CONSUMER CONCERNS AND FEED INDUSTRY RESPONSE TO THOSE CONCERNS

PATRICK GARLAND

Summary

The UK livestock and associated supply industries have faced several testing challenges in the form of food safety scares over the last 20 years. Not only have there been issues which impact on human health, there have been concerns expressed about potential risks associated with novel technology in the form of genetic modification (GM) as well as the use of antibiotics in animal feeds and welfare of intensively farmed livestock. This paper summarises the steps taken by the UK industry to restore confidence in food production and in particular the response of the feed industry to demonstrate the safety of animal feeds.

I. INTRODUCTION

Despite the high profile food safety issues experienced in the UK since the late 1980’s (Salmonella in eggs, bovine spongiform encephalopathy (BSE) and E.coli in beef) the UK consumer has a high degree of confidence in the safety of food offered for sale. In detailed consumer studies some 75% of respondents expressed confidence in the food available and there was a general view that whilst the link between Creutzfeldt-Jakob Disease (CJD) and BSE was shocking, over two thirds of consumers were not concerned about the risk to themselves of BSE (IGD, 2000). In a previous survey British consumers were found to regard farming and food manufacturers standards in the UK as being superior to those overseas (IGD, 1999).

However, to say that the UK consumer has no concerns about food would be incorrect, from the same series of studies it was determined that in relation to food production the single greatest area on which concern is expressed is that of hygiene at the food processing site and on farm. Following close behind were animal welfare issues then GM.

These concerns are not necessarily clearly expressed in the decision making process leading to the purchase of food since price is the single most influential factor with GM, origin and source of ingredients being relatively minor factors (IGD, 2000). This apparently confusing picture is perhaps better understood when in light of the fact that food safety is regarded as a given. Regardless of the price, status or origin the UK consumer expects all food on offer to be safe.

The apparent confidence is possibly a reflection of the efforts undertaken by government, food retailers, farming industries and the feed industry to prevent reoccurrence of crises already seen and to minimise the chances of another BSE-like situation occurring.

The response of the feed industry has been guided by a number of external factors as well as by determining its own needs. At the outset legislative requirements and government codes have provided a base line upon which other interested parties have built their own requirements.

II. INDUSTRY STRUCTURE

To an extent there has been an evolution amongst the larger compounders to develop mills dedicated to species groups whilst smaller businesses have had to decide which sectors are their core business activity and exit from less attractive areas. This began to happen in the
wake of the *Salmonella* problems in the poultry industry, with broiler breeder feeds being taken back into integrated mills and the integrators trying to produce as much as possible of their feed requirements themselves.

Following on from *Salmonella* the BSE crisis stimulated the greatest changes in the industry. It was clear that mills handling meat and bone meal would not be looked upon favourably by the dairy sector. This encouraged compounders to specialise manufacture at individual mills even after the complete banning of mammalian protein in 1996. This had several advantages in that mammalian protein materials could be excluded from cattle mills without impact on monogastric formulations, whilst materials of a higher salmonella risk normally associated with ruminants were not present in pig and poultry mills. Also, capital investments at all plants could be directed at the target market. This has driven the current structure and distribution of the UK feed industry. The intensive livestock industry has migrated east to where the bulk of the cereals are produced and the ruminant sectors have gravitated to the west where it is economic to have pasture. Therefore we now see relatively few mills making ruminant rations in the east. Capital investment in relation to food safety issues has allowed development of heat-treated mash for poultry breeding stock, heat treatment of broiler and turkey rations and acid addition for all classes of poultry. Most poultry lines in monogastric mills are now equipped with box or bunker type coolers rather than horizontal flat deck coolers, presses and conveyors are lagged and trace heated to prevent condensation and food grade stainless steel is used downstream of mixing or heat treatment. These investments have been encouraged by the close monitoring of feed and manufacturing processes for *Salmonella* and total enterobacteriaceae, the latter quickly highlights areas of weakness and the potential for undesirable bacterial contamination.

Monitoring of feeds for drug residues has also encouraged investment in facilities that reduce the risk of additive carry over between batches.

### III. CODES OF PRACTICE

There have been and continue to be many codes of practice within the agricultural industry and they are continually changing to reflect consumer expectations. Initially there were government codes with regard to salmonella, and then individual retailers developed their own codes of practice. The latter evolved to address new concerns and, to some extent, compete with each other. This led to an ever increasing cost of compliance and since the retailer codes were usually directed at specific industry sectors those industry sectors developed their own codes of practice.

We now have a situation where most retailers have a code of practice for each livestock sector. These inevitably vary in degree of detail but most will address feed issues and require audits of feed mills by their own staff or representatives. These audits are usually facilitated via the retailers' suppliers who might also require access to audits.

Since the retailer codes can create some duplication and the livestock industry sectors have recognised the need to promote their products, a logical step is to try to create species codes of practice that are acceptable to all retailers. Therefore there are codes of practice for all of the main livestock groups. Again, these all contain feed controls.

