer to express an opinion without imposing their views on others.

Systems such as “organic” or “conventional” farming create particular problems where elements are combined that have both desirable and undesirable consequences under a single label. It is up to those using the label to define key features in an unambiguous way and not the government.

Labelling allows product differentiation which is one of the key means of maximising consumer spending. The cost of producing different coffees in a coffee shop differs by 1p or 2p at most while the price charged varies by over 10p.

The prophylactic use of antibiotics in animal feed poses a meaningful risk to human health and labelling use allows product differentiation that is likely to chime with many consumers. The EU and UK classifies coccidiostats as a feed additive while in Norway and USA

classify them as antibiotics (they control protozoa). Norway has phased out prophylactic use while the US has premium antibiotic free supply chains. While an international agreement on classification might be appropriate, in the short term labelling would allow the consumer to determine desirability and a premium for the non-prophylactic producer.

Product differentiation through labelling has already been effective in egg production where over half the eggs consumed in the UK are free range.

The subtleties provided by labelling and the exposure to world markets is an important driver for the future of the UK farming industry.

Innovation

The UK has many disadvantages compared with other countries in commodity food production and with the exception of sheep meat and barley is a net importer of most foodstuffs. However, UK producers have a number of marketing advantages: cost of import is relatively high, transport distances within the UK are small, the local population is large, GDP per head is high and many consumers treat food consumption as a leisure activity. While the low price of food may be seen as a problem for the industry it can also work in the industry's favour.

The UK has a strong technological base that can be used to develop unique products, reduce cost and permit new supply mechanisms.

Opportunities Where Prices are Low

Many consumers are happy to pay a premium for something they believe in, and in many cases the cost of the food material is tiny compared to the rent and labour cost for the retailer. The farm product may be the draw to create the premium brand and is relatively price insensitive allowing the supplier a substantial gain.

The cost of the milk in your takeaway coffee is minuscule compared with rent and labour costs. If the milk provides value through a more efficient dedicated supply system or through supply of quality attributes that, say, improves the ability of the milk to froth in a cappuccino, and the story attracts more customers, the producer price of the milk can be doubled.

The Producers' Marketing Arm

Supermarkets survive on the margin between purchase and sale price. The supermarket's customer is the consumer; the producer's customer is the supermarket. If one producer is prepared to produce at a lower price the supermarket would not expect to pay more for a product that was indistinguishable from the cheaper alternative.

In order for a producer to increase the price paid by a supermarket the product firstly has to be distinct, and secondly, there needs to be something that prevents other producers from supplying the product. If this can be achieved the supermarket becomes a highly effective marketing business allowing a large volume to be sold, sometimes with relatively little effort by the producer. In recent years the drinks industry has capitalised on this with both artisan brewers and gin manufacturers accessing large markets.

Take Back Control

The processor can on occasion lead to disconnection between the producer and retailer. The retailer may gain a premium from product differentiation (e.g. heritage grain in its bread, coccidiostat-free poultry production or low campylobacter poultry meat (e.g. chlorinated)) and the producer may be happy to supply at a price. In contrast, the processor may just see complication and risk. Toll processing (where the processor is paid for the work done and doesn't have to buy the material) can allow the producer to distinguish the product and both the producer and retailer gain a higher price. Carefully managed the contract between producer and processor helps to maintain control over the product. It is worth recalling that Bailey's Irish Cream was the result of an innovation project to dispose of surpluses: the innovators did not manufacture anything.

Profitable production usually requires innovation, a barrier to other parties producing the product and ownership of the idea. A new variety of wheat may allow replacement of imported wheat but the benefit will not go to the grower since the seed cost will largely reflect any increase in price achieved by the producer or if the price is constrained by allowing the seed producer to flood the market to the point that the premium is reduced.

While the best way to own an innovation is to produce the idea, this is not the only way to take a share in the gain. Most start-up innovators require investment and this may be a means for a producer to take a share in the gain by taking on shares in the innovation company. Many problems are soluble by those with specialist knowledge but have no awareness of the farming industry.

Innovation hubs, where groups of farmers identify problems, look for expertise to help solve the problem, hold the patent and invest in the project are under-exploited.

The hub allows the farmer to retain the value of the innovation either through retaining the gain from the idea or via selling the device to others.

There are plenty of ideas:

- Many nutrient recommendations derived from soil analysis and mapping fail to determine the optimum nutrient application while measurement of the nutrient in the grain gives a much better indicator of the optimum fertiliser application. Is there scope for inline grain sampling analysis at harvest?
- Data mapping is fashionable but use of that data is poor. Even crops are sought after via seed rate adjustment while the optimum point (where marginal cost equals marginal gain) may result in increased yield variation across the field. Analysis is required to determine where the gain is actually made.

The list of ideas for better marketing and production is long and means must be found for producers to undertake their own research.

There is also a long list of University projects and projects from existing innovation hubs (such as Barclays Innovation Labs) that require a farmer mentor, someone to trial the product and investment. The proposed innovation hub may provide the means of developing mutual gain.

About the author

Simon Ward is Managing Director of Increment Limited, set up 20 years ago to provide innovative solutions to the industry based on analysis. He was a founder member of The Policy Group helping businesses to understand Brexit impacts and opportunities. Before that he produced the industry newsletter "Inside Track".