The quality of poultry, eggs and egg-products - consumer aspects and expectations

B. SAUNDERS

Consumer Consultant, 38 St Stephen's Avenue, St Albans, Herts., AL3 4AD, United Kingdom
barbaram.saunders@ntlworld.com

Keywords: consumer; Salmonella; Campylobacter; chicken; eggs

A consumer’s perspective

CONSUMER EXPECTATIONS
Consumer views about food are influenced by a wide variety of factors, including income and affordability, where they live and the availability of particular foodstuffs, their value system, culture and ethics. Some consumers are interested in animal health and welfare; the way food is produced and animals reared; and the measures taken to control disease outbreaks and are concerned particularly about antibiotic use. Others have concerns about the impact of different methods of production on the environment and the impact of pesticide and other residues on food. Indeed in the UK, interest in less intensive agricultural systems is growing – 20% say it is worth paying more for organic produce, according to Which?

SAFETY – THE PRIMARY CONCERN
In a modern society, consumers expect all food on sale to be ‘safe’ (however that is defined). They want to buy wholesome, safe products of reasonable quality for a fair price. But, individual consumers cannot judge whether particular foodstuffs are ‘safe’ at the time of purchase or consumption, whether at home or when eating out. Depending on their age and socio-economic status, they may not understand the particular risks which individual foods pose. They may face a barrage of conflicting information and be worried by high profile newspaper articles about emerging infections originating from food. The poultry industry has been under the spotlight in particular because of Salmonella and Campylobacter and more recently because of avian influenza. They have to rely on suppliers, standards bodies and food authorities to make those judgements on their behalf and ensure that regulatory controls are applied in practice. To make informed choices, consumers need sufficient information about the products on sale and the standards by which they have been produced. Considerable trust is placed in suppliers, and particularly supermarket chains, to supply such information and meet their expectations on an ongoing basis.

THE SALMONELLA STORY – A CASE STUDY
Salmonella in poultry and eggs posed significant risk for UK consumers in the 1990s and became a major consumer issue. A fifth of all reported cases of infectious intestinal disease were associated with poultry and the organisms most frequently reported were Salmonella. Research showing that between one third and a half of chicken on retail sale contained Salmonella caused an outcry. Industry blamed consumers for their lack of hygiene in domestic kitchens, while journalists and government ministers pointed a finger at low hygiene standards in farming, high-density production and contamination in the poultry and eggs on sale. Public authorities were forced to respond to strengthen legislation, improve the standards of domestic production, and find ways of reducing contamination between the farm and table.

Towards the end of the last century a range of measures were introduced by the EU, as part of the zoonoses action programme and domestically to heighten awareness of the issues, raise standards and enhance control. These included collective action by the egg and poultry sectors to produce new farm assurance standards supported by independent inspection on farms. Campaigns to raise hygiene standards in slaughterhouses, reduce the risk of cross contamination and train operatives in processing and catering enterprises; and inform consumers of the most appropriate ways to store and
cook poultry and eggs were introduced as a result of public pressure. HACCP analysis became a byword for risk control strategies within the food industry. The introduction of vaccination for chicken flocks has had a major role in this; 80% of laying hens in the UK are now vaccinated against Salmonella Enteritidis.

The UK Food Standards Agency (FSA) introduced a high profile Foodborne Disease Strategy early in its existence in a deliberate attempt to co-ordinate actions and reduce the unacceptably high levels of food poisoning. By 2001, the FSA claimed that the Salmonella control programme in the UK was a success. Food poisoning from Salmonella fell by 37% between 1998 – 2001 to its lowest level since 1985. Retail chicken sampled by the FSA in 2001 also showed fewer than 6% of samples contained Salmonella, and the level in eggs had reduced by one third from the mid-90s - a vast improvement. Indeed, the FSA target to reduce Salmonella contamination by 50% by 2005 was achieved well before time.

ARE THE RISKS UNDER CONTROL NOW?

Despite the undoubted and significant reduction, no-one can afford to be complacent. The average level of contamination (5.7%) masked significant variation in different parts of the UK with levels in Scotland and Northern Ireland double those in England and Wales. Levels were also significantly higher in frozen chicken compared with fresh, but little difference was apparent between whole birds and portions, whether wrapped or unwrapped and with or without giblets. There remains scope to enhance bio-security on farms and the UK’s new animal health and welfare strategy will give further impetus to the development of farm health plans. This will be crucial to limit disease and its potential to spread when antibiotic growth promoters are removed from the market in 2006. Cutting-plant standards could also be raised since regulators and scientists are questioning the speed of processing, cross-contamination risks, the adequacy of veterinary supervision and commercial pressures. Consumers will still need to be vigilant in their handling of what in its raw state remains a high-risk product.