In response to this situation and having a genuine desire to demonstrate the professional approach taken by feed manufacturers the compounders trade association, United Kingdom Agricultural Supply Trade Association (UKASTA) created a set of assurance schemes which cover all aspects of the manufacture and supply of livestock feeds. The schemes apply to:
• Sources of Feed Ingredients
• Producers and Distributors of Feeds
• Production and Delivery of Compound Feeds
• Storage, Haulage and Laboratory Analysis of Combinable Crops

The above are covered by three schemes, namely:

UFAS (UKASTA Feed Assurance Scheme) the first scheme upon which the set of
two is based. It has additional modules which cover manufacture of non GM feeds and a
major retailer’s (Tesco’s) additional requirements. The scheme is independently audited to
the European standard EN45011.

FEMAS (Feed Materials Assurance Scheme) covers the sourcing and production of
feed ingredients back to country of origin. By July 2004 all ingredients will have to be
FEMAS compliant. This scheme is also accredited under EN45011.

TASCC (Trade Assurance Scheme for Combinable Crops) covers the handling of
combinable crops once they leave the farm. Auditors are accredited under UKAS (UK
Accreditation Service).

Both the UFAS and FEMAS schemes are based on HACCP principles (Hazard
Analysis and Critical Control Point) and member companies are expected to use HACCP
within their own documented operating procedures.

A significant success of UFAS is that it has been recognised as a credible and robust
means of ensuring high standards of feed manufacture. In turn a number of retailers have
accepted the scheme and do not require their own audit of feed facilities making rations for
their suppliers. The same applies to livestock sector assurance schemes. This has reduced the
number and cost of external audits that individual feed mills are expected to host and ensures
that the standards required are consistently achieved. Another advantage is that the objective
of UFAS is for feed mills to reach an acceptable standard rather than, as with some retailers
codes, to follow prescribed procedures to meet the required level of safe feed manufacture.

IV. LIVESTOCK SECTOR CODES

Since the feed and poultry industries are inextricably linked it is appropriate to briefly
discuss the three main sector codes of practice in the context of addressing consumer
concerns. These are the Code of Practice for Lion Eggs, Assured Chicken Production and
Quality British Turkey. In all cases full traceability of food products is available and the
detailed codes or standards cover all aspects of production from parent stock, hatchery,
growing or laying farms, processing and all inputs including feed. As previously mentioned,
the feed element is covered by requiring producers to use feed from UFAS (or equivalent)
accredited mills.

The Lion Code is the longest standing of the three and is arguably the most successful
to date. It is an integral part of the egg marketing campaign run by the British Egg Industry
Council with all eggs from approved producers having the Lion logo printed on them as well
as a use by date. A significant investment in television and poster advertising has raised the
public awareness of eggs as a healthy, nutritious and convenient food. The fact that the
reduction in human salmonellosis has been correlated with the compulsory Salmonella
vaccination of all Lion Code hens has helped reinforce the positive image of eggs. The
success of the Lion Code and the marketing campaign is measured in a reversal of the long
term decline in egg consumption to give an actual increase of approximately 15 eggs per
capita.

The Assured Chicken Production (ACP) scheme can now boast 90% of UK produced
chicken as being under its guidance. All aspects of chicken production from breeding to
processing including Poussin and Free Range are covered. It has allowed the industry to respond in a proactive manner to consumer issues by providing well balanced and logical responses to some of the media inspired criticisms of poultry farming. As with other schemes ACP accreditation allows members to display the Red Tractor logo which signifies that the product meets the requirements of the British Farm Standard, which is independently monitored by Assured Food Standards.

V. GM, WELFARE AND ANTIBIOTICS

These three areas are recognised as areas of concern for UK consumers (IGD, 2000) but in real terms there is relatively little that the feed industry can do to allay those concerns. The most practical response is to endeavour to supply, where required, feeds of non GM origin, without the inclusion of antibiotic digestive enhancers and have feeds available for extensively produced livestock. This is not without difficulty since meeting a broad range of needs for basically similar nutritional products creates product proliferation on a huge scale. Typically in a monogastric feed mill between 200 and 250 base product formulations can be offered before any medicated rations are considered. The non GM requirements of customers vary considerably; some have no concern, so that USA material can be used, through northern Brazilian, which is not meant to be GM (at present); others specify less than one percent GM with full traceability. This means that some mills will carry three different sources of HiPro soya.

The feed industry has responded to both the demands of its customers and the general sentiment of the UK consumer. It has become much more open to inspection and audit. Most companies now have an open mill policy and the routine disclosure of information regarding raw material and finished product analysis as well as microbiological status is expected.

In recent years there have been several major food safety incidents related to feed and feed ingredients in the EU, these have included dioxin contamination of fats, antibiotic residues in fishmeal, hormone contamination of molasses, herbicide in organic wheat and veterinary residues in imported chicken meat. The UK feed industry has not been involved in any of these situations and there is good reason to credit this to the successful implementation of the codes put together by the industry. The fact that EU feed legislation will enshrine much of the UFAS and FEMAS codes is also recognition of their value.

REFERENCES