Nearly 14% of imported frozen chicken in 2001 carried Salmonella contamination, significantly higher than domestic production. Furthermore, while contamination with S. Enteritidis PT4 associated with poultry in the UK fell dramatically, the incidence of other types seems to be increasing. There are suggestions that this may be associated with imported eggs and poultry products. Consumers have successfully fought for the banning of prophylactic antibiotics in animal feed in the European market and have campaigned for higher standards of production from farm to fork. They will not be well served if one of the consequences of raising standards and hence domestic costs is import substitution with produce which has been produced potentially to lower quality and welfare standards and which may introduce new strains of diseases which have been controlled at home. Can consumers be confident that the risks in the global market are now under control?

Campylobacter is now the major cause of infectious intestinal disease in the UK with 56% contamination rates in fresh and 31% in frozen chicken sampled in 2001. Levels of Campylobacter in chickens on retail sale are similar to the levels found for Salmonella a decade before. Contaminated produce is entering domestic and catering premises on a daily basis and exposing the public to unacceptable rates of contamination. The fact that only a small number of organisms can cause infection in humans makes it all the more urgent to develop appropriate control measures. While Campylobacter reduction is now receiving more priority, it is regrettable that an issue identified by the UK Advisory Committee on the Microbiological Safety of Food (ACMSF) in 1993 has taken ten years to be taken seriously by the public authorities and its extensive presence in the environment will make it a harder problem to solve.

WHAT ACTIONS DO CONSUMERS EXPECT?

Are industry standards adequate or should they be raised further? Consumers expect commercial suppliers to seek to push standards up over time, and respond to improvements in technology and scientific understanding. Around 90% of poultry sold in the UK is produced to Assured Chicken Production standards. Retailers may supplement these depending on their consumer profiles and what their particular customers want from them. Standards bodies need to ensure that their base-line standards are high and include an annual independent inspection. They can incorporate improved bio-security requirements, ensure HACCP plans are adhered to, and that there is regular monitoring for Salmonella and Campylobacter. Consumers strongly support the promotion of good bio-security but do not expect it to happen without substantial industry and retail support backed up by enforcement strategies where industry-based arrangements prove insufficient. Specific Campylobacter control
measures on farms and in slaughterhouses need to be developed and taken into account in the standards. Clear information and accurate labelling should also form part of the strategy from Standards Bodies to keep consumers informed of what their standards are, and how they contribute to consumer safety. Marketing campaigns are insufficient in themselves; consumers want clear information from which they can make informed judgements about the effectiveness of what is being done, so they can assess the product on offer objectively. Independent verification is a key element in consumer confidence. Once lost, such confidence is slow to recover.

The establishment of the UK Food Standards Agency and European Food Safety Authority have provided an independent focus for regulation and raised consumer expectations that their interests will be protected and defended by the public authorities. In my view, the extensive legal framework governing food safety should be adequate to control hygiene standards from the point of production to consumption, provided current requirements are met and suppliers comply with their legal obligations. EU action will not succeed unless HACCP plans are required throughout the food chain and consumer groups believe that these should be compulsory for farmers. The Zoonoses controls probably need to be extended to a wider range of Salmonella serotypes as foreseen in the Commission’s control programmes and action plans should be introduced at a Community level to control Campylobacter. Existing controls on feed hygiene need to be maintained and where appropriate improved and the effectiveness of the anti-biotic ban should be monitored. Consumers have been concerned that the Commission has been slow to introduce marketing restrictions for contaminated eggs and poultry, and will seek examples of good practice to act as benchmarks for satisfactory production systems for the future.

Regrettably, not all producers meet satisfactory standards or are prepared to have their production systems independently inspected. Thus, effective enforcement arrangements form the final back-stop for an effective regulatory policy. Controls on farm, in the slaughterhouses and in processing and packing plants need to be maintained routinely and monitored appropriately. The EU has defined minimum standards and continues to develop its control programmes. EFSA’s role in monitoring the effectiveness of controls and the extent of disease and ongoing contamination throughout the food chain is very important as a means of assuring national control programmes. Enforcement is the last line of defence for consumers. The Commission should monitor imports from third countries, and make spot checks in countries exporting to the EU so that consumers can be confident that whatever the origin of their poultry and egg products, they are not exposed to unreasonable risks over which they have no control.

In conclusion, people expect poultry and egg products to be as safe as reasonably practical. That means, they should be free from contamination with human pathogens. Consumers generally oppose the use of irradiation, or application of pharmaceutical products such as anti-biotics to mask poor hygiene. They recognise that monitoring regimes need to be put in place to prevent complacency. The potential risk from new diseases such as Sars, and the evolution of new strains of known pathogens are causing increasing concern to the public and regulatory authorities. Industry-wide standards have an important role to play, but are more reliable where they are supported by independent inspection. Strict controls and co-ordinated actions by public authorities continue to be necessary to minimise the risk to personal health. The provision of appropriate information so the public can manage specific risks that cannot be controlled is also a function of government and the food authorities. Satisfactory local and national arrangements to enforce the legislation, with sanctions and heavy penalties for serious non-compliance, remain the last feature of a food safety policy which aims to protect consumer safety and public health.